

# *Essay on Oeconomy*

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Almost everyone agrees on the many challenges facing the contemporary world; but neither repeating them nor searching for their primary cause is of much use in addressing them. We need to undertake a thorough and relevant analysis of the interactions between very diverse factors if there is to be any hope of clearing the way for a general alternative.

##### **“Globalization-as-Interdependence” vs. Economic Globalization**

The globalization debate is often confusing since the term “globalization” is used in reference to two profoundly different realities: the irreversible interdependence of societies among themselves and with the biosphere, on one side, and the reversible process of economic globalization, on the other. Introducing a distinction between these two may help us in searching for an alternative to economic globalization that fully accepts the reality of our global interdependence.

##### **The Detour by Way of Long Term History**

In order to imagine the future and set aside received ideas, we first need to understand the long term process that, since the end of the Middle Ages, has led us to base our societies on science and nature, on the passion to possess and on business activities. By recognizing the circumstantial character of things that we take for granted and that might seem eternal, we can once again discover the freedom to invent our future.

##### **Every Epoch has its Pivotal Actors**

During the last fifty years, the transnational firm was the structuring, pivotal actor of our societies. Though it is unlikely that it will keep this central place in the 21<sup>st</sup>-century, the historical perspective may help us to understand the firm and other pivotal actors of the past.

#### **2. Economic Globalization Called into Question**

##### **The Dividing Line between ‘Pro’ and ‘Anti’ Globalization Forces**

Since the fall of the Berlin Wall, the historical opposition pitting supporters and opponents of capitalism against one another has been replaced by confrontation between supporters and opponents of economic globalization. The former attribute all virtues to it, the latter charge it with all evils. But it is not easy to untangle the knot of causes and effects, and single out the particular impact of globalization. According to Martin Wolf, economic globalization is the motor of progress and its opponents are dangerous nostalgics and madmen; according to René

Passet, it is nothing less than a plot to divide up the world in an orderly fashion to the benefit of a few. Neither of these stirring accounts is sufficient to explain the nature of globalization.

#### Economic Globalization or Internationalization?

For supporters and opponents of free trade alike, four factors have driven the internationalization of production and commerce: technical change; the opening up of emerging economies like China and India to the outside world; the concentration of energy resources in a few regions of the world; population aging in rich countries. Any alternative to the present economic system must take these factors into account.

#### Who Benefits from Economic Globalization?

A detailed examination of the available quantitative data is far from bearing out the simplistic view according to which economic globalization only benefits the capital owners, increases the inequality between countries and wrecks public action.

#### Towards a New Global Distribution of Wealth

Behind the controversy over economic globalization lies another question, much more decisive for the future: the need for a fair distribution of energy and natural resources among all regions of the world. This issue has been avoided up till now.

### 3. Classical Economic Doctrine under Fire

#### Ideologies Die Hard

In contrast to the natural sciences, the foundations of classical economics have hardly budged in over two centuries. The dominant economic thought reminds thus more of an ideology that gives legitimacy to the existing institutional order rather than of an experimental science, and it is precisely why it is still so dominant. The collapse of Communism deprived this ideology of its only rival and other forms of criticism remain fragmentary.

#### There Is Nothing Scientific About the ‘Doxa’

Though classical economic theory reigns supreme in the universities, its postulates are very much debatable: they are based on false hypotheses, only seem to be scientific, confuse means for ends, do a poor job of taking the evolution of technical systems into account, under-estimate the importance of history and are based on analogies with mechanical systems that are themselves outdated.

#### The Economy Only Makes Sense When It Observes Its Real Agents

The economy is not composed of abstract laws but rather of concrete agents and the relations between them. Businesses and states are the two main agents; businesses are constantly being transformed and the same holds for state regulations.

#### Not All Goods and Services Are Meant to be Traded in Market

Rather than transforming everything into a commodity, the notion of ‘public goods’ removes some of the goods and services from the free play of the market, even when they are supplied by private businesses.

### The Biosphere Is the Blind Spot of Classical Economic Thought

Our societies must think of themselves as integral parts of ecosystems and use the ecosystem model as a source of inspiration for organizing their own internal activities. This is not the approach taken by classical economics and that fact in itself almost suffices to discredit it.

### The Economy Is Only Understandable on the Basis of an Analysis of Paths of Development

Whereas traditional economy prefers general theories and dogmatic positions, we should patiently study the facts and the singularity of each historical path of development.

## 4. Emerging Alternatives

### From the Accumulation of Goods to an Economy of Happiness

The pursuit of indefinite growth is the greatest threat to the planet; though it is supposed to ensure happiness, it falls well short of the mark, as shown by numerous surveys, which invites a major shift in public policy and economic thought.

### Towards a Responsible, Plural and Interdependent Economy

Heirs of the great 19<sup>th</sup>-century cooperative tradition promote still today an interdependent economic life in which agents simultaneously pursue financial, social and environmental objectives. New practices and challenges to the presuppositions of the dominant economy have been fermenting for many years, but this movement has so far been unable to constitute a credible global alternative.

### When the Economy Becomes Thrifty

Our economies consume a great deal of energy and raw material. The efforts that have been made to unhitch economic development from consumption put us on the path of a new approach to time and space, and reveal our own ignorance concerning the ecological impact of our way of life and highlighting the role that global value chains and territorial economy will play in the future.

### Towards Territorial Ecology and Functional Economy

Economic life cannot be thought of as series of activities that are separated from one another; like the components of an ecosystem, exchanges must be organized among themselves. In order to save raw material and energy, we must think in terms of services provided rather than in terms of products. These two observations lead to a renewed approach to territory and capital, and highlight *normalization* as the essential role played by public agents.

## 5. From the Economy to the Œconomy

### Œconomy, Returning to the Source

Up till the 18<sup>th</sup> century, one spoke of 'œconomics', not 'economics'. "The rules of household management", œconomics was, according to the botanist Carl von Linné, "the art of putting all of the goods of nature to good use". It is this definition that we must rediscover.

### The Art of Bifurcation

Like great ocean liners, societies advance rapidly but turn slowly; large organizations are good at innovating along the margins but are incapable of calling themselves into question; the radical innovation that is today necessary must thus come from the outside.

### Actors, Scales and Steps of a Strategy of Change

Systematic change is difficult because it relies on multiple conditions that have to do with the actors, scales and steps of the strategy. These various conditions are described and illustrated in the case of the œconomy.

### Conclusions: The Definition and Specifications of the Œconomy

At the end of this first part, we may define the œconomy as the branch of governance that concerns the production and distribution of goods and services according to regimes of governance adapted to their nature and purpose. The specifications of the œconomy bring together the principle conclusions of the first, analytic part of the book, in order to provide a foundation for propositions advanced in the second part.

## **Part Two – The General Principles of the Œconomy**

### 1. The Œconomy, A Branch of Governance

#### Lessons of Governance, Lessons for the Œconomy

Governance is the art of self-management in human societies. At each stage of their history and in order to meet new challenges, societies must invent new forms of regulation, new modes of governance. Those who fail to do so are punished by crises and wars. All regulation has a cost, and this cost can become intolerable. Analyzing the œconomy from the point of view of governance allows us to understand current malfunctions and offers keys for understanding the (quite predictable) crisis that broke out in 2007-2008.

#### The Œconomy Must Draw Its Inspiration from General Principles of Governance

As a branch of governance, the œconomy must satisfy the five fundamental principles of governance: legitimacy and rootedness; democracy and citizenship; multi-level management; appropriate institutional arrangements, coproduction of the public interest. This will be the interpretative framework used in the remainder of the book.

#### Governance and Œconomy in the Age of Globalization

The planet is our common home. The œconomy can thus no longer be conceived at the scale of a single nation. It must contribute to forging awareness of our common destiny – which does not mean, however, a unified world market that ignores local specificities. The world œconomy must allow for a fair distribution of wealth and a free circulation of knowledge and know-how. It must, at the end of each cycle, return the system taken as a whole in a better state: it is the stocks that count, not the flows.

#### From the Art of Governance to the Art of Œconomy

The interest of applying the art of governance to the economy is to be found in four dimensions: the art of reconciling unity and diversity, the art of managing relations, sorely lacking in classical

economic theory but of great importance; the art of conceiving cooperative processes and apprenticeships far removed from free competition; the art, finally, of conceiving various forms of regulation and “rules of the game” that would transform myriad interactions into global regulation.

#### Relations between Human Beings and with Nature: An Issue Shared by Governance and the Economy

Today’s world suffers from a threefold crisis of relations: relations between individuals, relation between societies and relations between humanity and the biosphere. In order to contribute to overcoming this crisis, the economy must transform our systems of production and consumption so they foster and strengthen concrete interpersonal relations. In the case of consumption, it also must distinguish between activities that maintain these relations and those that subtract resources from the ecosystem.

#### The Economy Draws Upon Several Types of Capital

Classical economics, centered on substituting capital for labor, obscures the diversity of flows and capital affecting the economy. We should distinguish between three types of flow (labor, natural resources, information) and four types of capital (material, immaterial, human and natural). These forms of capital are all mixed, both public and private at the same time. We need to develop new measurement tools to monitor how they evolve.

## 2. The Various Categories of Goods and Services and the Regimes of Governance of Each of Them

### Introduction: The Various Ways to Classify Goods and Services: the “Share-and-Divide-Test”

Not all of the goods and services produced are equivalent and there is no reason that all should fall under the same regime of governance. But how are these goods and services to be classified? Traditionally, they are distinguished by their purpose or by their mode of production. These distinctions are useful but insufficient. A new classification based on their nature is offered here. On the basis of a “share-and-divide test”, goods and services are classified into four categories.

#### Category One Goods, Which Are Destroyed By Being Shared

Category one goods are diverse: monuments classified as part of humanity’s heritage, climate, domestic and wild biodiversity, oceanic fishing stocks, large natural spaces. They generally have a value for humanity as a whole but are specific to a particular territory. Those who benefit from them are not those who preserve them. Many of them are necessary for the production of commercial goods. All of these characteristics argue for a regime of governance combining several forms of action and several scales of regulation.

#### Category Two Goods, Which Are Divided by Being Shared but Are of Finite Quantity

Water, soil and fossil energy belong to this category. Their regime of governance is based on a twofold principle of justice (in the distribution, since the available quantity is finite) and efficiency (in the extraction, management and regeneration of these goods). Energy is a good example of the implementation of negotiable quotas and water a good example of the implementation of the principle of active subsidiarity.

Category three Goods, Which Are Divided By Being Shared but Are of Indeterminate Quantity  
These are classic goods and services which owe the major part of their value to human creativity, intelligence and labor. In their case, the market remains an unequaled regulation mechanism but on condition that it ensures the traceability of the production process, formulates new ways of arbitrating collective and individual preferences and reduces present transaction costs.

Category Four Goods, Which Increase in Being Shared

Love, knowledge, experience, farming seed stocks, social networks, culture and all that concerns living only exists through sharing. It is illegitimate to seek to reduce their natural abundance and destroy their very conditions of production by claiming to transform them into commercial goods and services. Their regime of governance is based on free access and collective ownership.

Summary of the Regimes of Governance Applicable to the Various Categories of Goods

### 3. The Legitimacy of the Economy

The Economy Must Be Legitimate

As the Chinese political theorist Lu Jia once said, legitimacy is the feeling that power is exercised according to just principles and by appropriate leaders. The question of the economy's legitimacy thus arises in regards to the system itself as well as to its agents.

Economic Activity Must Target a Need Felt by the Community

Businesses cannot hope to base their legitimacy on such generalities as 'the creation of wealth' or the 'creation of jobs', and their leaders cannot claim for themselves the right to define the common good. In order to be legitimate, businesses need to concretely show that they contribute to the common good and that their activities are meaningful.

The Exercise of Economic Power Presupposes Respect for a Principle of Fairness

When citizens have the feeling that their economic leaders do not fall under the same justice and do not follow the same code of honor as the rest of society, the resulting discrepancy undermines the trust upon which the economic and social systems are based. What's more, fairness cannot exist without voluntary restraint in the balance of power between countries and unless countries are treated similarly independently of their power.

The Legitimacy of the Economy Is Based on Shared and Recognized Values and Principles

The common ethical ground is formulated in the Charter of Human Responsibilities. It is the foundation of the social contract in a globalized system. Respect for this ethical foundation is not an afterthought or a moralization of the economy; it is the very condition for trust in the system and its actors.

To Be Legitimate, Power Must Be Efficiently Exercised by Competent and Trustworthy Leaders

The question of the responsibility of the leaders particularly arises in the case of large companies. As the impact of their activity exceeds by far the interest of stockholders and the national territory, the notion of responsibility must necessarily be extended to other stake-holders and transcend national frontiers. We can contribute to this by changing the way in which leaders

are appointed and remunerated and by establishing the principle of ‘international law for international actors’.

#### Legitimacy Presupposes the Implementation of the Principle of Least Constraint

All regulation implies that we obey to some rules, but these rules must be as unconstraining as possible, they must be duly justified and must not conflict with common sense or pursue an arbitrary aim. This is why everyone perceives, for instance, the right to match idle labor and unsatisfied needs in a society, to reuse seeds, to preserve local uses or to refuse GMOs as a natural right. Any law that forbids these things is ipso facto illegitimate.

#### The Economy Must Contribute to the Fulfillment and Well-Being of All

The legitimacy of the economy depends on its ability to pursue the society’s objectives. Production and exchange do not only provide revenue; in order to contribute to the well-being of all, the economy must offer all people the conditions of a dignified life and the possibility to create, acquire social capital and achieve coherence between what one does and what one believes.

#### The Economy Must Contribute to the Construction of a Peaceful World Community

The present economy has two faces: it can bring about peace, with the interdependencies that it creates, but also war, with the competition it exacerbates. The economy must contribute to creating a global community. One of the best means for doing so is to jointly elaborate regimes of governance for the four categories of goods.

#### What Would Become of an Economy That Most People Considered Illegitimate?

From civic disorder and ecological crisis to geostrategic tension and protectionist withdrawal, there is no lack of catastrophic scenarios.

### 4. Economy, Democracy and Citizenship

#### On Formal and Substantial Democracy

Substantial democracy is the means by which each person participates in the definition and management of the collective destiny and feels like a citizen, with the balance that that implies between rights and responsibilities. In a globalized context and confronted with complex challenges, formal democracy has grown away from substantial democracy at the national level: it must be revived, reinvented and provided with new tools. The role of public power and the ways in which it is exercised must be redefined.

#### The Conditions of Renewed Political Debate Concerning the Economy

The economy as defined here is no longer discussed in the political sphere. Most debates are confined to oppositions inherited from the past that hold little interest for the future. Public action concentrates on short-term regulation. It would be better to focus on the long term and examine which economy one wishes to bring about.



## Conceiving and Leading the Strategy for Change, the Great Transition towards a Durable Society

In keeping with the principles presented in the first part of this work, the strategy for change must allow the various actors to be brought together, mobilize the various levels of governance – from the local to the global – and run through the various stages of the change process: becoming aware of the problem, elaborating a shared vision, seeking allies and choosing the first steps.

### Organizing the Global Debate Over the Economy

The global scale is the weak link in the policy debate; but it is possible to launch this debate by starting with those value chains that have a concrete significance for everyone, including health, the habitat and food chains. Two actors might play a major role in organizing this debate: a redefined World Trade Organization (WTO) and the World Association of Cities, UCLG.

## 5. The Territory, Pivotal Actor of the 21<sup>st</sup>-Century

### The Territory, Cornerstone of the Economy

In the 1960s, forecasters announced the end of cities; and yet the very opposite occurred: today's economic development is focused on large urban spaces. One can truly speak of a “revenge of the territories”, called upon to become the foundation stones of governance and the economy.

### The Territory as Agent

An agent is not necessarily an institution and the “territory” must not be reduced to local authorities. One is not born an agent; one becomes it by creating a shared understanding, by basing trust on dialogue and by acquiring a vision of a common project. A prerequisite for doing so is to consider territory, not as a geographic space, but as a system of relations.

### Territorial Economics and the Mobilization of Capital

As living collective beings, territories are characterized by a virtual membrane distinguishing internal and external exchange, as well as by their ability to regulate exchanges with the outside world. Knowing a territory's “metabolism” – that is, the various kinds of flow that it generates – allows us to optimize available resources. This means that we need a new approach to issues like taxes and currency.

### Territorial Economics and the Mobilization of Resources

The economy implies recourse to four categories of capital and the territory plays an essential role for each of them. Particular mention is made of immaterial capital, of cooperation and the construction of social relations, and of natural capital. Today's economy throws a veil of ignorance over territorial metabolism; the economy must raise this veil.

### Territorial Economics and Regimes of Governance

The analysis presented in Chapter II concerning regimes of governance for the four categories of goods and services showed that territorial management was always essential, whatever the category. The territorial economy is the result of the combination of these various regimes.

## Territorial Economics, Democracy and Citizenship

A territory can become an agent at the local level and by means of a process of debate involving all concerned parties (and, in particular, those who benefit or are threatened by economic globalization). Once it has made this initial investment, it can mobilize a wide variety of means on behalf of its strategy, and its capacity will increase over time. It is also at the local level that one can go about reducing the present contradiction between our convictions as citizens and our choices as consumers.

## 6. The Institutional Arrangements of the Economy

### What Is an Institutional Arrangement?

An institutional arrangement is a stable group of relations between or cutting across institutions. These relations can be formal or informal. The art of designing institutional arrangements is about defining these relations and conceiving them in such a way that the group spontaneously goes in the direction of the objectives that one assigns it. Two types of arrangements are essential for the economy: the territory and the value chain.

### The Specifications of the Institutional Arrangements of the Economy

These arrangements consist of eight dimensions: pursuing the general objectives of governance; respecting the principles of governance; facilitating relations and taking the long term into account; strengthening awareness of being a community; making it possible for everyone to achieve coherence between what he believes and what he does; reconciling greater unity and greater diversity; guaranteeing the exercise of actors' responsibility; contributing to the intelligibility of the world; complying with the regimes of governance specific to each category of good.

### Global value chains and value chain agreements

A global value chain is a system of relations covering the whole life-cycle of a family of products, including consumption and recycling. The evolution of systems of production, the growing concern about sustainable development, the new social values about consumption and the gradual expansion of global standards and norms prepare the way for new value chains. Public authorities at different levels dispose of various means for pushing ahead for new agreements, which may give a new role to institutions like the ISO, the WTO and the UNCTAD.

### The Territory and the Territorial Economic Agency

Transforming a territory into an agent requires a specific institution in charge of the whole process. The proposed solution is to create Territorial Economic Agencies. The functions and operation of these agencies are deduced from the general specifications of the institutional arrangements and they might be modeled on English Community Interest Companies (CIC). Their objective will be, for example, to strengthen relations between local agents, oversee participative research about the "territorial metabolism", manage the transition towards a functional economy, audit existing regimes of governance in the different categories of goods, oversee the global management of human resources, use energy in an optimal manner and organize inter-generational solidarity.

## 7. Money and Finance

### Money, Finance, Energy, Three Facets of the Same Reality

The process of “financialization”, whereby the financial sector takes control over the whole economy, is the result of technical change (the IT revolution), demographics (the development of pension funds) and policy making (uncoupling of gold and the dollar). It has a considerable impact on peoples’ lives, businesses and values, as shown by the subprime crisis. In the past, money, finance and energy were thought of as three separate spheres; today, they are three facets of the same reality.

### Putting Money and Finance Into the Service of Communities and a Real Understanding of Exchange

We need to put things back into their place and start afresh from the fundamental function of money: maintaining the cohesion of the community by a short flow of exchange. Each community might dispose of its own currency and, inversely, the existence of a currency might help to construct a community. At the same time, however, the preeminence of *monetary* exchange throws a veil of ignorance over what is really exchanged, and there is a last resort creditor who is never repaid: the biosphere.

### Subordinating Money and Finance to the Objectives and Principles of Governance

Money and finance poorly serve the objectives of governance. They do not preserve harmony between humanity and the biosphere. They contribute to peace through the interdependencies that they strengthen but, in the absence of trust, these interdependencies threaten to become a source of conflict. They do not promote social cohesion and make us lose the sense of long term commitment. They do not preserve the interests of future generations.

### Which Strategies of Change Should Be Chosen and What Actors Will They Depend On?

When reviewing systematically the various social and political actors concerned by money and finance, it becomes clear that none of them is in a position to formulate a general alternative. There is, however, sufficient criticism of the present system – including criticism from within the system itself – to make new coalitions possible. These may be capable of conceiving what were in the past unimaginable global alternatives. It is the global vision that was lacking when the 2008 crisis called upon major systemic change. The proposals that are to be made are situated on two levels: a new organization of exchange and the reorientation of saving towards long-term investments.

### Multidimensional Currencies

The reality of what actually is exchanged is concealed by our one-dimensional concept of money, where the same currency serves as a unit of account and as a universal means of payment. The spreading use of electronic purses allows us to design a currency with four dimensions, measuring the quantity of labor used within a given territory, the quantity of labor supplied from the outside; the amount of fossil energy and of non-renewable natural resources. The very nature of fossil energy invites us to distribute the right to use it according to individual quotas, negotiated first at the scale of a territory then, step by step, up to the planetary scale.

### The Management of Time: The Value Reserve and the Operation of Financial Markets

How can we transform short-term individual saving into the long-term investment? What investments should be promoted in order to increase our well-being and the harmony with the biosphere? How could the return on investment be guaranteed? How can we replace money in its traditional role of “value reserve”? How should the financial system itself be designed to move us in this direction? The text ends with a series of concrete answers to these difficult questions.

## **Introduction: The Bicycle and the Centurion**

This book is a journey and an exploration, with all the meandering and tentativeness that such ventures imply. My involvement in an informal international movement, the Alliance for a Responsible, Plural, and United World, and, specifically, the World Citizens' Assembly, held in Lille in December 2001, convinced me that the twenty-first century need to undergo three major shifts: in governance, in order to manage interdependencies of an unprecedented size, scale, and nature; in ethics, in order to establish a set of value that different civilizations and different milieus could share and live by; and in economics, in order to transition from an unsustainable to a sustainable model of development. On the first two, progress has been made, notably with the definition of general principles of governance, which will hopefully trigger a genuine "governance revolution," and with the adoption, at the Lille assembly, of a Charter of Human Responsibilities outlining the basic principles of a shared ethical foundation. But how will we make the transition from an unsustainable to a sustainable model of development?

Our production and exchange system, along with the economic theory that underpins it and the powerful actors which govern it, is unquestionably the root of the problem. But with what are we to replace it? The collapse of communism has left us orphans of the imagination. Is there really no alternative to the dominant model, doctrine, and actors of the market? The marketplace of ideas is full of proposals: the "return to the local", solidarity economics, "degrowth." All, however, all leave me unsatisfied.

Our current system is founded on bicycle equilibrium: its balance depends on constant movement, i.e., on ever-increasing consumption, particularly of energy and natural resources, in a way that flagrantly contradicts the biosphere's finitude. As for proposals to fix the existing

system—witness the oxymoronic idea of “sustainable development”—they remind me of the centurion in the Asterix comic books: believing he had swallowed a magic potion, he first tries to lift a bolder, then smaller and smaller stones, until at last he manages to hold up a pebble—at which point he proclaims: “Behold my strength! Behold my strength!” With this kind of centurion riding the bicycle, we should not expect a solution any time soon.

Thus began my quest for a genuine alternative, one that is truly equal to the challenges we face. In doing so, I avoided dogma of all kind, however sympathetic and seductive they might be. I limited my inquiries to reality and knowledge of reality, even when it was only tentative.

I proceeded in two stages. These correspond to the book’s two parts. The first is an inventory and deconstruction of everything that is so often presented to us as the eternal truth. Hence the need for a long historical detour: I am convinced that we need to understand how we got to where we are. Next, I needed to form an opinion—as well-founded and objective as possible—on the limits and advantages of economic globalization. I thus proceeded to critically examine existing doctrines, before evaluating the potential of various efforts to find an alternative. I concluded that a more developed theoretical elaboration was required. However, the term “economics” is so laden with meaning, so associated with existing doctrines and practices, that it seemed futile to force it serve different ends. Consequently, I decided to use the term “oeconomy” as a way, in keeping with its etymology, to describe the ends that so many of us are seeking: ground rules for production and exchange that can simultaneously ensure human flourishing, social equity, the protection of the biosphere, and the rights of future generations. Part one thus concludes, logically, with a definition of oeconomy’s specifications.

These specifications show that oeconomy pursues no other goals than those of governance itself. Rather than governance being the handmaid of economic “laws,” oeconomy must be a branch of governance. This conclusion, trite though it may seem, has been essential to my thinking, as it made it possible to conceptualize oeconomy by applying insights that have been gleaned from the study of governance. I did this by systematically proceeding from the general to the particular and by highlighting the discrepancy between the way our economy currently functions and the basic principles of governance. I was thus led to emphasize factors that constitute and preserve relationships between human beings, society, and the biosphere; to abandon simplistic oppositions between capital and labor or commercial and non-commercial goods; to define oeconomy’s conditions of legitimacy; to redefine the relationship between oeconomy and democracy; to replace the “couple” that structures our current economy—the company and the state—with another couple, production chains and territories; to outline institutional arrangements for the former, which forms oeconomic fabric’s warp, as well as for the latter, which constitute it’s woof; and, finally, to conceptualize a new monetary and financial system.

This long journey was made between June 2005 and August 2008, mostly during summers, when I was able to take breaks from my responsibilities at the Charles Léopold Mayer foundation. But it has also been enriched by observations and thoughts accumulated over forty years. It never would have reached a conclusion without the efficient assistance of Aurore Lalucq, who helped me cut through thicket of economic literature and to find useful answers to my questions, and the affectionate tolerance of my wife Paulette who, persuaded of the merits of this quest, assumed all its burdens. I warmly thank them both.

No sooner was the manuscript complete than we were struck, in September 2008, by the second phase of the financial slump triggered by the American “subprime” crisis. We knew that this second phase would occur, and the reasons why are laid out in this book. But broadcasting a weather report just as the lightning strikes is a bit like predicting lottery numbers after they have been announced. What was I to do? I believed that my analysis and proposals were not merely circumstantial. Far from rendering them outdated, the crisis made them more relevant and necessary than ever. I thus preferred to keep the text as it was, completing it with a few footnotes here and there when recent events proved particularly illustrative. I leave the reader to decide if this choice was successful.

A final word concerning the best way to use this book: even if it presents itself as a journey, it does not read like a thriller. I thus included a summary of each chapter in the table of contents to allow readers to go immediately to the passages that they are interested in, hoping that once their curiosity is awoken, they will be tempted to read the rest.



## **Part I: Putting Things into Perspective**

## **Chapter 1: The Lessons of History**

### **1. An Outdated Model of Development**

#### ***Danger is Near***

In a famous speech made in 2002 at the Johannesburg World Conference on Sustainable Development, which marked the tenth anniversary of the 1992 Earth Summit, French president Jacques Chirac declared: “The house is on fire and we are looking elsewhere.” But is it really possible to feign ignorance of these problems? We are constantly bombarded with facts about these threats. To me it seems that it is not so much obliviousness that describes our reaction to our burning house, as a combination of fatalism and morbid fascination. When it’s over, we go back to our daily lives—though we sneak a peak, every now and then, to see what the fire has destroyed. Or, to borrow a term from Aristotle, we could be a state of “acratia”: we know what must be done, but lack the will and the energy to do it. Our problem, in short, is not that we lack information. Quite to the contrary: we are saturated by it.

### ***Accumulating problems does not make a strategy***

In 1994, the Brussels-based Union of International Associations, an organization consisting of a wide array of public and private institutions concerned with international issues, published a volume edited by Anthony Judge entitled *Encyclopedia of World Problems and Human Potential*.<sup>1</sup> The title alone suggests the scale of its project. By compiling (with a computer's help) a gigantic number of documents from respectable institutions and by selecting from them 20,000 keywords tied together by 100,000 links, the *Encyclopedia* has identified 170 world problems. By its very nature, the list feels like a grab-bag. As the editors note, each institution has its own interests, its own agenda, and its own pet ideas. While someone will deplore a lack of individual freedom, someone else will complain about the dangers of unbridled individualism. But as usually happens when such vast quantities of information are handled, a big picture appears, one that sheds light on several "packages" of problems. These lists of problems do not contain much that is new. Even so, they strike me as an accurate representation of the problems that arise when (depending on one's political ideology) one tries to identify the international community's goals or when one denounces an economic, political, and social system that is leading humanity to almost certain death. The

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<sup>1</sup> The Union of International Associations *Encyclopedia of World Problems and Human Potential*, 4th edition, 1994-1995.

nearly 170 global problems that Anthony Judge has identified can, upon consideration, be grouped together into seven sets. Let us consider each.

At the top of the list, with 20% of the problems, are the negative side-effects of development on the society: inequality, outdated social structures, unemployment, and the exploitation of the society's weakest members. Next come three sets of comparable size. The first concerns insecurity and violence, ranging from the interpersonal to the international level. The second relates to the degradation and pollution of the biosphere, the erosion of their earth's environmental heritage, and the misuse of natural resources. The third pertains to the accidents that affect individual lives: death, sickness, and social isolation. Close behind these three sets is a fifth one, consisting of collective catastrophes like famine and poverty. Then come issues of governance, which accounts for 12% of problems. It encompasses challenges ranging from the local to the global level, such as political irresponsibility, the inefficiency of public authorities, corruption, or lack of democracy.

At only a slightly lower level (10%) come problems of an ethical nature: the loss of moral guidelines amidst a rapidly changing world. In final place we find problems that are raised less frequently, such as intercultural conflict or inadequate information. Financial problems are mentioned only once.

Grouped in this way, this assortment of problems, even if it offers no indication of their underlying causes, nonetheless identifies the major questions that face the contemporary world. The big picture revealed in this way is that of a model of development that has proved unable, despite vast accumulations of wealth, to build societies that are just and equitable across the board, and which can guarantee their members minimal protection against life's risks, security, in addition to guidelines for ensuring genuine social cohesion. It suggests a world that is slowly destroying the biosphere upon which its future depends—and a world, finally, that is struggling to come up with legitimate forms of organization and governance that make leaders credible while restraining the use of force. This picture, which is basically a contemporary of the 1992 Earth Summit, amply demonstrates that sustainable development cannot be conceived solely from the perspective of preserving nature, but that it must incorporate economic, political, and social functions.

### *Searching in Vain for a Scapegoat*

Ten years later, Aurore Lalucq, who at the time was an intern at our foundation, undertook the same task, but in a climate marked by the growing influence of the anti-globalization movement. She catalogued nearly 250 “challenges”— while I was writing this book, my fourteen and fifteen year old

friends would invariably ask me how many of these challenges I had confronted in the previous half-day! This question perfectly captures the anxiety we feel when we count off, like so many rosary beads, the massive number of challenges that our world faces. Compared to the previous one, this list adopts a more activist perspective, in the sense that it presents explanations rather than simply identifying effects. It is clearly rooted in the idea that the economic globalization of recent decades is, if not the sole cause, at the very least an entirely new factor. In Aurore Lalucq's list, three sets of problems appear. The first concerns the "financialization" of the world, which is largely disconnected from society's primary activities, yet which nonetheless impacts them in innumerable ways. The second relates to the destabilizing effects of globalization on governance; to the declining autonomy of the state, which can no longer play its traditional regulatory role; to multinational firms that escape all forms of control; to the destabilizing effects of globalization on the relationships between countries with different degrees of development, when global governance can no longer provide a counterweight to relationships based on force; to the dismantling of certain social models, notably the industrial societies built after the Second World War, founded on a balance between capital and labor (which economists call the "Fordist compromise"); and to the trend towards generalized commercialization, from which not even knowledge, art, and culture are spared.

The third set, which is now very well known, concerns the ways in which our development model has degraded the biosphere, biodiversity, water, soil, forests, air, etc. This list could go on forever. With the help of Françoise Feugas' and the Ritimo association, we drew up a list of the keywords used by the thousands of workshops that participated in the World Social Forum in Mumbai in January 2003. Consequently, it is not so much a list of problems as of principles and goals embraced by contemporary grassroots movements. The same themes are present, but stated in a political tone (emphasizing, for instance, that world governance is dominated by the interests of northern countries and multinational firms, as evidenced by structural adjustment policies, WTO negotiations, etc.), or as outright demands (such as for greater gender equality), or as a plea for alternatives (i.e., social economy).

Precisely because they have been generated by a range of different projects and outlooks, these lists provide us with a revealing sampling of human concerns (in wealthy countries, at least) about the state of the world. Nevertheless, they have two limitations, which are compatible though they might at first appear contradictory. First, they formulate problems in sectoriel terms. *The Encyclopedia of World Problems and Human Potential* makes this point very effectively in its comments about the list: each institution, because of its mission, its social and political basis, or its preferences, has its favorite problems. To these it devotes all

its energy, working on the implicit assumption that as long as everybody takes care of the problems that concern them directly, everything will be taken care of and the world will be a better place. This kind of thinking explains why over the years world governance has steered off course. Lacking both a comprehensive approach to global regulations and the will, on the part of states, to build a supranational world order, the international community has created hundreds of specialized authorities, each responsible for a specific goal. Regrettably, however, this is not the best way to create transparent, efficient, and legitimate global regulations. In civil society, particularly non-governmental organizations (NGOs), things are not much different. The demand for simplicity (which activists insist upon) and their (at least apparent) financial independence encourage NGOs to have their own little niche, their own priorities, their own field of expertise, and their own political and social network. The tools that are useful for describing the world's problems are not always helpful in formulating a vision and a strategy for change.

I recall an observation of Philippe DeWoot, a management professor at Louvain University in Belgium: "When a company lists its top twenty problems, it has not done much at all; but when it lists its top five problems, it has essentially adopted a strategy." I would transpose this saying onto society as a whole.

In direct contrast to this extreme dispersion of goals and policies, one finds totalizing explanations that bring everything back to a single cause or (one might



say) to a final solution. For a while, my generation, which reached adulthood in 1968, relished explanations that were so totalizing and smug that they became self-referential. They loved to explain, with ersatz erudition, using jargon that mixed together philosophy, economics, sociology, and politics, that everything was a product of capitalism. The economist Michel Beaud (who is hardly a free-market zealot) mused during the eighties that until Chernobyl, he would have no difficulty demonstrating that a nuclear catastrophe could only have occurred in a capitalist country, where the population's health was sacrificed on the altar of short-term gain. The fall of the Berlin Wall, a more lucid analysis of Stalin's crimes (longtime avoided because of the wartime alliance between the Soviet Union and the western powers), and the disastrous results of the Chinese Cultural Revolution silenced, for a while at least, the proponents of such one-size-fits-all explanations. But not for long. Another single cause had been found: economic globalization.

I do not mean to underestimate globalization's importance and relative novelty, even if Philippe Noirel's book, *The Invention of the Market: An Economic History of Globalization*,<sup>2</sup> serves as a timely reminder that global trade has been around for a long time (the degree of openness to foreign trade in 1990 was not greater than it had been a century earlier, which the protectionist phase of the interwar period tends to make us overlook) and that complex relationships between

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states and markets have been in the making for a while. Nor do I intend to downplay (I will later return to this point) the historical significance of the consolidation and deregulation of financial markets, which is commonly referred to as the “financialization” of the world. But there is still a far cry from presenting globalization and financialization as the root of all our evils. This is all the more true in that, just as a list of problems is not a strategy, insisting on a single cause implies a strategy that is overly simplistic: get rid of the root cause, and all will be for the best in the best of all possible worlds. Once upon a time, some believed that political revolutions would lead to communism. These days, there are some who would like to roll back globalization and financialization. But for what purpose? I admire ATTAC’s mobilizing abilities, the hope that its rapid development at an international level has inspired, and many of its leaders. However, even from its beginnings, I could not help but conclude that it was wrong to build its activism on a lie—on the idea that financialization and fluctuating exchange rates were the source of all evil, and, consequently, that we could solve these problems by taxing monetary flows. It took ATTAC’s leaders several years to recognize this, and to shift their emphasis from taxing capital flows tied to speculative profits (on which, in my view, the Tobin tax would have had virtually no effect) to the far more just idea of an international tax that would fund economic development. Even so, I have met generous activists outside of France who, because of the seriousness of

ATTAC's founders, are convinced they are following leaders who have straightforward, just, and effective solutions to offer the world.

Thus lists of problems and challenges, as well as all-encompassing solutions, leave unaddressed the question of vision and strategy. Where do we want to go? And how will we get there?

## 2. Interdependency and Globalization

A new vision, which takes time to create, requires a discerning eye. What is truly irreversible? And what is not? What are laws of nature, and what are human constructions—which, presumably, could be changed by new human constructions?

An important example of what is and is not irreversible can be found in the distinction that must be drawn between interdependence and economic globalization.<sup>3</sup>

### *Interdependence Is Irreversible*

As I see it, interdependence refers to the mutually supporting relationships between particular societies as well as between humanity as a whole and the biosphere. Unless the planet's population is brutally reduced by a massive catastrophe, humanity in its entirety interacts henceforth with the biosphere. If only in an ecological (as opposed to a social or political) sense, the planet has in fact become a village. Solidarity now has, if not a moral, at least a physical meaning: that of a whole in which each part is dependent on the other. This is why, in *La Démocratie en Miettes*, I emphasized, while discussing governance, that the world has irrevocably become our domestic space. Continents, countries, and territories are

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<sup>3</sup> Translator's note: The French text uses two different words—*mondialisation* and *globalisation*—for which English offers only one translation: globalization. I have translated “*mondialisation*” by “interdependence” and “*globalisation*” by “globalization.”

merely subdivisions of this domestic space. Similarly, I believe that the development of technology, especially information and communication technologies, are also irreversible: whatever political obstacles are thrown up to their ability to circulate, information and images can be sent essentially instantaneously from one end of the planet to another, carrying with them ideas as much as numbers.

### ***Economic Globalization: A Child of Circumstance***

On the other hand, economic globalization is founded on the premise that the world can only progress, to the benefit of all, if every obstacle to the free circulation of goods and services is abolished, and if as everything—intangible goods, life sciences, genes, culture, and art—is turned into a commodity. This kind of economic globalization is most definitely not irreversible.

On the contrary, it can be situated very precisely in history, and the forces driving it are well known. The idea that preventing the free circulation of goods and services should be forbidden, but that blocking the free circulations of people (to prevent rich societies from being invaded by the wretched of the earth) is permissible, is neither self-evident nor irreversible.

There is nothing new about international trade. It has easily been around for some five thousand years. It has been practiced by every organized society, most

notably by empires. Since the eighteenth century, history has alternated between periods of protectionism and periods of free trade. Societies tend to adopt, without much fuss, the principles that suit their contemporary needs. In Europe, multinational companies were founded in the age of discovery. They were often intimately bound up with the interests of states. Overlapping between public policy and private companies has always been intense, as the case of the eighteenth-century East India Company illustrates. Similarly, Japan's reconstruction and Korea's development in the postwar era depended on a strong partnership between the state and the private sector. Europe and the United States each try to support their continental "champions."

The same observation can be applied to the movement of capital. Though in the nineteenth century it existed in different forms, relations between different financial markets are hardly new. The stages through which the contemporary system, which is typically considered historically unique, was born are quite well known. There are four main ones: the United States' emergence after the First World War as superpower with an interest in liberalizing markets; European protectionism and its contribution, during the interwar period and particularly after 1929, to the growth of nationalism and the outbreak of the Second World War (which, in the postwar era, led trade to often quite plausibly be associated with peace); the fall of the Berlin Wall and the implosion of the Communist bloc,

leaving liberalism with no serious rival, while simultaneously offering an after-the-fact justification of the Reagan-Thatcher conservative revolution against postwar social democracy and Keynesianism; in the wake of this first stage of liberalization, and once again at the United States' initiative, there followed a new wave of liberalization, involving services as well as intangible capital, which was vital to the American economy as its production of manufactured goods continued to recede from its postwar high—clear proof of the economic system's capacity to redistribute technology and capital when needed.

One example to which I am particularly drawn illustrates the human, incidental character of trends that so often are taken as self-evident: the single European market. We are often told that Europe was founded on economic liberalism and that it sacrificed other aspects of European construction on the altar of economics—to the point that one might think Europe was built solely at the behest of major corporate interests. To do so is to conveniently overlook history. Consider the stirring letter that Jean Monnet wrote Charles de Gaulle when he was in Algiers in 1943, in the middle of the war. His reasoning is straightforward: the Allies will win the war because the United States has become, as the expression went, “the arsenal of democracy.” Consequently, Monnet argues, the only question that still needs to be asked is how to win the peace after winning the war. This was actually a burning question, considering that following the Versailles Treaty from

1919 the allies lost the ensuing peace. Monnet considers in turn several possible scenarios relating to the future of a defeated Germany. He concludes that only one is feasible: European construction. It never had any other purpose than peace. And from this perspective, whatever other reservations one may have, Europe has been a total success. The creation, shortly after the war, of the European Coal and Steel Community rested on the same political vision. The goal was not to create a vast European market, but to take advantage of a momentary decline in sovereignty and nationalism to place two commodities needed to wage war under collective management. It was an ingenious master stroke. If one recalls that in every society, from ancient Greece to imperial China, the primary goal of politics has been to preserve peace, it becomes clear that the purpose of European construction is primarily, or even exclusively, political.

When the United States, as the Cold War was brewing, began to push for European integration, even making European cooperation an eligibility requirement for receiving Marshall Plan funds, its intent was neither to create a competitor nor to facilitate the exportation of American goods to Europe. Rather, the goal was to present a united front to what it viewed as the “Soviet threat.” European integration was initially supposed to be driven not by lower tariffs but by the European Defense Community (EDC). In a Cold War context, and at a time when avoiding a new fratricidal war was a major priority, such an idea was



perfectly natural. But because of the importance of Western European communist movements at that time, and the hard-won prestige that the Soviet Union acquired in its struggle against Nazi Germany, as well as because of the Gaullist opposition (though for different reasons), the European Defense Community, which was so clearly directed against the Soviet Union, failed in France. Europe's advocates were driven to despair. It was only then that the great Belgian statesman Paul-Henri Spaak argued that since Europe's political construction had hit a snag, it should pursue a different course: economic unification.

Economic globalization is thus the result of a number of specific historical circumstances, each corresponding to a particular interest. This kind of globalization is, moreover, serenely and cynically created by the most powerful actors: this is evident in the fact that energy trade has, until now, been placed outside of the WTO and in the way that European and American farmers have been vigorously subsidized on the basis of the principle of sovereignty, which other, less powerful actors were forbidden from doing.

This historic move towards globalization has depended heavily on the evolution of technological systems. Debates concerning intellectual property would not be so bitter if intellectual goods had not become, as a result of technological changes, of greater strategic value than material production factors. Financial globalization would not be what it is without computer technology.

Similarly, financial markets and the importance of institutional investors in these markets would not be as powerful as they are without demographic stagnation in the Western countries (which turns the question of retirement into an obsession) and without the demand for Asian capital. They also benefit from the concentration of oil resources in a few countries, which are constantly seeking new investments for their petrodollars.

Nevertheless, these powerful technological and social processes are neither natural forces nor irreversible developments. Moreover, it strikes me as both possible and probable that in upcoming decades trade will be organized into continental blocs rather than in an undifferentiated global space, and that the reckless economic liberalization of recent decades will give way, as at the beginning of the twentieth century, to an era of relative protectionism.

### **3. A Consideration of History's Long-Term Trends**

If we want to develop a vision of the changes that must occur, an understanding of recent trends will not suffice. We must go back very far in time, because our ideas, our concepts, our doctrines, and our institutions were built on foundations that are much, much older. It is these foundations themselves that we must examine. If, as I believe, we must completely rethink our modes of production, consumption, and exchange, we need to reshuffle the deck. We must deconstruct in order to

reconstruct. We must stop viewing history as a royal road leading from the past to the future by way of the present, and consider it rather as a sinuous path, full of thresholds, circles, and zigzags where, at specific moments, the road bifurcated. It is like a hike in the mountains or the forest. When one arrives at a dead-end, one must be wise enough to return to previous forks in the road, in order to explore a different route.

Without being trite, I believe that humanity, participating in the amazing adventure of life on earth as a full-fledged participant in the biosphere's evolution, has gone through several stages, each corresponding to an increasing degree of complexity. This increasing complexity determined the relationship between human beings and nature. First there was the Neolithic revolution: the shift from hunting and gathering to farming. Next was humanity's determined bid to increase its dominion over nature: the industrial revolution. We have now reached a new—and most dangerous—stage: that in which the manipulation of life itself becomes possible.

The increasing complexity of relations between humanity and the biosphere is mirrored in the increasingly complexity of social organization, from dispersed and autarkic bands of hunter-gatherers to cities, empires, states, and, finally, the international community of our own day.

Each of these stages produced its own ideas, doctrines, and institutions. Each has its own life cycle and evolutionary rhythm. To forget the conditions in which they were born is to sacralize them, and to give up on the idea that we can take control of our destiny through our capacity to think. We risk, in short, confusing means with ends. It is for this reason, by a strange historical ruse, that science and technology on the one hand, the market and the economy on the other—eminently human creations, which were created to allow humanity to be the master of its own destiny—have slowly slipped from our hands, like the sorcerer's apprentice's broom. They have taken on a life of their own, developing according to their own rationality. We feel powerless to interfere with their development. This is an optical illusion, but a dangerous one, which limits our capacity to react.

The timeframe that interests us, as we attempt to understand the advent of our current doctrines and institutions, is not a decade or even a century, but rather a millennium. We are concerned not with political history, but with the history of philosophy, doctrines, concepts, and technological systems. Two bifurcations occurred during the western Middle Ages; they played determining a role in world history that we need to understand. The first concerns our relationship with nature, and the second the relationship between society and the accumulation of material goods.

The first major bifurcation during the Middle Ages occurred when we ceased seeking simply to master nature, and came rather to scorn it. The multi-millennial history of the relationship between man and nature across different civilizations has been magisterially told by the African historian Joseph Ki-Zerbo, who, with Marie-Josèphe Beaud-Gambier, edited the volume entitled *Compagnons du Soleil*<sup>4</sup> (“Companions of the Sun”), an anthology of the most important texts in the history of this relationship.

It shows that in all civilizations, visions of humanity’s relationship to nature have always been two-sided. On the one hand, humans are as much a part of the nature as other living beings, and are governed by its laws and harmonies. On the other hand, humans use nature for their own purposes, and distinguish themselves from other animals precisely through their ability to place natural forces, be they plants or animals, under their control.

The distinguishing characteristic of western society, from the thirteenth century on, was not so much its conception of itself as distinct from nature; rather, it was the fact that this conception became the sole basis of its relationship to the natural world. This conception has been called “Roger Bacon’s and René Descartes’ project.” As it has been frequently exposed, I will limit myself to mentioning Dominique Bourg’s remarkable book, *Le nouvel âge de l’écologie*

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<sup>4</sup> Joseph Ki-Zerbo, Marie-Josèphe Beaud-Gambier, *Compagnons du soleil*, La Découverte/Unesco, 1992.

(“Ecology’s New Age”), particularly the chapter entitled “De la nature maîtrisée à la nature méprisée” (“From the Mastery of Nature to the Scorn of Nature.”)<sup>5</sup> The story begins in the twelfth century, with Europe’s growing passion for methodical development and technology. It continues into the thirteenth century, with Roger Bacon’s affirmation of the “possibility of inventing an infinity of new machines and with the modern dream of technical mastery of nature based on knowledge of the laws governing it.” It reaches its apogee at the beginning of the seventeenth century with Francis Bacon’s idea of a New Atlantis—his astonishingly modern vision of the wonders that mastering the laws of nature can offer humankind, and the “belief that the near-omnipotence of science and technology would bring universal happiness.” Descartes’ *Principles of Philosophy* brought the philosophical subjection of nature to humanity to completion with by affirming that there is “no difference between machines made by artisans and the various bodies that nature alone creates”, and by concluding that humans aspire to universal mastery. “We are destined,” he famously said in the *Discourses on Method*, “to become the masters and protectors of nature.” This vision, which is at once immoderately pretentious for humanity and hopelessly reductive in its understanding of the biosphere, has served as a background to the rise of scientific knowledge and technological advancement, with mechanics and chemistry

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<sup>5</sup> Dominique Bourg, *Le nouvel âge de l’écologie*, Éd. Charles Léopold Mayer/Éd. Descartes & Cie, 2003.

becoming the very symbols of human mastery. Even today we can see the consequences, for instance in the domain of agriculture, which still finds it difficult to reconcile human activity and the biosphere.

The second major bifurcation concerns the role given to the accumulation of wealth in the organization of our society.

To understand the market economy, one must look back more or less to the same period and intellectual climate—that of the Middle Ages—that we discussed previously. Jacques le Goff, in his remarkable work *Héros du Moyen Âge, le Saint et le Roi*<sup>6</sup> (“Heroes of the Middle Ages: the Saint and the King”) shows how a new interest in earthly life emerged in the thirteenth century Christendom. The life was no longer seen simply as a purgatory where one awaited “true life” in the beyond. The economic and technological revolution of the twelfth century contributed to the development of a monetary economy. Now that it was newly appreciated, this earthly society needed to be administered.

Albert O. Hirschman has skillfully shown, in *The Passions and the Interests*,<sup>7</sup> how moralists of the Middle Ages and the Renaissance came up with arguments justifying and eventually glorifying the accumulation of material wealth. These arguments, which Hirschman calls pragmatic or realistic, are simple. Human passions are a threat to the social order. Following St. Augustine, these

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<sup>6</sup> Jacques Le Goff, *Héros du Moyen Âge, le Saint et le Roi*, Gallimard, 2004.

<sup>7</sup> Albert Hirschman, *The Passions and the Interests*, Princeton University Press, 1997.

moralists identified three passions that were potentially destructive to society: the passion for power and domination; the passion of carnal desire; and the passion to possess. The pragmatic moralists believed that society could not be founded on the simultaneous repression of all three passions. What is possible in the city of god is not necessarily so in the city of man. Under these circumstances, the least destructive passion should be allowed to flourish—namely, the passion of possession. Thus it was a moral program that gradually paved the way to our society's obsession with "having the most." The emancipation of the possessive passion would later be theorized by the Protestant Reformation. Success in business would be seen as a reward for virtue. The link between virtue and accumulation is constitutive of what François Ost, in his magnificent book *Raconter la loi*,<sup>8</sup> calls the "puritan dilemma": "A dilemma that the pastor John Wesley, the founder of Methodism (which advocates a return to Calvinism's roots) expressed with perfect clarity: 'Wherever riches have increased, the essence of religion has decreased in the same proportion. (...) For religion must necessarily produce both industry and frugality, and these cannot but produce riches. But as riches increase, so will pride, anger, and love of the world in all its branches.'"

At the historical stage at which we have arrived, where, as a result of our interdependence, humanity is no longer a philosophical nor even a juridical

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<sup>8</sup> François Ost, *Raconter la loi, aux sources de l'imaginaire juridique*, Odile Jacob, 2004.



concept but a concrete social reality, we must return to the medieval bifurcation, and ask ourselves whether the possessive passion is not the most destructive of the three. We must return to the genuinely anthropological question of how to master the passions and violence within us. This is the question that Patrick Viveret address, in a different context, in his *Démocratie, passions et frontières*<sup>9</sup> (“Democracy: Passions and Frontiers”) and that he recently revisited in *Reconsidérer la richesse*<sup>10</sup> (“Reconsidering Wealth”). He writes: “Violence between humans is the source of every invention that has sought to create pacified spaces, even when humans do not get along (...). The effects of globalization, in addition to those of computer technology and the biological revolution, mean that we must radically reexamine the status of these pacifying schemes. For pacification produced by religion, the economy, and politics remains an internal pacification that is made possible by redirecting aggression externally: the infidel or the heretic (for religion); the foreigner or the barbarian (for politics); and the competitor, i.e., the adversary who must be eliminated or beaten (for economic relations). But from the moment that humanity is considered as whole, we must admit the obvious: this cheaply-purchased pacification, this approach to achieving internal peace by redirecting the violence towards external ‘barbarians,’ can work no longer. Humanity is in reality threatened by nothing other than itself. Its

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<sup>9</sup> Patrick Viveret, *Démocratie, passions et frontières*, Éd. Charles Léopold Mayer, 1999.

<sup>10</sup> Patrick Viveret, *Reconsidérer la richesse*, Éd. de l’Aube, 2008.

primary question is that of its own inner barbarianism, its degraded relationship to its natural environment being to a large degree the consequence of its own foolishness.”

Insights like these beg a question that we will soon address: at the stage of accumulation, interdependence, and relations with the biosphere that we have attained, we can no longer separate our understanding of economics from governance, and, more generally, from our conception of society as a whole. In light of the transformations that have occurred in recent decades, the economy, strictly speaking, no longer exists. What remains is political economy.

This approach—revisiting history, reconsidering truths that we consider to be self-evident—will guide my thinking in the forthcoming pages and will be applied to all of the economy’s dimensions. There are quite a lot of us who believe that the “means” must be brought back into sync with the “ends.” For instance, the Belgian economist Bernard Lietaer,<sup>11</sup> an advocate of regional currencies, observes: “Money is our creation, but now, throughout the world, it is leading us (...). The time has come to decide in which direction we want to go; if we want more sustainability and community, the monetary system must without fail be changed accordingly.” The Brazilian economist and promoter of auxiliary currencies

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<sup>11</sup> See Bernard Lietaer’s contributions to the workgroup on “currency” for the Alliance for a Responsible, Plural, and United World. ([www.alliance21.org](http://www.alliance21.org)).

Heloisa Primavera<sup>12</sup> adds: “If the path seems full of obstacles, it is because the current paradigm prevents us from glimpsing alternatives.” This impossibility of imagining alternatives and of deconstructing apparently self-evident truths is the very reason that our current crisis perpetuates itself.

I recall an incident that occurred while I worked at the Ministry of Equipment, when I was an engineer for the Valenciennes district in northern France. I was responsible for navigable waterways, and, confronted with the daunting industrial crisis that the region was facing, I was seeking new incentives to spur economic development. I remember submitting an idea (of which I do not recall the specifics) to the Valenciennes chamber of commerce and industry. It replied as follows: “If it were feasible and profitable, then someone else would have already done it.” The belief that either things must be as they are because they always have been (one thinks of the nineteenth-century French belief in the “immutable order of the rural world,” which, needless to say, no longer exists), or that everything that is possible has already been tried is perhaps the greatest challenge to the emergence of genuine alternatives.

In our book *L’Etat au Coeur*,<sup>13</sup> André Talmant and I explain the importance, in public administration, of recalling the inevitably specific and incidental conditions in which rules are being made. Only by contextualizing them are we

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<sup>12</sup> See Heloisa Primavera’s contributions to the workgroup on “currency” for the Alliance for a Responsible, Plural, and United World. ([www.alliance21.org](http://www.alliance21.org)).

<sup>13</sup> André Talmant and Pierre Calame, *L’État au cœur*, Desclée de Brouwer, 1997.

reminded of their relativity. When we forget how a rule was born, it becomes absolute. Breaking rules is no longer seen as just part of life, but becomes instead the violation of a taboo. Heidegger said: “The most difficult thing in life is to see one’s glasses, as it is through these glasses that we see the world.” Contemporary scientific and economic ideas are part of these glasses, which we must learn how to see.

Why has our understanding of the economy’s basis changed so little over the past two centuries? In this period, the sciences have undergone several revolutions. But economics has not. The reason, as I see it (and I will elaborate on this later) is that the economy is less a science than an ideology, a doctrine, and an institution. Like the state, it has given rise not only to academic disciplines, which by their nature are resistant to change, but also to institutions, to companies, and to banks, which have vested interests in the current state of affairs and which, by their very nature, rigidify these doctrines, working them into the foundations of constructions that are built to last. This ossification of what I propose to call “institutional arrangements” captures rather well the reasons that thinking evolves so slowly when it concerns society itself. Our current conception of the economy must probably be placed on the shelf of “ideology” rather than that of “science” in our historical library, as the subordination in of empirical studies to formal (and even formalist) approaches in recent decades testifies. Therefore, a reexamination of the

doctrinal foundations is most often what is missing. Institutional arrangements, like doctrines, are resistant—well beyond the time period in which they made sense. This explains the lag between facts, concepts, and institutions.

In contemporary China, for instance, which now finds itself on the cutting edge of what used to be called “modernity,” “technological totalitarianism has replaced political totalitarianism,” in the words of a Chinese historian who participated in a forum on governance held in April 2004. It is the offspring of the marriage between traditional imperial power, retooled by the communist regime, and the enlightenment tradition that prefers science and technology to laws. My friend Chen Yue Guang, the secretary general of the Foundation for the Progress of the Chinese Youth, told me in 2004 about his conversations with an octogenarian onetime vice-prime minister, who told him that he was constantly haunted by three questions:

- What does it mean to be human?
- What should the role of intellectuals be at present?
- What system should China adopt?

If one replaces “China” by “the world,” then these obsessions become also my own. What does it mean to be human when humanity has yet to emerge, and when we need to invent new processes—other than those founded on external violence and the use of the passion for accumulation—to quench our passions, as well as

our own violent impulses? What does it mean to be human, if it is not the right to refuse that such eminently human endeavors as science and the market become a new form of fate? What does it mean to be human, if not the possibility of working together to confront these challenges?

What should be the role of intellectuals, if not to mobilize everything we have learned from life, thought, books, and the daunting reservoir of knowledge and experience that humanity harbors with itself in order to leave the beaten path, yet without renouncing the ascetic rigor needed to interpret the inherent ambivalence of objective reality, which is often contradictory and which precludes deceptive simplifications?

What system should the world adopt, if not a reformulation of our outlook based on the dead end that we have currently reached? This building of a new vision, must speak both to the mind and to the soul. This is part of what makes it difficult. Symbols are as important as facts, as it is the former that give the latter meaning. Jacques Le Goff, for instance, describes the role played in the thirteenth century by *exempla*, which were popularized by priests. *Exempla* were little stories, most of which were probably fictitious, which attributed words to contemporary heroes (like Saint Louis) and built them into scenes. They would make it possible to convey a vision of the world and a message. In France, during the Third Republic (1870-1940), and to a lesser extent during the Fourth Republic

(1946-1958) of my childhood, edifying stories of this kind continued to play a role in the construction of national identity. In upcoming decades, we will without question have to define new *exempla* related to the building of a world community and to duties that stem from the interdependence between humans and nature.

To reconstruct over time a system that is compatible with the current state of the world requires a simultaneous deconstruction and reconstruction of the various components of our present system. I will briefly consider four examples, which I will later consider in greater depth.

The first example is the company. How this concept has evolved over the past fifty years is plain to see. We have gradually shifted from large, integrated systems, in which companies extracted added value by integrating their input with their output, to a network-like system, in which, on the one hand, companies depend on consultants, maintenance work, information technology, research laboratories, headhunters, and placement agencies (which facilitate lay-offs), while, on the other, most of their material production is farmed out to a host of subcontractors. Some even speak of “shell companies,” that are in fact little more than organizational networks. Do companies even exist any more, in the traditional sense of the word, or are there only networks of production-related units? Is the company still an entity, a social body with a clearly-defined identity, or is this identity simply a reputation, a brand name, and a commercial and financial

structure? Should work-related solidarity be organized around the company or professional affiliations?

The second example is currency. Traditionally, currencies have fulfilled three functions: they are means of payment, counting units, and reserve of value. The transformation of technological systems has led to a separation of these functions, with each called upon to operate according to its own particular modalities, at the very moment when the boundaries between currency, a traditional prerogative of the state, and finance, which has characteristically been in the purview of the private sector, have disappeared.

A third example can be found in goods and services. We have the habit of distinguishing between public services, which fall under the state's tutelage, and goods or services directed towards persons and personal needs, which have traditionally been offered by the sector private. But today we need a different typology: "categories of goods and services." We can distinguish between four such categories: goods and services which are destroyed when divided; those that are divisible when shared yet which owe little to human creativity; those that are divisible when shared but which are essentially the fruit of human creativity; and finally those that multiply when shared. Each of these categories belongs, as I see it, to a very different production and distribution rationality.



My last example is capital. If, as I believe, we are headed, in order to reduce the flow of material goods, to what some have called a “functional economy”—that is, to an institutional arrangement that is very different from our present one—the distinction between public capital, linked to infrastructure, and private capital, linked to production, corresponds less and less to the real world.

Take nothing as given. Pay attention to everything that moves, emerges, and is invented. These are our rallying cries.

#### **4. Each Era Has Its Pivotal Actors**

At every stage of its history, a society can be described as a bio-socio-technological system, or as the more or less harmonious (or more or less dissonant) combination of three subsystems. The first, the bio-ecological system, refers to relationships between society and the rest of the biosphere, the size and nature of what is withdrawn from the biosphere, the size and nature of waste—in short, to the ways in which human activities are integrated into ecosystems. The long-term survival of a civilization is contingent on the quality of this integration.

Secondly, the socio-economic system refers to social organization: culture, values, worldviews, institutions, social and political structures, collective actors, and what I have called “institutional arrangements”—modes of life, production, consumption, and exchange. In a socio-economic system, governance refers to the

totality of regulations that a society institutes to maintain peace and social cohesion, to channel human passions, to organize collective life, and to grow.

The technological system, which is the third subsystem, refers to the totality of technology that a society implements. I have chosen both to define and to distinguish this subsystem. I define it as a system, following Bertrand Gille,<sup>14</sup> Thierry Gaudin, and many others, as a reminder that different technologies are not independent from each other, but that they form a system through the various ways in which they are combined. I distinguish it from the socio-economic system to emphasize its importance and its relative autonomy, for it has, I believe, its own dynamic.

The interrelations between these three subsystems take many forms. In particular, the economic system influences the technological system and is in turn influenced by it, at the same time that the technological system is influenced by the bio-ecological system while being reciprocally affected by it.

Based on this historical overview, my thesis is that at each historical stage, society, in keeping with its degree of technological development, has a particular set of institutional arrangements, which give rise to a “pivotal actor.” This actor is not necessarily the most powerful or the most visible player. But it is around this actor that the system is organized.

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<sup>14</sup> Bertrand Gille, *Histoire des techniques*, “La Pléiade,” Gallimard, 1975.

Why this interest in institutional arrangements and pivotal actors? It is because I do not see the economy as a series of abstract rules that apply to interchangeable and anonymous “economic agents”—producers, consumers, savers—but as a totality of procedures and rules that coalesce into particular institutional arrangements and into types of relationships within these arrangements. It follows that an understanding of the historical evolution of these arrangements is essential.

In studies of technological systems, each period is characterized by four elements: time (the minimum and maximum units of time that one can reasonably control); distance (the degree of detail with which one can understand and act on matter) energy (energy sources); and information (one’s capacity to transmit and process information). We live in a period in which time is set to the frequency of atomic vibrations; distances extend from the subatomic of nanotechnologies to interstellar space; energy can draw on nuclear fusion; and in which the information revolution allows for the transmission and processing in real time of gigantic quantities of information.

I do not believe that each stage corresponds to a single kind of institutional arrangement. Each society and each civilization has its own itinerary. To give an example: Robert Boyer, in *Politics in the Age of Globalization and Finance* (Le

*politique à l'ère de la mondialisation et de la finance*),<sup>15</sup> when discussing industrial countries during the period of mass growth referred to as the “Fordist Compromise,” during which the central question was the distribution of the fruits of this growth between labor and capital, distinguishes between four major institutional arrangements, which he refers to as regulatory modes.

The first, commercial regulation, is characteristic of the United States. Commercial rationality is the organizing principle of most institutions.

The second, corporatist regulation, is characteristic of Japanese capitalism. It is dominated by large companies that organize, within their own domains, capital movements, the distribution of responsibilities, and salaries.

The third, public regulation, is characteristic of France. The economic circuit relies heavily on public intervention.

The fourth, finally, is social-democratic regulation, which is characteristic of the Scandinavian countries, and, to a lesser degree, Germany. The system is founded on negotiation between “social partners” (employers and trade unions) of rules that regulate a large sector of the society and the economy.

These distinctions are essential if we are to avoid succumbing to a kind of ahistorical and culturally insensitive determinism of technological, economic, ecological, social, and political systems. Yet the fact remains that during the

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<sup>15</sup> Robert Boyer, *La politique à l'ère de la mondialisation et de la finance : le point sur quelques recherches régulationnistes*, Cepremap-Germe, paper no. 9820, 1998.

twentieth century, in all four of these regulatory systems, the pivotal actor was the company. It is around the company, whether public or private, that institutional arrangements were structured. It was responsible for organizing, within the context of the technical system of the age, the simultaneous mobilization of various material factors of production (typically mechanical and chemical) and of the massive quantities of manpower that were necessary in order to produce economies of scale. This system also required market integration in order to guarantee sufficient outlets, which in turn necessitated the state's regulatory role and the social and political compromises needed to ensure that so great a concentration of manpower not result in social revolution.

Over the course of the past fifty years, the transnational corporations (TNC) fully deserves to be called the pivotal actors since, even though they represent only a tiny fraction of total economic activity, their ability to shape the behavior of other actors is considerable—which explains why, for better or for worse, everyone pays attention to them.

Based on this belief, I will very generally follow the data compiled by Martin Wolf, economic globalization's high priest and the *Financial Times*' chief economic editor, in addition to being the author of an “anti-anti-globalization” tract entitled *Why Globalization Works*.<sup>16</sup>

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<sup>16</sup> Martin Wolf, *Why Globalization Works* (Yale University Press, 2004).

Companies that are designed primarily to do business beyond a single nation's territory are not new. The East India Company, in the eighteenth century, had private armies at its disposal, administered entire territories, and enjoyed privileges and monopolistic rights that today's transnational corporations could only dream of. With the possible (and probably temporary) exception of Microsoft, no transnational corporation has a monopolistic position comparable to those held, several decades ago, by large companies within their own national economic space. Even if collusion between a small number of global companies which dominate a market is possible, they are still in competition with one another.

Take the fifteen companies with the greatest added value in 2000, according to the calculations of the United Nations Conference on Environment and Development (UNCED): Exxon Mobil, General Motors, Ford, Daimler Chrysler, General Electric, Toyota, Royal Dutch Shell, Siemens, WalMart, Volkswagen, Hitachi, TotalFinaElf, and Verizon Communication (which deals in cell phones). In the domains of oil, construction, automobiles, retail, electronics, and telecommunication, none completely dominates the market. But are they not at least dominant enough to ensure lasting supremacy, to grow at a faster rate than their competitors, or to count on extravagant profits? Again, the numbers appear to suggest otherwise. I remember the position of IBM forty years ago. It was, in our eyes, the very example of a future world monopoly, which had raised a barrier at

the market's entry such that the failure of any future competitor would seem a foregone conclusion. We know what happened instead. IBM did not anticipate the increasing importance of operating systems and the income they guaranteed, nor did it put stock in the rising importance of the personal computer. IBM fell from its pedestal. Each year the magazine *Fortune* ranks the top ten, twenty and fifty companies. Over the last six years, three of the top ten and twenty-nine of the top fifty lost (one might say) their Michelin Guide "stars" (see M. Wolf, p. 226).

Did these major companies at least manage to consolidate their position in the world since the 1980s, and particularly during the 1990s, when economic liberalism reigned unchallenged and a wave of market openings occurred? Not really. According to *Forbes* (M. Wolf, p. 225), the share of the fifty largest companies in the OECD, whether measured either in terms of employees, salary mass, or profits, has declined slightly since 1994.

Do these fifty companies at least represent a significant portion of world employment? 0.2% of world salaried employment and 1.6% of salaried employment in the OECD: it is quite unlikely the transnational corporation will become Big Brother any time soon.

Does this mean transnational corporations are simply a myth, a scarecrow invented by the anti-globalization movement to scare little children? Of course not. The first reason concerns the size of these companies. Sarah Anderson and John

Cavanagh of the Institute for Policy Studies in Washington published in December 2000 a figure that was quoted throughout the world: “Fifty-one of the worlds’ largest economies are companies, and only forty-nine of them are states.” In these calculations, a company’s size was determined by its sales figures. Martin Wolf criticizes this approach, arguing that value added is a more fair measurement and more comparable to gross national product, the criteria used to measure national economies. Let us accept his reasoning. He concludes, on the basis of calculations made by two Belgian economists, Paul De Grauwe and Filip Camerman,<sup>17</sup> that “only” two of the world’s fifty largest economies, and thirty-two of the hundred largest, were transnational corporations. The rest were states. Even so, this is hardly insignificant.

To this observation two considerations must be added. The first is that territories are immobile, while companies are partially mobile, which gives them, in their relationship with states, more room for maneuver. The second is that states (with the exception of China, where investment is guaranteed, since domestic savings make up 40% of the gross national product) have recourse only to their budgets, and not to the totality of a country’s economy. Budgets, particularly in developing countries, which have a difficult time raising taxes, rarely amount to more than 20% of the gross national product and are almost totally consumed by

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<sup>17</sup> Paul De Grauwe and Filip Camerman, *How big are the big multinational companies?* De Grauwe, 2003.



recurring operating costs, such that the margin for maneuver is really only a couple percentage points—maybe 1% or 2% of the gross national product. In companies, on the contrary, gross operating income (GOI) represents on average, according to Thomas Piketty’s calculations,<sup>18</sup> a third of value added. Moreover, this figure has been remarkably stable over the past seventy-five years. Needless to say, a CEO can obviously not use his gross operating incomes to satisfy his or her every whim. It is needed to pay taxes and interest on loans, to give dividends to shareholders, and to finance material that must be replaced. Still, this suggests the amount of maneuvering room that is available to companies, which is ten times greater than states of comparable size. Martin Wolf observes that—as we no doubt already suspected—that the American economy is 156 times greater than the largest economy in the world, while the United Kingdom’s is twenty-three times greater. But if my estimate of the difference in maneuvering room between states and companies is correct, then the United States is only 15.6 times greater than the largest company, and the UK 2.3. This is not enough to make transnational corporations “territorial powers” in the traditional sense of the term, but it does mean that they are without questions decisive actors with the ability to call the shots. This is what we mean by “pivotal actor.”

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<sup>18</sup> Thomas Piketty, *L’économie des inégalités*, La Découverte, 2001.

This ability to act is reinforced by the fact that large companies, in an economy based on knowledge and know-how, are central to strategies of research and development. By affirming ever more clearly that the purpose of publicly-financed research is to strengthen a nation's ability to compete, states have taken further steps towards delegating certain powers to national or continental "champions" (the word has become fashionable and illustrates the idea of pivotal actor rather well).

Two other characteristics of the pivotal actor should be mentioned. The first concerns the organization of subcontracting; the second relates to the role of transnational companies in international trade.

Large companies often "command." They control entire production process—the assembling of their products, commercial networks, links between branches, research and development—but they delegate a rising number of production tasks to a host of subcontractors. With the exception of small companies that dominate a specialized niche, the power relations between "commanding" companies and their subcontractors are very unequal. The Finance Observatory<sup>19</sup> even managed to show a few years ago that large companies drew an increasing share of their profits from financial management, generally to the detriment of subcontractors.

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<sup>19</sup> See [www.obsfin.ch](http://www.obsfin.ch).

The sales figures of General Motors in 2000 were \$185 billion, while its added value was only \$42 million. Sales figures were 4.5 times greater than added value. This means, very generally, that for every salaried GM worker, nearly five workers are employed by GM's subcontractors. And if one remembers that the 5+1 employees who produce for the international market also consume products as well as public and private services, then each GM employee has considerable leverage.

But the pivotal role of multinational corporations is even more obvious in the way that international trade is organized. Let us once again draw on Martin Wolf's excellent work.

Between 1982 and 2001 (i.e., 19 years), total direct foreign investment in the United States rose from \$734 billion to \$6.846 trillion—in other words, it grew by a factor of nine—while world gross national product grew only by a factor of three. The sale of branches of foreign companies has gone from \$2,500 billion to \$18,500 billion—in other words, by eight times. As for exports from foreign-based branches outside the host country, they represent 35% (a third) of the totality of international trade (see Wolf, pp. 231,232).

These statistics help us understand the pivotal role of transnational corporations in development policies and international relations. On this basis, I am not inclined to subscribe, as does the anti-globalization movement, to a diabolical view of these companies. One only has to visit China to realize that such

companies play an essential role in massively redistributing wealth and know-how between continents, which is an essential task of the twenty-first century. But the consequences of this redistribution for rich countries, and of the sacrifices that it entails in terms of access to resources and lifestyle (as well as purchasing power, if they continue their current lifestyle) is not equally distributed among their populations. They target their least qualified and least mobile members. Hence the rise of right-wing and left-wing populism, which manifested itself the French and Dutch referenda on the European constitution in May-June 2005.

These various observations offer a precise picture of what we mean by pivotal actor.

Are multinational corporations that produce goods and services destined to remain for centuries to come the world's pivotal actors? Personally, I doubt it. During a conference organized by the newspaper *Le Monde* in March 2002 entitled "Can Citizens Change the Economy?,"<sup>20</sup> which assembled various "alter-economy" activists, the economist Christian Jacquiau, an accountant and vice-president of "Consumer Action," offered a good definition of what I mean by pivotal actors when describing what he, in a recent book, calls *The Dark Side of Big Retail* ("Les coulisses de la grande distribution").<sup>21</sup> He demonstrates that in France there are

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<sup>20</sup> *Les citoyens peuvent-ils changer l'économie ?*, Éd. Charles Léopold Mayer, 2003.

<sup>21</sup> Christian Jacquiau, *Les coulisses de la grande distribution*, Albin Michel, 2000.

only five major group purchasing organizations, which control the consumption market.

Because of their oligopolistic position, these organizations can decide on what prices consumers should pay, and thus on how to distribute added value between “input” producers and transformation companies (who are able to pass some costs onto the state), be they Common Agricultural Policy subsidies or social welfare resulting indirectly from the outsourcing of production and resulting unemployment. I cannot speak to the accuracy of Christian Jacquiau’s claims, though they strike me as very well informed. Rather, I want to emphasize that some actors are able to reorganize the whole game according to their own particular rationality. Already, retail and financial companies have begun to take the place of manufacturers as pivotal actors. But other actors will come. To fully understand this, we must again turn to history.

One approach is to follow Jacques Le Goff, by considering changing representations of the hero at different historical periods. The hero is more likely than not to be the pivotal actor.

In Western Europe during Middle Ages, following the period when the Church was all-powerful, the first heroic figure was the king. Beginning with Saint Louis, and continuing with Philippe Le Bel, the person of the king became increasingly separated from the institution of the state. Foreign trade and domestic

production were seen as promoting the nation's strength. Whereas the saint, the knight, and the king were the heroes of the preceding age (with all three being symbolically combined in the person of Saint Louis), by the sixteenth and seventeenth centuries, with the onset of the Westphalian system, the state had become the pivotal actor. Once absolutism became established in France, the hero, paradoxically, was not the king himself, but rather powerful state administrators, such as Sully, Richelieu, and Colbert.

But it was not long before a new and influential actor, characteristic of the industrial revolution, emerged and asserted its autonomy from the state: the entrepreneur, followed by the modern company.

Sixto Roxas, a Filipino economist who was minister of planning after teaching at Harvard, makes the excellent point that the industrial revolution's greatest innovation was not the market economy—markets are as old and as vast as the world—but the company. As often happens, a new actor was before it had been theorized. The French Revolution's leaders had, thanks to the Enlightenment and thinkers like Montesquieu, a well defined theory of the nation, the state, and politics. However, they overlooked and failed to conceptualize the most influential and pivotal actor of the new era: the industrial company. Since the eighteenth century, a new idea of the hero was emerging. Robinson Crusoe is, strictly

speaking, a myth. His story, according to Francois Ost,<sup>22</sup> is typical of mythical narratives, as Claude Lévi-Strauss understood the term: “A tale of origins that offers a narrative solution to an ideological contradiction afflicting the society in which it is born.”

The story of Robison Crusoe tells “how one man managed gradually to reconstruct his identity, to reappropriate his environment, to take control of events (...). [It tells of a] a rebirth of the world, carried out by a single individual (...). Alone on a desert island’s shore, he is like a new Adam or Prometheus. (...). It lays out an imaginary survival plan, which begins with practical lessons to guarantee immediate survival and which culminates, years later, in feats of colonization. The plan entails the appropriation and gradual mastery of the island and its resources.” Ost goes on to quote Daniel Defoe, who has Robinson say: “I was king and lord of this country indefeasibly and had a right of possession; and if I could convey it, I might have it in inheritance, as completely as any lord of a manor in England.” Ost argues that this is the characteristics of property as it is defined by the Civil Code to the scale of an entire territory: the right “to use and to enjoy the use of one’s possessions to the most absolute extent.” Later, Robinson says: “we love, we hate, we covet, we enjoy, all in privacy and solitude. All that we communicate of those things to any other is but for their assistance in the pursuit of our desires; the end is

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<sup>22</sup> François Ost, *Raconter la loi*.

at home [i.e., oneself].” Ost makes the following observation: “Unlike the heroes of chivalry and legends from antiquity, Robinson does not seek a glorious or beautiful death. Like the bourgeois that he is, he pursues the dream of a profitable life.”

The conqueror of a territory and the maker of a world of which he is the absolute sovereign, Robinson Crusoe yields, a century and a half later, to another type: the triumphant entrepreneur or financier. By chance, while browsing Charles Léopold Mayer’s library, I stumbled on particularly interest work, of which there were many examples in the interwar period. It is written by a German, Richard Lewinsohn, and is entitled *The Conquest of Wealth*<sup>23</sup>. It consists of nine biographies: John Rockefeller, the Rothschilds, Alfred Nobel, John Pierpont Morgan, the Krupps, Thomas Edison, Henry Ford, Lord Leverhulme (the founder of Unilever) and Aristide Boucicaut (who launched the Bon Marché). It offers nine individual or familial stories of the conquest of the world by the new pivotal actor that is the large company or privately owned bank. They are reverential tales, with an intent that is both hagiographic and pedagogic. The titles of two books by Henry Ford that are given near the end of the volume, *Today and Tomorrow* and *My Life and Work*, exemplify this pedagogic purpose. They contain all the elements of the “exempla” of the thirteenth century as described by Jacques Le Goff.

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<sup>23</sup> Richard Lewinsohn, *À la conquête de la richesse*, Payot, 1928.



The stories all consist of the same basic ingredients: a modest birth (a way of reminding us, as did Napoleon, that every soldier has a field marshal's baton in his haversack), precocious talent (as in the lives of medieval saints, who manifest their holiness at a tender age), formidable tenacity in the face of adversity, and a relentless drive to surpass, and even to crush their rivals.

From this perspective, John Rockefeller's mixture of piety and scrupulousness is fascinating, as his refusal to rely on anyone but himself. From the outset, his destiny was played out on the international stage, and the achievement of his mission came before any national interest. The Rothschilds, once they had acquired their power, were the bankers of the German Empire, but also of England, France, and Italy. As for Krupp, often seen by the French as a symbol of German militarism, he is described by the author as an industrialist whose primary concern was that his steel cannons be the best in the world, and who presented them first at the Universal Exhibition (a wonderful symbol), then to Napoleon III, and only finally to Prussia—who bought them.

In recent decades, one can still find heroic stories of this kind in the economic world. However, I do not think they involve founders of industrial empires. Similarly, the image of the heroic scientist—Louis Pasteur, Albert Einstein, or Marie Curie—seems to have fallen out of fashion. One must instead consider the examples of Bill Gates and the Microsoft saga (in other words,

intangible capital). Or, in the realm of finance, one could cite the case of George Soros, whose “exemplum” is the devaluation of the pound sterling: the story of a Hungarian Jew who immigrates to the United States and brings the proud City of London to its knees. Then there are characters like Édouard Leclerc, the little shopkeeper from Landerneau who became a prince of big retail. Yet one cannot help feeling that we are witnessing the tail-end of a comet. The twenty-first century’s heroes are to be found in other contexts than the corporate world. Even so, George Soros, as I see it, belongs to a category unto himself. In addition to being a self-made man—the basic requirement of a modern hero—he is also a philosopher, an economist, and a philanthropist. That he created a foundation is not in itself astonishing. Most modern heroes have, and it is even a common trait of these heroes that they prefer conquest to the materialistic enjoyment of the fruits of their triumphs. As the title of the book by Henry Ford mentioned earlier suggests, “works” matter more than the pleasures they bring. What is even more original about George Soros is that, in the nineties, he wrote a remarkable book named *The Crisis of Global Capitalism*.<sup>24</sup> He shows, in terms that might make anti-globalization activists jealous, the downsides of financial globalization, which was growing without any form of world governance as a counterweight. I observed that these critical reflections exasperated most financiers, who considered it to be in

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<sup>24</sup> George Soros, *The Crisis of Global Capitalism*, Public Affairs, 1998.

poor taste, and even a kind of betrayal—as if he were spitting in the soup of the very system that had made him so successful.

Can one imagine Henry Ford demonstrating how the automobile will lead the world down the path of destruction, or Rockefeller attacking the squandering of non-renewable fossil fuels, or the dramatic geostrategic consequences of the concentration of gas and petroleum resources in just a few regions of the world?

I take George Soros’ approach seriously. The fundamentals of our world have changed. It is a call to restructure its factors and actors.

## **Chapter 2. Globalization in Question**

### **1. “Pro” vs. “Anti” Globalization: The New Divide**

For a number of years, the question of economic globalization—i.e., the interdependence of national systems of production and exchange and the “financialization” of the world (revealed by the American subprime crisis in 2007)—has polarized public opinion. The problems stemming from economic globalization dominate the news: the outsourcing production in search of cheaper labor costs; the decreasing efficiency of national juridical and fiscal regulation; the waning of the very idea of sovereignty; the growing constraints within which politicians can act; the emergence of a small class of the immensely rich alongside the billions of poor; the rise of new financial actors—pension funds, hedge funds, and sovereign wealth funds—capable of destabilizing or seizing control of entire realms of the economy; and the emergence of China and India as new global economic actors, as their companies storm the industrial bastions of the United States and Europe. Should one be for or against globalization? Can we turn our backs on globalization, and return to national or regional systems of production and exchange that are autonomous, even autarkic? Is the large cosmopolitan corporation the new leviathan—a monster that must be slain—or a force for human progress?

It is tempting to reduce the debate over the economy of the twenty-first century to a simple alternative: being for or against globalization. Yet in my view, this would be a mistake. The growing interdependence of human society and our planet is irreversible, as is the interdependence between humanity and the biosphere. The question of how we might dramatically change our current model of production and exchange cannot be reduced to a clear-

cut choice between a globalized system on the one hand, and a patch-work of purely local systems on the other.

Yet the fact remains that for the past decade, political life and public opinion have been dominated by a clash between the proponents and the opponents of neoliberal globalization. The former see globalization as spreading prosperity, and see government regulations as blocking this trend rather than assisting it. The latter see globalization as the root of all evil: political instability, poverty, organized crime, chronic financial crises, and even (why not?) terrorism.

After the fall of the Berlin Wall and the implosion of “really existing socialism,” capitalism reigned triumphant and unrivalled for several years. Its critics lacked an alternative on which they could agree. In many ways, “alter-globalization” is communism’s successor. Like communism—and often with the support of the same individuals—it considers an alternative to triumphant capitalism as both possible and necessary, and seeks to unify all the social forces that are critical of it. Alter-globalization also rejects the idea of an “end of history” (in other words, of a lack of a choice) as a lie of historic proportions.

Both side’s positions are often cartoonish. The answers they propose to the challenges that the world faces are often more imaginary than real. Yet debate does have one genuine merit, as do all democratic debates: it forces the participants to put their arguments on the table, to be clear about the criteria they use, and to present their assumptions and explanatory frameworks. Consideration of this debate is thus a useful detour.

In what follows, I will consider each side’s positions, not to endorse one over the other, but in order to identify the main arguments that each side puts forth. My own position is a somewhat awkward one. On the one hand, I staunchly support alter-globalization: I believe that another global economic system is not only possible, but essential, and that we must find it as

fast as we can, as we are headed straight over the cliff. Yet at the same time, I believe that the alter-globalization movement takes aim at the wrong targets—i.e., international financial institutions and transnational corporations—and that the alternatives that it proposes are overly vague. Most importantly, I believe that a list of grievances, however legitimate they may be, does not in and of itself make for a credible alternative.

Seeing clearly through this debate is harder than it may seem, except when obvious falsehoods are put forth. Consider a relatively straightforward example. Neoliberal doctrinaires like to say: “Good democratic governance is the necessary precondition for economic development and poverty’s decline.” This is clearly false. According to international institutions themselves, two thirds of the global decline in poverty over the past decade can be attributed to China’s development—which is anything but a model of democratic governance.<sup>25</sup> It is usually not, however, this easy to catch the protagonists red-handed. Sorting through these debates, I see three main obstacles to intellectual clarity.

The first concerns the limitations of statistics. Both sides use arguments that rely heavily on numerical data. But the numbers themselves are often problematic. Consider the example of poverty. Does per capita income (measured in money) adequately describe the degree of poverty in a given society? This question boils down to whether there is a difference between poverty and misery, or whether material scarcity, when experienced by the members of a cohesive society, is as bad as the feeling of exclusion, when experienced by the members of a society in which consumption is the norm. It may well be that economic globalization reduces poverty but increases misery. However, since statistical data cannot distinguish between the two, it is impossible to know.

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<sup>25</sup> Pierre Calame, “Le contre-exemple asiatique,” *La gouvernance démocratique*, Karthala, 2008.

The second obstacle stems from the fact that the world is not a laboratory, in which each factor could be isolated as a variable, so that its influence on every other factor could be irrefutably established. The world is what it is. Our data are existing societies; and our statistics often consist of data compiled by particular states. Each society's road to development depends on an array of factors, the mutual influence of which cannot be isolated as in an experiment. At best, we can make plausible hypotheses. To return to China, trying to determine how of much its swift development is the results of its culture, its political system, East Asian dynamism, or its integration into the global economy is purely speculative. At the very most, one can say that these factors blend together, constituting a unique explanatory cocktail at any particular moment. We must also note that contradictory interpretations are inevitable. The analysis of data may make it possible to eliminate false interpretations; but an existing explanatory framework is not necessarily "true" simply because it is consistent with facts.

Finally, a third obstacle arises from the fact that some concepts are imprecise and emotionally loaded. Take the example of the pretty word that is "democracy." Does it refer to a particular political regime—representative democracy—or, more substantively, to the right of people to determine their own fate—and, if so, what "people" are we talking about? Neoliberals try to bring democracy over to their side, by linking economic to political liberty. The alter-globalization movement wants to claim it for themselves, arguing that the rules of international trade dispossess "the people" (whom they claim to represent) of their right to self-determination.

Thus it is not surprising that both sides trade barbs and attack each other with simplistic arguments. Despite its acrimony, this debate is worth thinking about. Since any duel must have its champions, I have chosen René Passet, the author of *Éloge du mondialisme par un «anti»*

*présumé (Praise for Globalization by a Presumed Detractor)*<sup>26</sup> to represent the “alter-globalization” camp, and Martin Wolf, of whom I have already spoken, to carry the neoliberal banner. Rather than presenting an exhaustive account of the debate, I will try to highlight the main points on which they disagree.

I find Martin Wolf interesting, first because he argues well, and secondly because his book is an attack against globalization’s growing ranks of opponents. As a result, his defense of neoliberalism is sharper than arguments that once presented it as a self-evident consequence of natural laws.

As he reminds us in his introduction, Martin Wolf’s struggle is rooted in his family history: he comes from a family of Jewish Austrian intellectuals who fled Nazism by finding refuge in London. Though he was born after the Second World War, he has, through his family’s memory, a visceral relationship with the twists and turns of twentieth century history: the first era of economic globalization (1870-1914); its sudden halt with the First World War; the rise of communism and of Marxism’s daunting intellectual appeal; the skill with which Marxism responded to the great frustrations stemming from the industrial revolution’s unequal distribution of gains and sacrifices, on which basis totalitarian regimes were established. Marxism’s intellectual appeal explains in part the blindness, and even the intellectual dishonesty, of much of the “progressive” bourgeoisie, which refused to acknowledge that the apparent triumph of “progress” and “justice” was merely a pretext for the establishment of totalitarianism.

After the first wave of globalization ended with the First World War, it was brought to another brutal halt by the interwar crises and the 1929 crash. This brought about the rise of fascism, nationalist retrenchment, a return to power politics—all of which result inevitably in the Second World War, the extermination camps, ethnic purification, and, ultimately, a nearly

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<sup>26</sup> René Passet, *Éloge du mondialisme par un “anti” presumé*, Fayard, 2001.



successful European suicide attempt, which brought many countries down with it. It was this immense trauma that inspired Europe's founding fathers. It explains several other postwar developments: the GATT (Global Agreement on Transportation and Trade); the desire to overcome political and economic nationalism; and the idea of trade as the solution to the belief that "never again" should a genocidal regime be allowed to rise. And just as one Europe's founding fathers, Jean Monnet, saw European construction as a step towards establishing a global federation, so the elimination of barriers to free trade between European countries appeared as the first step towards trade liberalization on a global scale.

This is the historical tradition to which Martin Wolf belongs. I appreciate his honesty. He is *not* simply a faceless lackey of international capital who thinks only in terms of profit, and who is numb to the cries of the masses when they are denied entry to prosperity's banquet! The reason that he attacks the anti-globalization movements so vigorously, by lucidly and energetically analyzing their intellectual dishonesty and internal contradictions, is, quite simply, that he is afraid that history will repeat itself. He sees—and not entirely without reason—a resurgence of the intellectual elites who once mobilized the masses and provided ideological legitimacy to tyrannical regimes. Without losing his sense of irony, he takes this threat seriously.

The proponents of the conservative counter-revolution, who first appeared in American universities in the sixties before finding their political champions in the late seventies and eighties in Margaret Thatcher and Ronald Reagan, were crusaders who viewed economic liberalism and democracy as two sides of the same coin. With the fall of the Berlin Wall, the Soviet Union's collapse, Mao's death, and China's conversion to the market economy, they believed that they had triumphed for good. Yet now, suddenly, they see a resurgence of ideological dissent, like embers glowing in an ash heap: the neoliberals fear that their opponents

will use the enormous frustrations caused by the second wave of globalization, while also taking advantage of the opportunities it has created (such as oil profits in Saudi Arabia or Venezuela or the internet), to stoke the coals of “Islamic fundamentalism,” “terrorism,” “populism,” or “alter-globalization.” And the neoliberals fear that these little coals may burst once against into a massive bonfire.

In his concluding chapter, entitled “Today’s Threats, Tomorrow’s Promises,” Wolf writes: “the twentieth-century collapse of the international order [he is referring to the way in which the first wave of globalization was brought to a halt by the simultaneous rise of communism and national socialism] began at home with the rise of anti-liberal ideas.” Parallels can be made with what David Henderson, the OECD’s chief economist, calls “collectivists for a new millennium,” that is, groups that have formed to protest global capitalism. In reality, these groups differ greatly from one another, and lack the intellectual coherence of the anti-liberal movement from a century ago. At that time, liberalism’s opponents shared two ideas: radical socialism and race-based nationalism. Both groups proposed state control of the economy and emphasized the priority of the collective over the individual. “Both sought, and knew what they wanted to do with it, power. This is what made them so dangerous”.

“The intellectual origins of today’s anti-liberal movements are (...) much more diverse. They include environmentalists, development lobbies, populists, socialists, communists and anarchists. In a review a book by Mike Moore, the former head of the World Trade Organization, Rosemary Righter of the *London Times* correctly observes that the ‘anti-globalization brigade is a hotchpotch of contradictions, linking Left and Right, Poujadists, protectionists and environmentalists, nationalists and anarchists, stolid religious charities, and, depressingly, veterans of the heady days of radical chic when Western activists brandished Mao Zedong’s little

red book while millions were being murdered in the Cultural Revolution.’ These groups are united only in what they oppose. They are rooted in no cohesive social force, such as the organized working class. They largely reject party politics. They offer no alternative way of running an economy. They are split in their objectives.”

After this negative portrait, Wolf nonetheless concludes: “Part of what some protestors say—notably on the hypocrisy of the advanced countries and the plight of the poor, is valid.” But a political movement, he adds, cannot beat an existing system if its own hands are empty. A movement that confines itself to protest has little chance of winning”.

Wolf’s portrait of his opponents makes some good points. It is, however, easy enough to see the limitations in his own way of thinking, in regards to how he understands the past as well as how he sees the future.

Concerning the past: the idea that the first wave of globalization was a magnificent episode in the story of human progress is shocking. It is belied by the Belgian Congo’s grim servitude; the appropriation of the world’s natural resources for the sole benefit of a small number of rich countries; the sacrifices that industrialization imposed on the majority of the population; China’s semi-colonial status prior to its conquest by Japan; the famine organized in India in the name of free trade; and, last but not least, the competition fueled by hunger for power that culminated in the First World War.

The shortcomings and failures of the second wave of globalization are no less great. Wolf’s understanding of democracy is extremely contradictory: it is celebrated when it brings to power rulers who endorse neoliberalism, but denounced when it creates often inefficient states. On the one hand, the power of the wealthy is exalted: competition between states and

transnational corporations has become a democratic ideal, because it requires governments, under the scrutiny of investors, to offer returns on their investments. But at the same time, it is clearly recognized that the growth of free trade on an international scale, far from abolishing the state's role, only reinforces it and, moreover, increases the need for a genuine system of world governance. Environmental issues have reached a dead-end. Martin Wolf allows himself to write that it is good that polluting industries go to poor countries, because they attach more importance to creating the jobs that they need so desperately than to protecting the environment, which is merely a luxury for the wealthy: "If polluting industries were then to migrate from high-standard regions or countries to low-standard regions or countries, the world would be unambiguously better off."

Finally, despite the rigor of his analysis, Wolf is completely silent on the enormous challenges associated with equitably allocating resources between the planet's various inhabitants. He also says nothing about the fact that transnational corporations contribute to this redistribution, but in a way that imposes almost all the required sacrifices on the least qualified and the most mobile segment of the population.

If it is possible, thanks to a work like Wolf's, to summarize the liberal camp's hopes and fears, it is far more difficult to describe the major tenets of the anti-globalization (or, more accurately, alter-globalization) camp, as it consists of a coalition of often contradictory outlooks that are united only by their struggle.

Yet there is a book that is comparable to Wolf's, in that it is both an analysis and a call to arms: the manifesto written by René Passet in 2001, when he was chairman of Attac's research committee. A respected economist, Passet is the author of *Éloge du mondialisme par un «anti» présumé* (*Praise for Globalization by a Presumed Detractor*). What I find both interesting and

troubling about this work, written by a man who I greatly admire, whose humanist convictions are undeniable, is its exaggerated portrait he presents of his neoliberal enemies and its lack of concrete alternatives.

Passet's views on democracy are similar to Wolf's. Both practice a kind of intellectual terrorism, in that they are only will to consider a government as democratic (regardless of how its citizens actually voted) to the extent that it endorses their own worldview. Wolf celebrates democracy, while often portraying democratically-elected politicians in a negative light. And he has nothing to say about the power of the global plutocracy to influence the outcomes of political campaigns. Passet, for his part, has no trouble describing political elites as the stooges of big capital, except when they represent the "true" will of the people--which, Passet somehow knows, is opposed to globalization. Passet is prone to particularly strong insults.<sup>27</sup> He compares international financiers to Robur the Conqueror, a character created by Jules Verne, who had him say: "I hold control of the entire world, and there lies no force within the reach of humanity which is able to resist me, under any circumstances whatsoever. Let no one attempt to seize or stop me. It is, and will be, utterly impossible. [...] Moreover, on the day when it pleases me to have millions, or billions, I have but to reach out my hand and take them. Let both the Old and the New World realize this: They can accomplish nothing against me; I can accomplish anything against them."<sup>28</sup> This is quite a way to introduce the "real power that belongs to the highest fraction of financial capitalism." "The dream of these new predators is to reach out their hands and take millions, or billions." Passet lambasts the multilateral agreement on investment (MAI), which was "concocted discretely in the complicit shadows of the Château de la Muette (what a

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<sup>27</sup> René Passet, *Éloge du mondialisme par un « anti » présumé*, op. cit.

<sup>28</sup> Jules Verne, *Robur the Conqueror*, in vol. 14 of *Works of Jules Verne*, ed. Charles F. Horne (New York and London: Vincent Parke and Company, 1911), 200-201.

predestined name!<sup>29</sup>), which houses the OECD.” The MAI, he says, “leaves no doubts as to the negotiators’ ultimate purposes.” Invoking the appealing pretext that economic globalization will bring prosperity to all—which is really just the “flower with which the wolf covers himself to look like a sheep”—these would-be masters of the world have in fact but one goal: “To practice extortion on a global scale [...]. Everything was planned to ensure that their dream would be achieved [...], a dismantling mechanism was included along with a ratchet effect, so that we would move forward, constantly, without looking backward, along the path of liberalization [...]. The contours of the world that our new masters, along with their political supporters, dream of now becomes apparent: a world subject to their extortion, in which financial capitalism has fully triumphed, a planet ensnared by the tentacles of their monetary interests, which ruthlessly dictate their laws on sovereign states, while insisting that they be compensated for the shortfalls due to expenditures on defense, the environment, and culture—anything that contributes to a nation’s identity; a world in which politics is simply the tool of finance, to whose continuous enrichment it must tend; and in which money is the supreme value, which men must serve. This is the core of their globalizing project.”

The section headings are in a similar tone: “Devastating Globalization” (page 49); “The Age of Vampires” (page 56); and “The Shredding of Society’s Fabric” (page 64). “This is what neoliberal globalization ultimately is: a vast plot to seize control of the world, for the benefit individuals and institutions who want to make nations and governments the tools of their greed. Globalization is predatory [...]. It is hard not to compare it to an octopus: first, because of its tentacles, and secondly because this is the term often used to describe the mafia, which dissolves boundaries of the formal economy.<sup>30</sup> Under globalization’s various theoretical or ideological

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<sup>29</sup> Translator’s note: “*Muette*” means the “dumb one”—someone who can or does not speak.

<sup>30</sup> “*Pieuvre*” or octopus is a word commonly used in French to refer to the underworld or mafia-like organizations.

covers (about which the major participants could care less) lies a cynical power play, in which—under the pretense of respectability—almost any means are considered legitimate.”

But aren't there some proponents of globalization who have an ethical conscience? No. They are only appearances: “in this way as in every other, they know how (with the help of a few pen-pushers) to cover their tracks and to play with meanings. It is in the name of the human community that we refuse their globalization and that we affirm our own.” Fortunately for everyone, these authentic globalizers are trying to build a “human earth”: one that will confine the economy to its proper boundaries, while imposing social and environmental norms.

Passet's polemical description of the “little gray men of Davos” is fair enough. So are Wolf's attacks on intellectuals who still long for a romantic kind of communism, as they roam the countryside preaching the problematic gospel of economic localism and regional autarky, despite the strong similarity between these ideas and the Khmer Rouge's. But Passet's militant fervor also leads him (and his readers) to view these “little gray man” as the perpetrators of world conspiracy, in which rootless, rapacious capitalists—wolves in sheep's clothing (to use his own words)—whose appetites are insatiable despite their massive wealth, steal the well-meaning slogans of their opponents, change their meaning, and use such dignified words as “globalization,” “freedom,” “responsibility,” and “democracy” to deceive common folk and to pull the wool over their eyes.

His description of the OECD's efforts to establish a multilateral agreement on investment (MAI) as a means to abolish state sovereignty (and thus democracy), thus enslaving states to big capital's interests, goes way too far in personalizing a complex process. It is far too easy to slip from the little gray men of Davos to the “gnomes” of Zurich. It is tempting, in short, to believe that an international plot is underway to enslave world to submit to the will of a few.

As for solutions: Passet states his general intentions, but makes little effort to propose concrete alternatives. A world order based on shifting alliances between states sharing similar interests brings back, at least in Europe, some rather bad memories. The critique of international finance and of institutional investment funds discretely overlooks the fact that many of them are pension funds. As for an economy that serves humankind (rather than the other way around), who would not agree? But given how long we have been talking about it, the time has come to think clearly about what this means concretely. We could not agree more about building a world community. Yet this cannot be limited to romantic “social forums.” It requires genuine world governance, including an international juridical order. But this, in turn, will conflict with state sovereignty—the very principle that transnational corporations are accused of having violated.

Moreover, both Wolf and Passet are depressing. Wolf is disheartened at the “sight of the affluent young of the west wishing to protect the poor of the world from the [globalization] processes that delivered their own remarkable prosperity,” as well as by “the return of all the old anti-capitalist clichés ... as if the collapse of Soviet communism had never happened.” (p. 320—the final paragraph of his book).

As for Passet, his conclusion portrays the same youth in somewhat different terms: “The peaceful crowd of Porto Allegro, despite all the suffering that it represents, did not hope for the worst. And it is to prevent it from doing so that we must try to change minds while there is still time [...] Compared to the little gray man, isolated in the halls of power [the introduction speaks of “the little gray men, the cloistered ones of Davos, protected from the very crowd that represents the advance of globalization”], how lovely was the great, generous swell of men and women taking a standing against the servitude of the masses!”



After such flights of lyricism, reality, with all its complexity and contradictions, will appear rather dreary.

## **2. Globalization or Internationalization?**

I will not be consider the theory that claims to prove, based on the evidence of comparative advantages, that free trade is always good for growth. Instead, I would like to consider some most important characteristics of the international economy over the past fifty years.

The first major characteristic is the technological revolution, particularly as it has affected information (notably computer technology and the Internet) and transportation. Space has become thinner. Information, goods, and people move around quickly and cheaply. In the production process, immaterial capital (software, data processing, etc.) is surpassing material capital (i.e., buildings and machinery) and labor power. The production of so-called primary goods (crops and raw materials) and secondary (i.e., manufactured) goods represents an ever dwindling share of total value added. The tertiary sector is increasingly dominating the economy, as public and private services take on an increasingly important role. But some of these services, because they are directed at specific groups, are essentially territorial, and are aimed either at the population as a whole (as with education, health, and aid for senior citizens) or at those who can afford them. Others, however, require no direct contact with the service's beneficiaries.

These technological changes have contributed to economic globalization. Everyone has heard of computing services in Bangalore and marketing services run from Asia or Africa. When transporting a good from China to Chambéry, the leg between China and Le Havre represents one third of the cost, the leg between Le Havre and Lyon another third, and the leg between

Lyon and Chambéry still another third. This example makes it clear why labor cost differentials between China and Europe are so economically decisive.

The European Union offers excellent example of how countries that are economically behind can “catch-up” with others. Spain, Portugal, and Ireland—to name only a few—benefited greatly from admission. It allowed them to catch up with the original members. The elimination of economic barriers, which was a deliberate political decision to help poorer countries catch up, enabled these countries to derive maximum benefits from the economic potential of these new technologies.

But in keeping with Schumpeter’s idea of “creative destruction,” these technological developments led to the rapid obsolescence of certain professions and production sectors. This set off large-scale industrial and sociological change, which rewarded mobility and penalized immobility. Economic globalization was not the cause of these transformations, but it did accelerate them up. In particular, economic globalization made it more difficult to implement, at the national level, policies that might have mitigated some of the harsher consequences of these changes, and perhaps slowed down the pace at which they were occurring.

The second characteristic is political. In this instance, the cases of China and India are exemplary. Both made, at specific moments in their history, conscious political choices to unleash domestic change by opening themselves up, albeit in a controlled way, to foreign trade. The Chinese never tire of comparing the Qing dynasty’s policies to Mao’s. They love explaining how much the “closed door” policy cost them in terms of ideas, knowledge, technology, and foreign capital. This opening-up has come at a price for China’s communist leadership: the brutal old state industries have collapsed, and the peasant world has suffered. But can one say that China’s growth is an automatic result of economic globalization? Clearly not. India, after Nehru

and Indira Gandhi, opened up in its own way, at a pace that was slower than China's. This was because India did less dependent on foreign companies established on its soil for technology transfers and access to international markets. India's transformation may, however, be more reliable in the long run.

The third significant fact is the massive use that our production and exchange system makes of fossil fuels and (to a lesser extent) mineral raw materials. Yet fossil fuels and raw materials are distributed very unevenly across the globe. The Middle East is the world's oil well while Russia holds a significant share of natural gas deposits. This reality shapes the conditions under which globalization occurs, since each nation must sell goods that ensure it can supply itself with its own share of fuels and raw materials. Securing these resources, however, does not necessarily lead to economic globalization. The other possible routes are direct political control of the needed resources and bilateral bartering agreements. At present, many countries rely on all three approaches. For example, in Africa, various economic powers—Europe, the United States, and China, and soon India as well—are falling over themselves to establish direct political control and to secure bilateral agreements. On the other hand, Hugo Chavez has attempted to use Venezuela's oil wealth to extend political control over several smaller Latin American countries. In any case, energy and raw materials is closely intertwined with economic globalization, as only a few countries are able to be self-sufficient.

The examples of oil and gas are revealing. One of the most important events of the past decades has been the decline of the "majors" who once controlled these resources. Oil and gas-producing countries are fully aware of the value of the "rent" they can charge for use of their resources. They intend to this income for themselves (or for their leaders), even if from time to time they sign operating contracts with companies that can provide advanced technology,

capital, and outflow networks. The emergence of sovereign wealth fund in oil and gas producing countries has become, like petrodollars once were, a basic structure of the global economy.

The fourth significant characteristic concerns demography. The populations of the first regions to develop economically, including Europe, Japan, and to a lesser extent the United States, are aging rapidly. At the same time, they are becoming more middle class. One of their greatest concerns is how to pay for the elderly. Governments and pension funds are trying to find a solution. In theory, this can be done in one of two ways: by keeping production at home, or by exporting production while continuing to control it. The Philippines are particularly interesting in this respect. They have retirement homes for elderly Japanese, but at the same time send nurses overseas. Foreign immigration is considered dangerous and socially destabilizing, so it is artificially reduced by quota systems. Hence globalization's peculiar characteristics: it makes forbidden to forbid the free movement of goods and services; yet at the same, it makes it forbidden to allow the free movement of peoples. The savings of the rich, aging countries must thus be tied to the labor of the youthful, poor countries. The safest way to do so is by investing in companies based in developed countries, which encourages them to internationalize their production. This solution is less risky than investing directly in companies in third-party countries, which are more vulnerable to nationalization and more difficult to control.

We have then four powerful factors that have contributed to the internationalization of the economy. All of them favor the development of transnational corporations. To prosper, they need free trade zones that dispense with restrictive international laws. Because they are the only actors who truly operate on an international scale, they are able to dictate their terms to sovereign states. Consider the way that state visits have essentially become contract-signing rituals. Heads

of states are often little more than the couriers for the CEOs who travel with them to make sure that relations between governments preserve “a favorable business climate.”

Transnational corporations also force states to compete with one another, thanks to the growing importance of immaterial capital and the increasing mobility made possible by cheap transportation costs. For this reasons, globalization is often associated, from the standpoint of social policy, with a “race to the bottom.” As we shall see, reality is in fact slightly more complex. That said, the existence of competition is irrefutable.

What remains then of the alleged link—be it positive or negative—between economic globalization and growth? To be honest, not much. I see no tangible connection between the speed or degree to which countries open themselves up to the world economy and economic growth. There are far too many factors that determine exactly what kind of opportunities internationalization can bring for there to be a one-to-one connection between them. But there are still a number of issues relating to economic globalization that are worth understanding: the concentration of wealth in the hands of a few; growing inequalities between countries; rising inequalities within particular countries; the respective proportions of labor and capital in the composition of value added; and changes in the state’s ability to intervene in the economy. It is to these five questions that I will now turn.

### **3. Who Benefits from Globalization?**

#### ***Does Globalization Concentrate Wealth in the Hands of the Few?***

The individual concentration of wealth is certainly globalization’s most salient feature, even if its practical consequences are somewhat limited (notably in terms of power). Martin

Wolf cites a relevant article by Igancio Ramonet from *Le Monde Diplomatique*—though he does so, needless to say, in order to attack it. I would like to refer to it as well, primarily because it mentions statistics that are frequently evoked in anti-globalization discourse. “The dramatic advance of globalization and neoliberalism,” Ramonet writes, “has been accompanied by an *explosive growth in inequality* and a return to mass poverty and unemployment. The very opposite of everything which the modern state and modern citizens is supposed to stand for. The net result is a *massive growth in inequality*. The United States, which is the richest country in the world, has more than 60 million poor. The world’s foremost trading power, the European Union, has over 50 million. In the United States, 1 percent of the population owns 39 percent of the country’s wealth. Taking the planet as a whole, the combined wealth of the 358 richest people (all of them dollar billionaires) is greater than the total income of 45 per cent of the world’s poorest inhabitants, that is, 2.6b people.” (quoted in Wolf, p. 138). Wolf mocks Ramonet’s comparison of assets (of the rich) with income (of the poor). But his sarcasm is ill-placed: even if one divided the assets of these 358 richest people by 20 in order to gauge the income generated by these assets, the gap remains colossal.

What would have been the results of similar comparisons two hundred years ago? One hundred years ago? Fifty years ago? Even twenty years ago? Honestly, I don’t know. Can this unbelievable gap be blamed on economic globalization? I still don’t know. Is economic globalization significant in explaining inequality between societies and within particular societies? This is not clear, either. In his book on inequality, for instance, Thomas Piketty, for instance, dwells little on data of this kind, though he does demonstrate that the share of income derived from assets increases significantly for the 20% of households with the largest incomes. He notes that in France, 10% of households own 50% of all assets, but he also observes (on page

8) that “revenues from occupations are at least six or seven times greater than the capital revenues of households, and this is general characteristic of income distribution in all Western countries.” What is certain is that there exists a core group of extremely rich people. Beyond a factor of several thousand times that of the poorest incomes, each additional zero (i.e., from 10 to 100) may have significant consequences for the distribution of power, but probably relatively little for differences in life-style.

The most decisive factor in the short term is undoubtedly the growing divide between the economic elites who truly “inhabit” the international economy, who are mobile, live among themselves, and share the same values and prejudices, and the rest of the population. The effect of stock options, for instance, has been to convert upper management to the values of the shareholder, distancing them from the concerns of other employees. The former middle class, which in its vastness helped to stabilize mass society, is now split between an economic, administrative, and political elite and the executors of an information economy. In Europe, for instance, the children of EU bureaucrats have significant advantages if they pursue the same careers as their parents. The toxic consequences of such a divide cannot be sufficiently emphasized.

### ***Does Globalization Increase Inequalities Between Nations?***

Forty years ago, if one heeded the *tiers-mondistes* (Third World advocates), the verdict was in: international trade could only develop to the detriment of poor countries. Liberals defended the opposite thesis, but considered it equally self-evident: international trade would, over time, allow poor countries to catch up. As always, the truth lay somewhere in the middle. Each side obviously cites statistics to support its views, but conclusions depend on the period and

the countries considered. Moreover, in order to draw an unambiguous conclusion we would need to rely on statistics that actually reflect social reality—i.e., which can distinguish objective poverty from the kind of subjective poverty that results from beaming images of prosperity into the most remote village or shantytown. But we don't dispose of such statistics. On this point, I follow the well-informed and nuanced conclusions of Jean Gadrey.<sup>31</sup>

The most noteworthy phenomenon, over the long term, is that between 1820 and 1950 inequality between countries grew considerably: the West had its industrial take-off, and left other countries behind. This can be seen on the first curve on the chart below, which shows changes in the Gini index for three variables: inequality between countries; inequality within countries; and total inequality.

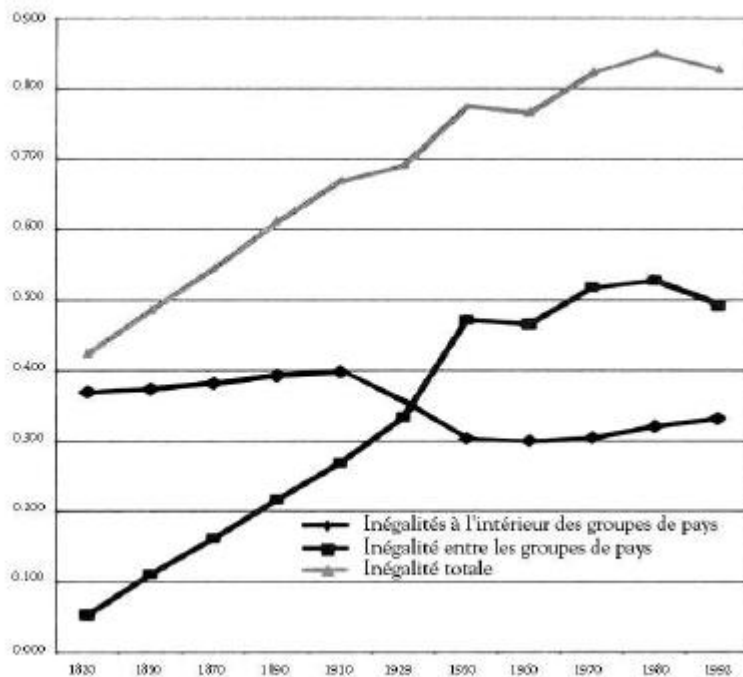
Inequalities between groups of countries greatly increased between 1820 and 1950. The first wave of globalization, between 1870 and 1910, does not indicate an acceleration of the trend towards increasing inequality. On the contrary, it was between 1929 and 1950—a period marked by national retrenchment—that inequalities between groups of countries grew the most. Growth in inequality was much slower between 1950 and 1980, and it would appear even that inequality began to subside around 1980—i.e., the very moment at which the second wave of economic globalization was picking up speed. This is easily explained: precisely at this moment, China and India, which together represent 40% of humanity, began to take off.

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<sup>31</sup> Jean Gadrey, *Alternatives économiques* 256, March 2007.



## The Historical Evolution of Inequality between and within Countries<sup>32</sup>



Source : F. Bourguignon and Ch. Morrisson, "Inequality among World Citizens, 1820-1992," *American Economic Review* 92:4 (September 2002): 727-44.

### *Does Globalization Exacerbate Inequality within Countries?*

Between 1978 and 2001, GDP per capita in the United States, Western Europe, and Japan grew generally at the same pace, increasing at an annual rate of 1.7% for the first two and at

<sup>32</sup> The Gini index is an aggregate index that makes it possible to describe the distribution of incomes in a given society. The Gini coefficient is 0 when all incomes are distributed equally and 1 when they are distributed completely unequally. The Gini coefficient is calculated on the basis of the following formula:

$$G = \frac{2}{n^2 \bar{y}} \sum_{i=1}^n i (y_i - \bar{y})$$

In which:

n=Total population

y=Average income

yi=The income of the umpteenth household.

Source : "Income Distribution and Poverty: Invited paper submitted by the Task Force on Statistics for Rural Development and Agriculture Household. Joint UNECE/EUROSTAT/FAO/OECD Meeting on Food and Agricultural Statistics in Europe (Rome, 29 June-1 July 2005). Available on the UNECE website at: <http://www.unece.org/stats/documents/ces/ac.61/2005/3.e.pdf>.

1.8% for the latter. But during the same period, China grew at a rate of 4.27% annually and India at 2.29%. Alone, they account for 40% of humanity. At the opposite end of the spectrum, Latin America, at 1.28%, and particularly Africa, at 1.6%, were left behind. Thus economic globalization, insofar as it is the primary cause of these developments, has at the very least had divergent effects.

Let us now turn how inequality has evolved inside the same group of countries. It grew slowly from 1820 to 1910, declined between 1910 and 1950, picked up slowly after 1950 and seems to have accelerated slightly in the most recent period.

When one considers inequality on a global scale, inequality between countries is what stands out. It contributed to an overall growth in inequality until 1980, and subsequently declined.

We can fine-tune this analysis by focusing on OECD countries. I will rely on the work of Thomas Piketty. When one defines income inequality (within the OECD) as the relationship between the income level above which the richest 10% lives and the income level below which the poorest 10% lives, the first thing one notices (drawing on OECD statistics) is considerable country-to-country variation.

Consider the following chart from Piketty's book:

### Income Inequality in the OECD Measured by a P90/P10 Ratio

Sweden	2.7	United Kingdom	3.8
Belgium	2.8	Italy	4.0
Norway	2.9	Canada	4.0
Germany	3.0	United States	5.9
France	3.5		

*Reading Key: in Sweden, to belong to the richest 10%, one must earn 2.7 more than the poorest 10%.*

*Note: The P90/P10 ratio refers to disposable income adjusted for household size.*

*Years: 1984 (Germany, France), 1985 (Australia), 1986 (United States, Italy, Norway, United Kingdom), 1987 (Canada, Sweden), 1988 (Belgium).*

Source : LIS, Atkinson, Rainwater and Smeeding, 1995, p. 40.

It is not surprising to find at the two extreme ends Sweden, with a ratio of 2.7, and the United States, with a ratio of 5.9. This ratio cannot be explained in terms of the extent to which each economy is open to the global market, as the Swedish economy, like the European economy overall, is considerably more open than the American economy.

Even more striking is the close proximity between France, with a ratio of 3.5%, and the United Kingdom, with a ratio of 3.8%. France, after fifteen years of socialism, and the UK, after

a decade Thatcherism, are more or less in the same situation. This suggests how great the disparity between political discourse and reality can be.

What about recent changes in income inequality? On this point, too, Piketty has gathered very thought-provoking data. Particularly interesting is how the United States, France, the United Kingdom, and Sweden compare between 1970 and 1990. In the United State, inequality went from 3.2 in 1970 to 4.5 in 1990. In France, it declined from 3.7 to 3.2. In the United Kingdom, it grew from 2.5 to 3.3. In Sweden it remained stable at 2.1

Between 1820 and 1970, the Kuznets curve was followed quite closely. Development first produces increasing inequalities, as traditionally agricultural societies industrialize and urbanize. But then these disparities stabilized and subsided significantly. China, clearly, remains at the initial phase.

In an article published by the *American Economic Review*,<sup>33</sup> Piketty and Emmanuel Saez analyze changes in high incomes (the richest 10% of the population) and the highest incomes (the richest 1%) in the United States, Europe, and Japan over the course of the twentieth century.

A first observation is that it was the highest incomes that underwent the most dramatic change. Fluctuations in high incomes over time can essentially be imputed to changes in the very highest of incomes. The overall share of highest incomes shrank during the interwar years and the Second World War because capital income contracted so dramatically. Yet the share of capital in overall income has not risen significantly since this period. The authors advance two related hypotheses: major crises (i.e., war and 1929) affect capital holders disproportionately; and progressive taxes on incomes and inheritances help reduce income disparities. However, by the end of the seventies, the share of national wealth accruing to the highest incomes began to

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<sup>33</sup> Thomas Piketty and Emmanuel Saez, "The Evolution of Top Incomes: A Historical and International Perspective" *The American Economic Review* 96:2 (2006): 200–205.

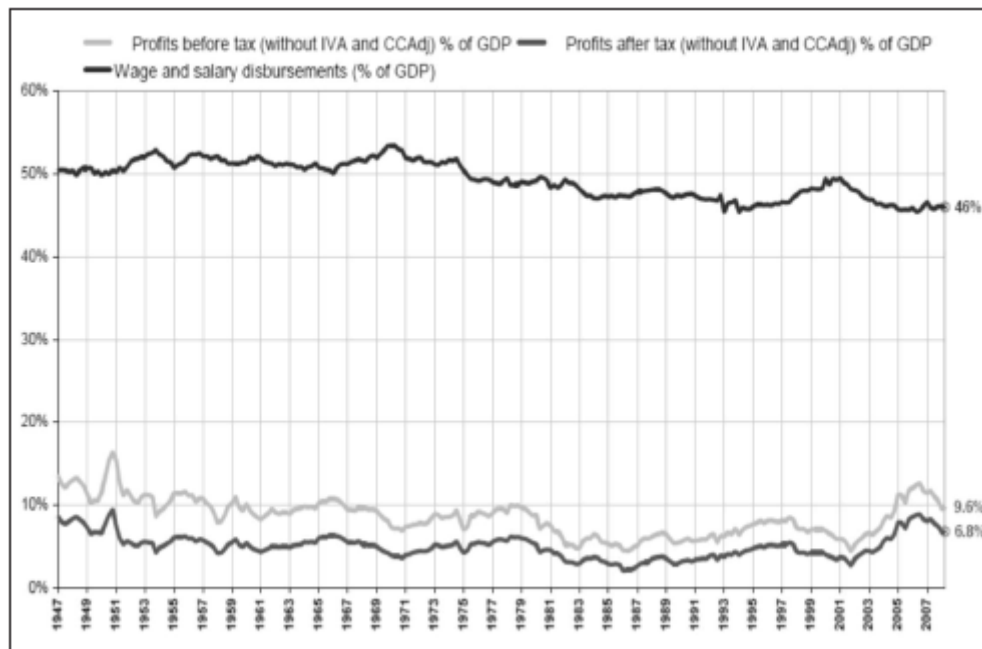
rise rapidly in the Anglo-Saxon countries, as a result of the emergence of a very top tier of professional incomes. This trend did not appear in France or Japan. So can it really be attributed to economic globalization? Must it not rather be attributed to a new wave of industrialization, tied to the growth of service-related work and the rise of information and communication technology? The question remains open.

### ***Does Globalization Steal from Workers and Give to Shareholders?***

If the answer to this question were “yes,” the reason would be that, over time, the share of corporate value added going to capital increased while the share going to labor declined. The share of value added allocated to capital is the operating surplus. It includes taxes on profits, the amortization of investments, reinvested profits, and dividends paid to shareholders. By compiling various sources, Thomas Piketty again provides us with valuable information about the comparative evolution of this distribution in the United States, France, and the United Kingdom between 1920 and 1995. It confirms the remarkable stability of this distribution over time: “The share of salaries never falls lower than 60% and never rises higher than 71%, with value added generally around 66-68%, and it is impossible to discern even the slightest systematic tendency of the share of salaries to increase or decrease over time (Piketty, pp. 40-41). An even more striking fact is that when one compares the period between 1980 and 1995, the share of capital decreases from 33.9 to 33.5% in the United States, increases slightly in the United Kingdom from 29.2% to 31.5%, and leaps in France from 28.3% to 39.7%. Piketty asks us to take these numbers with a grain of salt, as the methods of calculating them can vary; but even so, the ranking between countries is very interesting.

The problem can also be approached by analyzing salaries and profits after taxes as a share of the gross national product. Consider the following chart, which shows their evolution between 1947 and 2007.

### The United States: Salaries and Corporate Profits



One sees a slow erosion of the share of salaries, but it does not contribute to an underlying increase in the share of profits after taxes. On the other hand, a recent (2001-2006) and sudden increase in profits is discernable

Some of the most striking data concern the evolution, in the United States, of the profits of financial institutions as a share of all corporate profits. These changes can be seen below:

## The United States: Financial Profits



From 1947 to 1987, this share fluctuated considerably, gravitating towards an average of 15%. But as of 1987, it began to grow, ultimately reaching around 30%. This illustrates in concrete terms what the “financialization” of the world means.

### *Does Globalization Undermine the Ability of the State to Act?*

One of the principal theses advanced by economic globalization’s opponents (Passet included) is that it renders states powerless, forcing them to compete with one another as well as with stateless capital. Moreover, states are punished if they practice redistributive policies. They are thus under pressure to align themselves on the lowest common denominator, transforming themselves into “minimal” states. I was briefly persuaded by this argument, which on the surface seems pretty obvious. It seems consistent with way that corporations in recent years have forced the lowering of economic and social standards by threatening to outsource their operations to cheaper labor markets. But what exactly do the numbers say? Martin Wolf offers us a helpful

compilation of data available for thirteen developed countries. From 1913 to 1996, public expenditures (including government spending and social transfers) as a share of GNP rose from an average of 13.1% to 45%, as the following chart shows:

**Total Public Expenditures as a Percentage of Gross National Product**

Country	1913	1937	1960	1980	1996
Australia	16.7	14.8	21.2	34.1	35.9
Austria	17.0	20.6	35.7	48.1	51.6
Canada	NA	25.0	28.6	38.8	44.7
France	17.0	29.0	34.6	46.1	55
Germany	14.8	34.1	32.4	47.9	49.1
Italy	17.1	31.1	30.1	42.1	52.7
Ireland	NA	25.5	28.0	48.9	42.0
Japan	8.3	25.4	17.5	32.0	35.9
Norway	9.3	11.8	29.9	43.8	49.2
Sweden	10.4	16.5	31.0	60.1	64.2
Switzerland	14.0	24.1	17.2	32.8	39.4
United Kingdom	12.7	30.0	32.2	43.0	43.0
United States	7.5	19.7	27.0	31.4	32.4
Arithmetic average	13.1	23.8	28.0	41.9	45.0

Source: Vito Tanzi and Ludger Schuknecht, *Public Spending in the 20th Century: A Global Perspective*, Cambridge, Cambridge University Press, 2000.



Growth accelerated during the golden age of the welfare state: it climbed from an average of 28% to 42% over twenty years (1960-1980). What is even more striking is that after 1980, the GNP share of expenditures continued to grow, though at a much slower pace, rising from 42% to an average of 45%. More remarkable still are the extraordinary disparities between the thirteen countries. Take the case of France and the United States. The rate of public expenditures has always been significantly higher in France than in the United States. At the beginning of the period, in 1913, France was already at 17%, compared to 7.5% for the United States. Until 1960, the two countries evolved almost in tandem. By 1960, the French rate of expenditures had doubled, reaching 34.6%, while the American rate had almost quadrupled, rising from 7.5% to 27%. Consequently, by the end of the period, the gap between the two was slightly less than 7%, where at the outset it had been 10%. Only around 1960 did the French and American models begin to diverge sharply. Whereas the American expenditure rate rose from 27% to 32.4% (roughly by 5 points), the French expenditure rate mushroomed from 34.6% to 55%.

A first observation to be made about these statistics is that in no country did the expenditure rate decrease. The “downward pressure” thesis does not hold water. I can’t say if we should predict such pressure in the future; but the fact remains that so far, it has not happened.

The second and obvious conclusion is that we are dealing with here are national choices about social models. These choices are not related to the decision to open up one’s economy to the outside world. The European economy is more open than the American, and yet its expenditure rates are much higher than those of the United States. If one chooses to speak of an “Anglo-Saxon model,” one must be careful to nuance one’s claims, as expenditure rates in the United Kingdom in 1996 were 43%, compared to 49% in Germany and 55% in France. It is

difficult to maintain that these high expenditure rates seriously penalize the European economy: throughout the period, it always had trade surpluses, while the United States was constantly in a trade deficit. The explanation is simple: expenditures do not simply mean taxes for companies; they are not manacles on their feet; they also contribute to creating an overall framework and the social and cultural capital that a modern economy needs.

#### **4. Toward a New Global Distribution of Wealth**

There was a time in the not too distant past when thinkers who supported the Third World argued, by applying Marx's pauperization thesis on a global scale, that rich countries would inevitably exploit the poor ones. Rich countries would get richer and poor countries would become poorer. Our data suggests that since 1980, the opposite has happened. The poorer countries are catching up. But can they do so without making their populations suffer? And which sectors of the population will suffer more than others? We often carefully sidestep these questions. Before the referendum on the European constitutional treaty in the spring of 2005, two symbols were greatly debated: the Polish plumber and the Chinese textile worker. Both were symbols of globalization: the first represented the inability of French workers to compete with service-sector workers from the EU's new members, and the second signified their inability to compete with Chinese manufacturers.

This debate proves that the citizens of developed countries are not yet fully conscious of the fact that the arrival of new competitors who offer cheaper labor and the threat of a "race to the bottom" in terms of social protection (at least as far as unskilled labor goes) is really just one facet of a larger problem: the need to share the limited resources of the biosphere equitably with all the peoples of the planet.

Imagine breaking down the world into about twenty regions. To ensure equity between them, an extraordinary effort of redistribution, benefiting the historically less developed regions, would be needed. “Equity” means that each region should have access to a comparable level of well-being (though this does not have to mean equal per capita GNP).

This redistribution involves knowledge, know-how, and access to natural resources. Intuitively, we know that we one day will have to share. In practice, however, we put off making out concrete plans for doing so—as if we could simply sit back and watch others develop, without worrying about how it affects us.

Is there a model that proves that genuine redistribution can really help undeveloped economies to catch up? The take-off of Asia’s “little dragons,” particularly Japan, at the end of the postwar boom, frightened the French. Through the early eighties, talk of a Japanese invasion was common. Remember the stir caused by the lifting of customs duties on Japanese video machines in Poitiers in 1982! The most significant contemporary examples are the entry of ten new members in the European Union and the emergence of China and India. In these cases, redistribution is occurring on a grand scale, involving not merely millions, but billions of people.

Let us first consider the European example. Until now, European integration has, entirely to its credit, been a vast European-wide leveling process. It helped the new arrivals of the 1970s (particularly Spain, Portugal, and Greece) catch up in remarkable ways, both economically and institutionally. Part of what made this process so successful was the opportunity of producing goods in these new countries that would reach a European market. This required the new members to mobilize their institutional, technical, and commercial abilities; but it also involved a transfer of certain industries (in agriculture, the service sector, and manufacturing) from the original members to the newer ones. In doing so, the new members had to make the most of their

comparative advantages, notably cheaper labor costs. Because Europe's economy was growing and it had a strong position on the global market, the catching-up process was relatively painless.

The arrival in 2004 of ten new EU members occurred in more difficult circumstances: Europe's overall growth was not as strong, while Poland, Hungary, the Czech Republic, and the Baltic states were caught between the hammer of high Western European productivity and the anvil of China's industrial push. Their "invasion" potential, which is seriously mitigated by their small populations and weak demographic trends, is similar to that of the Germanic peoples of the fourth and fifth centuries, who were themselves being pushed west by Central Asian invaders. The integration and "catching-up" of these new members is thus likely to be less smooth than that of previous entrants.

When one considers the massive global redistribution now underway, it becomes clear that it is pure fantasy to believe that other regions of the world can catch up with us without affecting our way of life. Such a dream might be conceivable if the planet had infinite resources; but it doesn't. It is thus hypocritical to support development in the name of equity while at the same time denouncing the negative consequences for rich countries.

What are some concrete ways to help these regions catch up? Three approaches are possible.

First, companies from the EU's earlier members could set up production units in the new members as well as other world regions. This approach involves direct European foreign investment. To make the costs easier to stomach, these investments could be justified on the grounds that they promote foreign consumption rather than reimportation, that they encourage their beneficiaries to buy goods from us, and that they allow our own economies to specialize in high-end goods. This may all be true; but the fact remains, such investments must be profitable,

and this necessarily implies imports, which means the outsourcing of European companies to cheaper labor markets.

A second approach involves setting up non-European companies in the new EU members and other world regions. They would compete with European companies on the international as well as the European market. On the surface, this would not require outsourcing. But in practice, the sectors in which such companies were created would suffer, forcing them to close plants and lay off workers.

A third approach involves helping the new EU members and other world regions, through public technical aid programs, to create, relying solely on local actors, the conditions required to achieve the goals of the two other approaches. These conditions include technical know-how and the mobilization of capital and commercial networks. Yet while this approach looks good on paper, it overlooks the fact that both technical and organizational know-how cannot be acquired as completely and as quickly as it could be through the direct intervention of companies who already have it and who have a business interest in sharing it. It is also a little hypocritical: we already know how difficult debates about development aid can be, and how laborious it is to persuade developed countries to devote 0.7% of their GNP to development aid. These difficulties prove that we are only prepared to offer the leftovers of our own comfort, and only on the condition that our well-being is preserved. We do not seriously entertain the possibility of sharing our wealth with the rest of the world.

In all three of the scenarios mentioned above, given the time that the learning process requires and the absence of the historical preconditions for an efficient economy (with the notable exception of education), whether in the new European countries or in regions beyond

Europe, only salary differences, i.e., differences in standards of living, will spur new economic activities in Europe and the world and contribute to a global redistribution of wealth.

But redistribution requires sacrifice, and equitable sacrifice. Yet the sacrifices required by a redistribution of wealth and resources are not distributed equitably. They are concentrated on the most vulnerable segments of the population.

To be more precise: we can distinguish between economic activities that are tied to the production of generic goods and services and those that are tied to a specific territory. In a country like France, where the tertiary sector is dominant, most regions depend on redistribution. Primary income often comes from outside the region—in the form of retirement pensions, Social Security payouts, indemnities, or civil service checks. When it is spent, this income then pays for a vast commercial and service sector.

But it is the first kind of economic activity, which produces generic goods and services, that is most directly affected by global redistribution. Within this category, the least skilled occupations are hit the hardest. Some people reject the idea of distribution by making the argument (which contains a kernel of truth) once used against Malthus: work and wealth are not like cakes, finite goods that one can cut up into pieces, but unquantifiable goods that are limited only by human ingenuity. I agree. That said, at least a few quantifiable goods do exist: notably, the biosphere and the capacity of ecosystems to regenerate. Today, the biosphere plays the role that the earth and its agricultural capacities once played in Malthus' thinking, at a time when the contributions that technological progress could make to their productivity were not clear. The only way to get out of this dilemma is to uncouple the development of activities aimed at increasing human well-being from the consumption of natural resources. In the second part of this book, we will explore how this could be done.

Let us now turn to developing countries that are trying to catch up. If you have been to Shanghai and witnessed its dynamism, its symbols of modernity, its fantastic ability to organize and mobilize knowledge, you probably felt butterflies in your stomach as you wondered what kind of “comparative advantages” we shall still have in the near future.

Contrary to what some in Europe pretend to believe, the benefits of China’s new prosperity are not restricted to a handful of billionaires, unscrupulous financial and industrial adventurers, and clever exploiters of abundant cheap labor. The book *State of the World 2004: Special Focus: The Consumer Society* gives us an excellent picture of the gradual expansion of production in developing countries: “Private consumption expenditures [...] topped \$20 trillion in 2000, up from 4.8 trillion in 1960 (in 1995 dollars). Some of this fourfold increase occurred because of population growth [...], but much of it is due to advancing prosperity in many parts of the globe [...]. The 12 percent of the world living in North America and Western Europe account for 60 percent of global private consumer spending, while the one third living in South Asia and sub-Saharan Africa account for only 3.2 percent [...]. Although most consumer spending occurs in the wealthier regions of the world, the number of consumers is spread a bit more evenly between industrial and developing regions [...]. [We see the emergence of a] global ‘consumer class.’ These people have incomes over \$7000 of purchasing power parity [...], which is roughly the level of the official poverty line in Western Europe. The global consumer class itself ranges widely in levels of wealth, but members are typically users of televisions, telephones, and the Internet, along with the culture and ideas that these products transmit. This global consumer class totals some 1.7 billion people—more than a quarter of the world.”<sup>34</sup> In the chart accompanying this text, we see that East Asia and the Pacific represent 32.9% of the world’s population and

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<sup>34</sup> Gary Gardner, Erik Assadourian, and Radhika Sarin, “The State of Consumption Today,” in *State of the World 2004: A Worldwatch Institute Report on Progress Toward a Sustainable Society* (New York: W. W. Norton, 2004), 5-6.

21.4% of private consumption expenditures. This trend towards global enrichment is affecting the entire world, with the notable exception of sub-Saharan Africa, which represents 11% of the world's population but only 1.2% of private consumption expenditures.

One only has to visit China to see how well the Kuznets curve applies to its current development stage. When in 2004 I participated in an online forum organized by the Chinese newspaper *The People's Daily*, I was asked the following question: "Do the poor in Europe also hate the rich?" In other words, given the glaring disparity between the rich and the poor, the ability of the Chinese to offer prosperity to their entire population has become a life-or-death question. This is true throughout the world. An African friend of mine once told me: "If things continue like this, in Nairobi, in a few years, the poor half of the population will be paid to protect the property of the wealthy half." Whoever has observed the ghettos of the rich in southern metropolises will understand immediately what my friend was talking about. The problem is that, unlike what happened in the countries that underwent the first industrial revolution in the nineteenth century, the eruption of consumption in developing societies is occurring violently and in the open. The World Watch Institute notes: "In 2002, 1.12 billion households, about three quarters of the world's people, owned at least one television set. Watching TV has become a leading form of leisure." This means that the consumption habits of an enormous number of consumers is placed before the eyes of everyone else.

But our economy, as it is currently conceived, celebrates possessions and privileges material goods that avidly consume non-renewable resources. The car is the most glaring example. Every time I go to Africa, I am always amazed by the importance that the tiny middle class attaches to cars. And it is interesting that in India in 2007, Tata began marketing a cheap car that was within the means of the emerging consumer class. In China, car sales are



exploding—and could, in the long run, make the country itself explode. These consumption patterns are unviable and non-generalizable. The need to “rethink the meaning of well-being” is a question that can no longer simply be the concern of affluent “bourgeois bohemians” who, having grown weary of material goods, can now afford to tend to their souls. It is a question that calls into question our understanding of modernity, with its emphasis on material production, measured in terms of trade, thus parting ways with the tradition of earlier civilizations, in which the purpose of human life was considered to be social and spiritual rather than material. It is the rules of the game of production and trade themselves that must be called into question. “Can I have five more minutes, Mr. Executioner?”—this is all that we seem capable of saying when confronted with this challenge. Give us another decade or two to nurse the illusion that it is alright to continue to buy four-wheel drives, vacation in the Caribbean, and indulge in other ordinary follies, because we will continue to produce wonderful technology and to manage financial capital that generates income, from which the “others” will be excluded. Nonsense!

One of the most recent versions of this utopia is the European Union’s “Lisbon Strategy.” It can be summed up as follows: “The EU will be the number one knowledge-based economy.” One only has to visit China’s major universities and to see the unimaginable investments that Chinese families pour into education to realize that the European strategy is condemned to failure.

The United States is under the sway of the same illusion. In 2005,<sup>35</sup> 30% of all corporate profits were made by the financial sector, which implies both that most of world savings continued to be managed by American banks and that the financial sector was inventing ever more sophisticated products, the real value added of which remains to be established, in order to justify high management and transaction costs. What happened next is well known: the reckless

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<sup>35</sup> Bureau of Economic Analysis, United States Department of Commerce.

gambling on subprime mortgages, the mitigation of the risks tied to these financial products, a general climate of irresponsibility, and, ultimately, the collapse of the entire system.<sup>36</sup>

While President Sarkozy, in November 2007, was selling Airbus technology to the Chinese—i.e., selling the “family jewels” to reduce the trade deficit—the United States, despite the rise of the dollar, continued to live on borrowed cash through the “export credit” that is the Chinese trade surplus. And it was Chinese sovereign wealth funds that came to the rescue of American banks threatened by the subprime crisis.

Does anyone seriously believe that the Western way of life can be financed in a sustainable way by patent royalties? At the very least, such intellectual property would need to be capable of being privatized, and privatization of this kind would have to be considered legitimate—both of which are very doubtful indeed.

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<sup>36</sup> Note from December 2008: In this case, the financial crisis led to an economic crisis, which will soon lead to a social crisis. The lax monetary policy pursued by former Federal Reserve chairman Alan Greenspan managed to postpone the crisis for several years. This made the fall even harder.

### Chapter 3: Economics on Trial

The preceding chapter, by analyzing the debate between proponents and opponents of globalization, and by showing how it is in many ways a replay of the old debate between capitalists and communists, might leave one with the impression that this controversy alone sums up our present dilemmas. This is not the case.

Over fifty years ago, Bertrand de Jouvenel observed that economic theory had become the basis for all public policy. This indicates how essential systems of production and exchange have become to modern society. This development would have greatly amused ancient philosophers, who typically belonged to privileged classes: in their eyes, the nobility of a life had nothing to do with production. They had peasants, servants, and slaves to tend to all their needs and desires.<sup>37</sup>

The economy's dominant place in our society is the reason why legions of experts, academics, and practitioners study it so meticulously.

Before we consider the dominant place of economics in contemporary society, we must first consider a prefatory question: why is that, over the past two centuries, economic science has changed so little?

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<sup>37</sup> See, notably, the comic remarks of Seneca and his philosophical friends on frugality, in Lucien Jerphagnon, *Histoire de la Rome antique, les armes et les mots*, Tallandier, 1987.

## **1. Ideologies Last a Long Time**

Ever since Newton, after being hit on the head by an apple, grasped the laws of universal gravitation over two and half centuries ago, the natural sciences have undergone several successive upheavals. Newton himself proved that by itself, “gravity’s invisible hand” governed both heavenly bodies and falling apples. One would almost like to be in Newton’s place: not to be hit by an apple, but to experience the precise moment at which one of the world’s secrets is revealed.

How fascinated economists, historians, and philosophers have been by the idea that a few simple laws could govern the complex phenomena of the natural world. It is understandable, both historically and philosophically, that the idea of the “invisible hand of the market” followed close on the heels of the discovery of gravity’s laws. These laws allowed Lagrange to show that by knowing the position and velocity of a physical system at a precise moment, one could know everything that would happen subsequently. Historical determinism, in its liberal as much as in its Marxist form, is a consequence of mechanical philosophy.

But where natural sciences over the past two and a half centuries have undergone several breathtaking paradigm shifts (from the discovery of the gravity to the breaking of the genetic code, via the theory of relativity), the basic framework for understanding the market economy has been surprisingly static. Is this because the phenomena that it seeks to explain are also static? Obviously not. While the planets calmly continued their orbit around the sun, untroubled over the past two hundred and fifty years by nothing other than an occasional rocket, our society, and particularly our modes of production and distribution, have changed in every respect: from the nature of the actors to the products, the technical systems, the production processes, the distribution systems, and the scale on which trade occurs. Nothing about contemporary reality

resembles the world in which Adam Smith formulated his economic principles and Ricardo developed his general equilibrium theory.

Could it be that this contrast between stability on the one hand and movement on the other proves economic theory's excellence? Could it be that it continues to make sense of a changing world? I seriously doubt it. The stability of economics' hypotheses illustrates the inertia of conceptual and institutional constraints, compared to the speed with which science, technology, and economic realities change. This inertia suggests that economics resembles governance (conceptually as well as institutionally) more than experimental science. Before we leave behind the beaten trail, perhaps we should first seek the reasons for the longevity of economic doctrines, by looking beyond the discipline itself. Because they are similar phenomena, I will consider economics from the same standpoint that I previously discussed governance.

It is often said that economic theory's basic hypotheses do not stand up to analysis; that information available to economic actors is imperfect and asymmetrical; that markets do not guarantee stability; that individuals do not behave like independent, rational automatons; that producers are far from being atomized; that the development of material wealth cannot be society's primary goal, nor can this goal be separated from others; that well-being cannot be measured in terms of the development of commercial exchange; and so on. But nothing changes: undisturbed, we continue to teach the same theory.

One of the main reasons we do so is that doctrines become reified as they entrench themselves in particular sectors of society. These sectors, in turn, have a tendency to perpetuate themselves. Economics, like the organization of the state, becomes self-referential. I completely respect all the empirical studies that economists have done; but the fact remains, economics is

not a science, but an ideology, in the sense in which Jean Bottéro used the term when speaking of ancient near-eastern religions—“an explanatory system that makes sense of the world in an intelligible way, the falseness of which cannot be proven”<sup>38</sup>—or in the way that Paul Ricoeur defined it, as “a system that gives meaning to individual and collective life.” In my book *L'État au cœur*, I showed that theories of governance are also ideologies. When an ideology is shared, it becomes one of the foundations upon which a community is established. Economics is, moreover, an ideology in the sense in which Dominique Bourg uses the term in *Le nouvel âge de l'écologie*: it is a set of glasses through which we see the world. I would add: it also consists of the instruments that we use to measure the world. In his book *Vers une écologie industrielle*, Suren Erkman makes an interesting observation about companies. He shows that because of increasingly comprehensive accounting systems, companies are able to keep precise record of everything to which value can be attached—everything, that is, that can be converted into money. Yet at the same time, they are completely ignorant of materials that flow through their production process that cannot be subsumed into the category of saleable goods. Bourg makes the stunning claim that the average company is completely unaware of what becomes of 30% of the materials flowing through it once they flow out.

Economic doctrines produce actors with distinct ways of living and distinct interests. Consequently, they become self-fulfilling. One only has to consider the suspicion in which executives are held when they lack enthusiasm for the idea that companies must increase their market share or when they are not consumed by a passion for professional advancement and monetary reward. Such attitudes are, surprisingly, no longer than unusual. These days, in France, upper management organizations (like the *Mouvement des cadres chrétiens*, the Christian Executives Movement) tend to emphasize the importance of finding a proper balance between

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<sup>38</sup> Jean Bottéro et al., *L'Orient ancien et nous*, Albin Michel, 1996.

professional and private life. A few years ago, a business school teacher told me that she could divide her twenty-year old students into three groups. The “hungry wolves” (about one out of five) who throw themselves eagerly into the struggle for existence; they are born without scruples and will die without scruples (for what is a soul without scruples?). Another fifth, at the opposite end of the spectrum, rejected the doctrine they were force-fed; they were searching for alternatives. The remaining three-fifths—those lacking both a voracious appetite and a critical attitude—soon found themselves inducted into the system; yet in forty years, it was safe to say that they would wind up on a therapist’s couch. I don’t know if my friend could back this classification up with numbers. However, these three categories and their relative weight match up quite well with my sense of French public opinion (with which I am most familiar). Today’s youth, it is fascinating to note, is drawn to disciplines like development economics, for which there are few career opportunities but which speak to their idealism. The self-fulfilling character of economic doctrine thus seems to be vanishing. Yet this does not make change easy. You can’t change a pivotal actor simply by saying: “knock, knock, guess who’s here!”

So what exactly are the obstacles to renewing our intellectual paradigms? (These remarks will pave the way for what I will say later about strategies for change.)

First, the champions of the neoliberal revolution (from the Mont-Pélerin group to the Chicago School, by way of neoconservatives and think-tanks like the American Enterprise Institute) have embraced a remarkably coherent strategy. They have also shown an impressive ability to perpetuate it. Consequently, they have won (as Arnaud Blin has put it) “the war of ideas” against an academic and political elite that had previously embraced a largely social-democratic outlook. Sixto Roxas has analyzed the World Bank’s astute policy of recruiting top

executives from a wide array of countries. This meant that, when they later needed them, they had interlocutors in these countries who embraced its ways of thinking.

The second obstacle consists in confusing political will with alternative paradigms. If one misunderstands one's situation, however laudable one's intentions might be, one hasn't proposed an alternative. One has simply made a mistake.

Two examples from François Mitterrand's presidency are worth mentioning. The first was his attempt, at the beginning of his first term, to stimulate the economy and employment according to well-established Keynesian methods, without realizing that the world had changed greatly. The French economy was so exposed to the outside world that the only appreciable effect of stimulating demand was to increase imports and thus to increase the commercial deficit.

The second example comes from 1991. Mitterrand replaced Prime Minister Michel Rocard with Edith Cresson, claiming that he wanted to "strengthen the French economy" a year before the Single European Act went into effect. Again, one does not need a degree in economics to presume that an entire industrial system could not be transformed in a year.

We need, consequently, to be far more attentive to technological revolutions, beginning with that of information. It has introduced economic and social models that are stunningly innovative. For instance, Wikipedia, the online encyclopedia cooperative, is unthinkable from the standpoint of traditional economic concepts.

Furthermore, the ability to download creative works at virtually no cost, and thus to duplicate them, radically and irreversibly changes the status of these works, and thus the ways in which they are created and financed. One does not need a crystal ball to understand that sooner or later, new actors, new approaches, and new rules will arise from these technological revolutions. Free software communities are already the vanguard of these trends. Still, the first



reaction will be conservative. Vast economic interests do not take threats to their very existence lying down. They will cling to patents and intellectual property laws, denouncing as outlaws those who would steal the creativity and sweat of others.

Compared to intellectual coherence and social cohesion of the group that led the neoliberal revolution, their critics often seem scattered, divided into different sects: the Neokeynesians, the Neomarxists, the regulators, and so on. Naturally, all of them contribute something. Fred Lee has had the great idea of trying to unite them through his newsletter.<sup>39</sup> But like their neoclassical opponents, the “heterodox,” as they call themselves, do not take as their starting point the world that is being born, but the dogmas that define their own particular worldviews. Even so, it is useful to take stock of the movements that challenge the prevailing orthodoxy.

The neoliberal revolution of the 1960s and 70s was born in universities, particularly in the United States, before spreading, in the late 70s and early 80s, to politics. At the time, neoliberals confronted an academic mindset still largely dominated by Keynes, social democracy, and the idea that markets could be humanized through state intervention. Marxist ideas were also in the air; I have already spoken of their sway over many intellectuals of my generation.

The proponents of what was not yet called the “neoliberal revolution” understood that the struggle for intellectual domination was key, and that it was essential to win over universities as well as the minds of young economists.

For many years to come we will debate whether the primary cause for communism’s collapse was Margaret Thatcher, Ronald Reagan, John Paul II, or the implosion of a sclerotic

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<sup>39</sup> See the *Heterodox Economics Newsletter*, coordinated by Fred Lee, at [www.heterodoxnews.com](http://www.heterodoxnews.com).

system.<sup>40</sup> We will also discuss whether China's decision to transition to a market economy was caused by the Cultural Revolution, the failure of the Great Leap Forward, generational renewal, or modernity's appeal. But what is certain is that these changes have occurred with spectacular swiftness. This, incidentally, should make us modest in the pursuit of our own goals. Whatever the causes may be, it is clear that from an intellectual and political standpoint, between 1975 and 1990 (i.e., roughly between the fall of Saigon and the fall of the Berlin Wall), one side beat the other.

This victory will, in my view, be short-lived. For reasons that have already been explained—notably, the incompatibility between our development model and the biosphere's equilibrium—dominant economic results in too many technological, social, and political dead-ends for it not to collapse in turn, particularly if it is impervious to change. The important thing is that this collapse must not unleash an ecological, social, and political catastrophe.

In the mean time, we must note that the winners have not been modest in victory. In the teaching of economics, it is hardly an exaggeration to say that a “groupthink” reigns unchallenged

In Peking in 1999, I participated in a dialogue between foreign guests and several Chinese authorities. We discussed the emergence of a “third sector” (i.e., the social economy) in China—that is, of the need, once that the Chinese state had decided to focus its efforts on economic development and political control, to social questions over to non-state organizations. In one of the workshops, I heard the phrase “market economy” used repeatedly to describe what was happening in China. With barely feigned innocence, I asked the participants: “You speak of the market economy, but in the West, when speaking of China, we usually use the expression—

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<sup>40</sup> See Andrei Gratchev's insightful book, *La chute du Kremlin*, Hachette, 1994.

the one, if I'm not mistaken, used by Chinese authorities themselves—‘socialist market economy.’” They laughed heartily and candidly.

This intellectual arrogance, typical of victors, could only remain unchallenged for so long—especially since, as we have seen, it has many blind spots. The intellectual protest movements in the United States, the United Kingdom, and France in the late 1990s and early 2000s were generally student demonstrations, which professors often joined.<sup>41</sup> These movements were directed against the premises of economic education as well as against the excessive use of mathematical models in explaining economic realities and in defining the scope of initial hypotheses.

I will draw on the work of Aurore Lalucq to describe the intellectual tendencies, the primary objections, and the alternative frameworks that have emerged from this healthy reaction. I am fully aware how subjective this selection is. Each of the books I cite has a bibliography that is intimidating for a non-specialist. Still, they all refer to about thirty “founding fathers” and they all gravitate around a handful of themes. I have identified five, which I will briefly present.

## **2. Dogma Isn’t Scientific**

Of the numerous French-language books on the topic, there are several noteworthy works of synthesis and criticism, including those by Jacques Sapir, Jacques Généreux, Marc Lavoie, and Ronan Le Vally. They in turn often cite Albert Hirschman, Joseph Stiglitz, and thinkers like Max Weber.

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<sup>41</sup> The most noteworthy include : the student movement to reform the teaching of economics : Autisme-Économie ([autisme-economie.org](http://autisme-economie.org)) ; the petition of the students of Notre Dame University (<http://openeconomics.blogspot.com>); the Post-Autistic Economics Network ([www.paecon.net](http://www.paecon.net)) ; the International Confederation of Associations for Pluralism in Economics (ICAPE, [www.icape.org](http://www.icape.org)); the Heterodox Economics Newsletter ([www.heterodoxnews.com](http://www.heterodoxnews.com)); and the Association for Heterodox Economics (AE, [www.heterodox.com](http://www.heterodox.com)).

Their basic thesis is that prevailing economic thought, despite its apparent sophistication, is ultimately founded on the general equilibrium theory, first proposed over a century ago by Léon Walras, before being reformulated in the fifties by Kenneth Arrow and Gérard Debreu.<sup>42</sup>

As its name suggests, this theory rests on the claim that individuals make rational choices independently of one another, and that the law of supply and demand leads (as long as the state does not make the mistake of interfering with this divine mission) to an equilibrated, and even optimal, situation.

It is against these claims that the authors who interest us have declared war. Their first criticism is that this ahistorical vision of economics is oblivious to social reality. Theoretically speaking, it is simply not true that supply and demand lead to equilibrium. The classic model is founded on the patently false hypothesis that actors have access to all the information they need. But the reality of uncertain and asymmetrical information radically modifies the model's conclusions. Finally, the hypothesis of a "*homo economicus*" who makes consistent choices in complete independence from his peers—the hypothesis that justifies isolating the economic realm from society as a whole—is refuted by many experimental studies.

In short, to the extent that classical theory purports to represent reality, it fails. It is prescriptive, not descriptive. It is a doctrine, not a science.

The second criticism of classical economics is that its methods are not scientific.

This criticism builds on the first, by accusing the proponents of "groupthink" of touting their scientific credentials even as they make serious methodological blunders. Classical economics tries to shield itself from social and political criticism by presenting its hypotheses as "natural laws," comparable to the laws of physics. It rejects the more modest ambition of

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<sup>42</sup> Jacques Sapir offers a detailed description in *Les trous noirs de la science économique ; essai sur l'impossibilité de penser le temps et l'argent*, Seuil, 2003.

describing how human societies function in specific times and places. These critics accuse economists of preferring mathematical formalization to a patient and humble observation of reality, in order to stake their discipline's exaggerated claim to being a science.

As far as the role of mathematics is concerned, I must say, speaking as a mathematician, that the whole debate is very confused. Three different claims are made: that mathematics promotes a dogmatic and formalistic way of thinking that is contradicted by reality; that since a model's parameters can be defined in ways that will ensure that empirical evidence matches the theory, econometric analysis is unreliable; that because mathematics is too difficult for ordinary mortals to understand, its use by economists should be seen as nothing more than effort to establish their own prestige. To go on to claim that modeling can only serve the interest of dominant ways of thinking strikes me, however, as unreasonable. True, the arrogance of some experts and their use of numbers to bolster their arguments can be irritating. Albert Hirschman once described the shortcomings of economic experts as follows:

- Economic experts have a blind faith in their science. Every economic problem necessarily has a solution.
- The more socially and politically painful the policies embraced by the economic expert, the greater his ability to command his audience's respect.
- The expert's greatest ambition is to bestow upon the nations he counsels the ideal institutions that he has dreamed up—because he was unable to sell them in his own country.

Regrettably, we often encounter this caricature in real life.

The third criticism is that economics has gradually become self-referential. Consequently, corporations have become so as well. Jacques Sapir notes that Oskar Morgenstern, as early as

1935, proved that the general equilibrium theory is based on circular reasoning.<sup>43</sup> René Passet, in his book *The Economy and the Living (L'économie et le vivant)*, compares the reproduction of human society with that of the biosphere.<sup>44</sup> He observes that whereas in nature, different subsystems belong to the whole and each subsystem is subordinated to the ends pursued by the whole, economics believes itself to be an end unto itself. John Kenneth Galbraith analyzed the semantic mirror game involved in replacing the word “capitalism,” which at least refers to specific people (i.e., capitalists), with the insipid term “market economy,” which endorses the myth of a complete separation between the private and public sectors and between economics and politics.<sup>45</sup>

Corporations embrace these self-referential illusions. Philippe DeWoot, one of Belgium’s great management specialists in management and an expert on corporate life, illustrates this point in a striking manner.<sup>46</sup> For at least two centuries, he argues, the growth of the economy and of corporations has entailed a substitution of ends for means. He lambasts the dominant development model for having “no end other than efficiency and its dynamic.” He shows that there is a connection between the increasing autonomy of corporations and that of technological science: “techno-scientific progress,” he argues, “cannot be an end in itself or a savior of the last resort, for it must be constrained by specific ends.” The substitution of ends for means is endorsed by the reigning ideology in a number of ways: it presents the market economy as the only system capable of efficiently creating wealth; it sees free trade as the origin and basis of growth; it asserts that the market is the only efficient mechanism for allocating resources; it sees profit as the sole criteria for performance; it maintains that financial orthodoxy is the system’s guarantee; and,

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<sup>43</sup> Jacques Sapir, *op. cit.*

<sup>44</sup> René Passet, *L'économie et le vivant*, Economica, 1996.

<sup>45</sup> John Kenneth Galbraith, *Les mensonges de l'économie, vérité pour notre temps*, Grasset, 2004.

<sup>46</sup> Philippe De Woot, *Responsabilités sociales de l'entreprise. Faut-il enchaîner Prométhée ?*, Economica, 2005.

finally, it believes that market economy brings democracy, freedom, and peace to the whole world. Ends and means have thus been inverted. Market fundamentalism has triumphed. This simplistic, exaggeratedly optimistic, conservative, intolerant, and arrogant groupthink has led corporations to focus exclusively on making money, which is incompatible both with corporate responsibility and with the true identity of the modern corporation.

Those who counter that the point of corporations is to generate wealth, and that guaranteeing social and environmental well-being is the responsibility of other authorities, overlook the affluence, the tensions, the contradictions, and the compromises that define the modern corporation.

The fourth criticism, which relates to the previous one, is a consequence of the claim that economic activity can be separated from the social sciences and from social choice. The PEKEA network has analyzed the claim that economics can be isolated.<sup>47</sup> Jacques Généreux has studied the loss of social choice.<sup>48</sup> The economy, he reminds us, is primarily political. True, economics, when isolated from political choices, boils down to a discourse about efficiency. The mechanisms for the optimal allocation of resources, to which economics is often reduced, can apply to any domain and to any end. Unfortunately, when applied to a single end—be it economic growth or profit maximization—one ends up making people passively acquiesce to the very end that efficiency is supposed to achieve.

Economics can only be political, to the extent that production, distribution, exchange, and consumption systems must be placed in the service of socially determined goals. Inversely, of course, politics must strive to be efficient—to find, that is, the best ways to allocate scarce resources and to coordinate the actions of various actors to ensure that they achieve their goals.

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<sup>47</sup> See <http://www.pekea-fr.org>.

<sup>48</sup> J. Généreux, *Les vraies lois de l'économie*, Seuil, 2001.

The fifth criticism lies on a different plane: the difficulties economic theory faces in accounting for the dynamics unique to technological systems, despite the central role they play in the development of modern production systems. François Caron, for instance, emphasizes the interrelatedness of different technological developments and the relationship between the development of technologies and the development of actors.<sup>49</sup> For example, the development of the factory system in the nineteenth century was inseparable from the invention of the steam engine and the railroads.

The analysis of technological systems often serves as an interesting bridge between the development of society and the development of economic systems. François Caron highlights another essential point: the particularities of technological history. This history, far from being deterministic, is shaped by successive bifurcations. Benjamin Coriat shows how the development of technological systems gives increasing importance to immaterial over than material production factors.

Technological systems bring us to the sixth criticism: classical economics' neglect of time as an important economic factor. The absence of a historical perspective is, according to economists like Marc Lavoie, Jacques Sapir and Robert Boyer, one of the dominant model's greatest oversights. To claim that economic laws are unchanging and to overlook the particularity of historical periods is not only willfully ignorant, but evidence of a stubborn need to find universal solutions when only situated and contextual ones are possible. One must, on the contrary, insist on each society's unique path, and on the particular models of social and economic regulation that are invented in the process.

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<sup>49</sup> F. Caron, "De l'innovation sociale au changement technique," in *Problèmes économiques*, n° 2738, nov. 2001.



Theorists of complexity go even further in their critique of the assumptions of classical economics. They not only question the truthfulness of its postulates, but challenge their usefulness. Classical theory was directly inspired by eighteenth-century mechanics and its emphasis on the equilibrium of closed systems, which have little in common with human society. Computer simulations have made it possible to study the dynamics of non-linear systems and to test the macroscopic consequences of various hypotheses about human behavior. Theorists of complexity are particularly interested in the idea of a system's "emergent properties": that is, how mechanisms which appear very simple at the level of a single unit (e.g., a bird's flight) can account for realities that are very complex at the level of the system as a whole.

A book like Eric Beinhocker's *The Origin of Wealth* offers a persuasive account of this way of thinking, in which the modeling of ecosystems becomes a more promising framework than the mechanical analyses of classical economic theory.<sup>50</sup>

### **3. Economics Involves Observing Real Actors**

Many economists reject the idea that the relationship between supply and demand is the result of the market's mechanical adjustments. They note the discrepancy between this idea, inherited from the eighteenth century, and realities of modern society—in particular, the important regulatory role of corporations and the state.

Production activities are clearly not, for the most part, coordinated by the market, but rather by corporations. That they also have to compete with one another and respond to consumer demand is another matter. The nature and development of this living collective entity that is the corporation is an essential feature of the "real" economy. John Kenneth Galbraith explained years ago that the modern world is built on the corporation's centralized organization,

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<sup>50</sup> E. D. Beinhocker, *The Origin of Wealth*, Harvard Business School Press, 2007.

and specifically its technically-organized bureaucracy. We must try to understand its internal logic: the way its interests converge and diverge with those its employees, on the one hand, and those of its shareholders, on the other. In reality, the ideological distinction between “free-market” and “planned” economies no longer holds water. Modern corporations are gigantic planning and organizing machines. Moreover, corporate competitiveness is extremely dependent on external factors, such as educational infrastructure, the health system, transportation networks, and so on, all of which are managed by governmental authorities. This implies complex relationships and alliances between these two organizing poles. Alfred Chandler is led, for this reason, to speak of the “visible hand of management” rather than the “invisible hand of the market.”<sup>51</sup>

The story of the development of this system of production, distribution, and exchange is far from over. Armand Hatchuel describes the historical evolution of the firm as a series of institutional innovations.<sup>52</sup> He observes that the modern corporation is undergoing a new metamorphosis, comparable to the birth of the “company” during the Italian Renaissance, as it becomes a rather flexible space in which individual initiatives are pooled. He speaks, when describing the modern corporation, of “neo-companies,” arguing that they must find a way to surmount the tension between flexible organizational models and the stable structures that facilitate the cooperation that makes innovation (which is essential to the modern corporation) possible.

In *Competing in a Flat World*, Victor K. Fung and William K. Fung, two Hong Kong entrepreneurs, go even further. They describe themselves as the conductors of an entire orchestra

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<sup>51</sup> A. D. Chandler, *The Visible Hand: the Managerial Revolution in American business*, Harvard University Press, 1977.

<sup>52</sup> See *La lettre de la régulation*, n° 47, January 2004.

of industry chains. At times (depending on their clients' requests), they find themselves managing far-flung international networks of subcontractors. To fill an order from Walmart, they may have to manage spinning operations in Pakistan, weavers in China, zipper-makers in Japan, and assembly plants in Bangladesh.<sup>53</sup> More than ever, corporations must submit to the twofold demands for stability and adaptability, or (put differently) order and innovation. Alain Fayol says that the modern entrepreneur has two faces: the organizer and the innovator.<sup>54</sup>

The common denominator of these ideas is less the laws of economics than concrete institutional arrangements, relationships between actors, and internal structures.

This emphasis on relationships between actors naturally leads us to the role of governmental authorities, even in countries where the state's role is minimal. Economic globalization has modified the state's function, and, more generally, the rules governing relationships between actors. Yet in modifying them, it has not eliminated them. On this basis, many authors challenge the pretention of the liberal state to have renounced all significant economic intervention. They particularly have in mind the United States, the country that has voiced the most vigorous and fundamentalist defense of free-market ideas—despite the fact that the American government plays an essential role in creating the conditions that allows its businesses to be competitive.

Neil Fligstein discusses the so-called “miracle” of Silicon Valley—which, in reality, is not miraculous in the least.<sup>55</sup> Public investments, notably in the defense industry, were made there prior to the Second World War, and, between 1945 and 1965, the federal government and the state of California worked together to invest in the transistor and computer sectors. The state

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<sup>53</sup> Victor K. Fung, William K. Fung, and Yoram Wind, *Competing in a Flat World*, Wharton School Publishing, 2007.

<sup>54</sup> Alain Fayol, “L'entrepreneur entre ordre et désordre,” in *Alternatives économiques* n° 65, 2005.

<sup>55</sup> Neil Fligstein, “Le mythe du marché : le cas américain,” in *Problèmes économiques*, n° 2738, November 2001.

thus played a significant role in the development of this industrial center. The number of engineers working there owes much to the military industry's presence. Many of the products it developed began as orders from the Pentagon. Remember that the Internet itself was initially developed as a way of reducing a number of problems in the military's chain of command. If corporations depend on scientists for innovation, scientists, in turn, depend (at least in certain situations) on public funding.

Benjamin Coriat and Fabienne Orsi have investigated the conditions that allowed the United States to acquire a comparative advantage in the computer and genetic industries.<sup>56</sup> They argue that American governments created two conditions essential for growth, one relating to intellectual property rights, the other to financial market access. As early as 1980, the Bayh-Dole Act allowed the results of publicly-financed research to be patented and conceded to private firms with exclusive licenses. This was a major break with the hitherto generally accepted idea that scientific research was a public good protected by the legislative branch. The second revolution, which followed from the first, concerned access to financial markets: a change in the rules of the National Association of Securities Dealers allowed debtor companies to enter the stock market, providing that they owned "intangible" capital—that is, intellectual property rights. The Nasdaq exchange was one consequence.

While states continue to assume an active role, their regulative role has nonetheless changed considerably thanks to economic globalization. Philippe Norel, the author of a history of global trade, emphasizes (with many others) that the growing discrepancy between the

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<sup>56</sup> "Droit de propriété intellectuelle, marchés financiers et innovations. Une configuration soutenable ?," in *La lettre de la régulation*, n° 45, juillet 2003.

globalized economic sphere in which major corporations operate and the political sphere, which remains essentially national, has weakened traditional state regulations.<sup>57</sup>

Other forms of regulations are emerging, as Corinne Gendron and Alain Lapointe have noted.<sup>58</sup> They see a new division of power between the state, corporations, and NGO networks, particularly in the realm of social and environmental assessments of the social responsibility of corporations.

Thus the redistribution of regulative functions is one of the modern global economy's major trends. It makes possible the distinction between the legality and legitimacy of particular assessments. Thus a citizens' network or an NGO, if it has a reputation for independence, can make assessments that are more credible and legitimate, from the public standpoint, than those of the state, which may be suspected of being dependent on corporations, or than a corporation's own self-evaluation of its own social and environmental impact.

#### **4. Not All Goods and Services Are For Sale**

The redistribution and redefinition of regulatory powers is only one of the many ways in which institutional arrangements are currently be transformed. In the process, the crude opposition between "public" and "private" disappears. This development is very apparent in Europe, particularly in relation to public services. Pierre Bauby, the president of the Services of General Interest committee at the European Center of Employers and Enterprises providing Public Services, explains this trend nicely.<sup>59</sup> In Europe, he claims, a new concept has emerged, that of services of general interest. These services are defined by the nature and purpose of the

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<sup>57</sup> Philippe Norel, *L'invention du marché, une histoire économique de la mondialisation*, Seuil, 2004.

<sup>58</sup> Corinne Gendron, Alain Lapointe, "École des sciences de gestion," in *Les cahiers de la chaire économie et humanisme* (Université du Québec à Montréal), n° 20, October 2004.

<sup>59</sup> Pierre Bauby, *Reconstruire l'action publique*, Syros/La Découverte, 1998.

service provided, rather than by the juridical character (i.e., whether it is public or private) of the providing institution. They illustrate very effectively that efficiency of means (liberalism's pride) need not imply indifference to ends. Philippe Hugon has studied the various theoretical schools that address the question of "global public goods."<sup>60</sup> They are, he emphasizes, historical constructs arising from collective decisions. Public goods raise two distinct issues. The first relates to the nature of "shared" goods. They have several features that distinguish them from traditional commercial products: the principles of non-competition, non-exclusion, externality, and natural monopoly. The second consideration relates to the good's destination. Public goods are those to which, consistent with each society's own values, all citizens are guaranteed equal access. The association "Public Goods on a Global Scale, created and directed by the late François-Xavier Vershave, defines "public good on a global scale" as "things to which individuals and peoples have rights, which are produced and distributed in free and equitable conditions [...], regardless of the company's [juridical] status." For these goods, "universal human and environmental rights are the norm, legitimate international institutions the guarantor, democracy the permanent aspiration, and social movements the origin."

The idea that there are goods which by their nature and purpose must be distinguished from ordinary commercial products and that these goods, in every society, are historical constructs, often resulting from social conflict, paves the way for my upcoming discussion of the different categories of goods and services.

## **5. The Biosphere: Economics' Blind Spot**

A final critical current addresses the most precious public good: the biosphere. Various authors, the oldest and best known being Georgescu Roegen, have emphasized that human

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<sup>60</sup> Philippe Hugon, *La lettre de la régulation*, n° 48, avril 2004.

activity participates in the biosphere's broader processes and that the first economic laws were those regulating the biosphere itself. Much of Roegen's thought builds on the second law of thermodynamics, according to which entropy (i.e., disorder) increases in any closed system. This led him to consider various human activities from the standpoint of ever-increasing entropy.

Similarly, René Passet draws four lessons from human activity's participation in the biosphere.<sup>61</sup> First, human activity participates in the ecosystem's processes. Second, these processes help us understand how various human activities relate to one another. Third, the dynamics of living systems, notably their need to reproduce and to adapt, has often inspired human thought. Finally, the example of living systems proves that it is absurd to conceive of the economy as a self-referential subsystem, cut off from the goals of the society at large.

## **6. The True Path to Development**

How does one get from an agricultural society to one where the tangible and intangible capital required for a modern economy have been created; where the infrastructure needed to establish institutional arrangements exist; where the labor force has been trained; and where the institutional, intellectual, and moral conditions for efficient economic governance obtain?

An abundant literature, much of it from the fifties and sixties, has explored these processes. Many fashionable ideas from this era, including state-based strategies and import substitution policies, have revealed themselves to be self-defeating in practice, however appealing they might appear on paper. Activities shielded from the winds of international competition became, over time, monopolies offering guaranteed income. The neoliberal wave briefly replaced these strategies. Its excesses were the mirror image of its predecessor. According to the new dogma, success required slashing the bloated state's parasitic taxes, cashing in on

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<sup>61</sup> René Passet *L'économie et le vivant*, *op. cit.*

such competitive advantages as low wages and natural resources, thus creating a niche for oneself in the global economy (gradually expanding its scope and increasing the sophistication of the goods and services in which one was competitive).

The so-called “natural resources curse” proves that the real problem is not whether a country has resources, but whether its resources are “virtuous”: that is, resources which will allow it to build the human and institutional structure that a modern economy requires and which will complement rather than replace a country’s own economic efforts. In analyzing local development processes, some experts distinguish between “cold money,” which does not come from the community itself, nor does it represent its own efforts, and “hot money,” which, even if it is enriched by foreign contributions, is the fruit of a community’s own initiative. The former tends to be wasted and transformed into monopolistic income, while the latter is valued. I remember how in the eighties, in the early days of our Foundation, we helped develop a financial support tool to assist micro-companies in the Guinean forest for an NGO, the CIDR. The program was partially successful, but only after initial failure: the first treasurer took off with the piggy bank. He was caught, and asked to reimburse it. He felt ashamed—not because he had tried to embezzle it, but because “everyone knows that you never pay back white people’s money!” This story illustrates the deep similarity between natural resources, which cost little to extract, resources that originate in loans that forced many countries into debt, and foreign aid, however generous it might be: all three are forms of cold money. More often than not it is embezzled, directly or indirectly, by small bands in powerful positions; worse still, by making it easy to get rich, it makes genuine development initiatives fruitless.

In the fifties and sixties, the only examples that development theorists could draw on were the history of the industrial revolution in Europe and in the English-speaking world (the



United States, Canada, Australia, New Zealand), as well as in the Soviet bloc and Japan. These analyses addressed the economy as it then existed, which remained dominated by the creation of tangible production capital.

The last forty years offer us an extraordinary array of examples from which lessons can be drawn. With so many stories of success and failure, are we not in a position to derive general laws from them? Apparently not, since ideological confrontations are as alive as ever.

Why despite all this experience, are we not able to agree on a few reasonably certain principles? There are two related answers.

The first explanation, which we encountered when discussing the debate over globalization's supporters, is epistemological. We have at our disposal many stories, usually concerning particular nations, told by macroeconomists interested in large aggregates. These stories, however, are written by a large number of actors. Some of them are very local, describing how communities launched their own initiatives. At the same time, each story is shaped by the international context: for example, by the way in which certain countries simultaneously benefited and suffered from the Cold War. In each story, so many structural factors (like culture and traditions of governance) blend in with contextual factors that it is nearly impossible to identify general trends. The situation is so complex that it is easy to find *ad hoc* explanations that match up with the facts, yet which are no more plausible than their alternatives. Only an empirical, almost clinical approach to telling these stories can identify recurring tendencies.

The second explanation, which we also touched on in relation to globalization, concerns the construction of data and the ideology informing the institutions that record it. Institutions produce information not on the basis of a comprehensive understanding of society, but according

to their own operational needs. Taken as a whole, this data does not produce a comprehensive vision of society. Do we have data allowing us to make comparisons on an international scale? Academic studies aside, there are two main sources of information, both produced by international institutions. The first are various UN agencies, notably the United Nations Development Program (UNDP) and the United Nations Conference on Trade and Development (UNCTAD). They compile “macroscopic” data: i.e., they adopt a national perspective, and consist of comparative analyses of development policies. But these intergovernmental institutions are censored in their own ways. In 1994, I was involved in a brief audit of the World Health Organization. I realized that while such an institution is well placed to undertake comparative analyses of health policies, it is was poorly equipped to draw lessons from the vast range of experiences to which it had access. I proposed that it implement a systematic device for collecting and trading experiences. But we had to give up: the WHO’s agents could not risk speaking ill of members states—even if what was said was truthful. As for NGOs, they would appear to have freedom in relation to states. But are the more reliable sources for understanding development? Unfortunately not. Their discourses about themselves must be celebratory: if they want to continue to benefit from the public’s generosity, they must highlight their successes, not their failures. Even more importantly, their finances depend on the implementation of projects. They are oriented towards action. Institutions that are prepared to finance the demanding, time-consuming, and potentially corrosive intellectual labor of stockpiling experience are few and far between.

The other information source, one that is in a good position to gather and analyze empirical data resulting from forty years of involvement in economic development’s trials and tribulations, is the World Bank. In the NGO milieu, it is fashionable to denounce the World

Bank's work. Much of this criticism is excessive. Its professionalism, notably in the way that it compiles and analyzes the steps each country takes towards development, exceeds that of most states. Yet the World Bank is still subject to incredible bias, resulting from its institutional constraints, its power, and its ideology. Because its primary role is to make loans, the World Bank sees agents through the prism of disbursement. Its analysis is necessarily centered on the terms of the loan and the recipient's capacity to repay it. This bias is a severe limitation, as development requires coherence and time to succeed. The World Bank's second institutional constraint is that it deals with states. However, the relationship between states and real development processes, which are often driven by local initiatives, is complex. Local dynamics often lie outside major institutions' field of vision. In addition to these two constraints, there is the additional problem of power dissymmetry. The Koran says: "The hand that gives is above the hand that takes." In development aid policy, dissymmetry is a radical obstacle that must be learned and understood. It promotes dogmatism. During a roundtable discussion in Brussels in May 2005, the Senegalese Alioune Sall observed that "Africa holds the record for bad advice received per inhabitant." This sums up well the way in which international experts, protected by professional amnesia, promote passing fads as absolute certainties, even though these change every five or ten years. Rather than investigate, they prop up their preconceived convictions with facts and numbers. Facts cease to be a way of approaching reality, becoming instead a stock of arguments for defending a thesis. Instead of these vast dogmatic frescoes, we need a detailed, clinical analysis of different paths to development.

For these reasons, I am very sympathetic to the conclusions endorsed by Pierre Judet in his book *The Third World is Not at a Dead End!* (*Le tiers-monde n'est pas dans l'impasse!*).<sup>62</sup>

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<sup>62</sup> Pierre Judet, *Le tiers-monde n'est pas dans l'impasse*, Éd. Charles Léopold Mayer, 2005.

His approach is, in the first place, intellectually honest. It involves a genuine desire to understand, to be surprised, and to establish one's convictions on the basis of observed facts rather than those that support one's own preconceived ideas. Such an attitude should be so normal that it barely deserves mention. Yet it is so unusual that it must be. Such an approach requires long-standing familiarity with many different societies. This is not very common. But it is the only way not to lose sight of the connections between anecdotes collected on the ground and data generated on a national or international level, and thus to reconstruct the underlying reality of development: a series of individual stories with deep historical roots. The history of each nation, each province, and of each locality is unique. How enriched we all are by the lessons drawn from thousands of histories!

What, in a nutshell, is Judet saying? That the key to success is found in the desire of a people and an elite to build a project and to envision a future, and, in its relationship with others, to subtly combine detachment and openness. Detachment is required to build the future. Openness is needed to avert sclerosis and monopolies.

Sometimes, as I mentioned when discussing globalizing, we catch the culprits red-handed. This is what happened to the World Bank when its president, Paul Wolfowitz, tried to do too much. Before being fired (for corruption), two claims became his mantra: fighting corruption means good governance; good governance means economic growth. Knowing in advance the conclusions that they needed to reach—the very definition of scientific fraud—it became incumbent on the World Bank's services to build indicators of good governance, almost all of which were based on American data stemming from neoconservative circles. Yet despite their efforts, they had a difficult time establishing correlations. In 2007, two French researchers, Nicolas Meisel of the French Development Agency and Jacques Ould Aoudia of the French

finance ministry reconsidered the data to find a more plausible explanatory framework. They show that that what really distinguishes different countries from one another when it comes to development is that ability of states to coordinate their various agents and to reassure them about the future.<sup>63</sup> For my part, I had demonstrated, in the case of China's spectacular development, the role played by the desire to avenge history and by the "compactness" of the governing elites (to borrow Judet's apt term).<sup>64</sup>

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<sup>63</sup> Nicolas Meisel and Jacques Ould Aoudia, "La bonne gouvernance est-elle une bonne stratégie de développement," working paper no. 58, AFD, January 2008.

<sup>64</sup> Pierre Calame, "Le contre-exemple asiatique," in *La gouvernance démocratique*, ed. Séverine Bellina, Hervé Magro and Violaine de Villemeur, Éditions Karthala, 2008.

## **Chapter 4: Emerging Alternatives**

In the preceding chapter, I discussed doctrinal debates between economists and the growing trend towards rejecting economic dogma when it gets in the way of understanding reality. In this chapter, I will consider alternatives to the prevailing economic dogma that take contemporary social reality and new ways of thinking and acting as their starting point. I will identify four strands of thought, each of which is related to new practices. In each of these trends, we can see economics beginning to merge with governance, thus setting the stage for the issues that I will consider shortly.

The four strands are: the economics of well-being; economics for a responsible, plural, and united world; the economics of reducing materials and energy dependence; and the intersection between economics and territorial ecology.

### **1. From an Accumulative Economy to an Economy of Happiness**

What kind of wealth do we produce? According to what logic? And for what purpose?

Since the seventies, many studies have called attention to how poorly gross national product reflects the degree of development a society has reached. Studies seeking to measure “gross happiness” have flourished. The success of Patrick Viveret’s book, *Reconsidering Wealth* (*Reconsidérer la richesse*), indicates the extent of contemporary interest in the topic. Let us not forget that the U.S. Declaration of Independence claims that the “pursuit of happiness” is a right shared by all.

In the twentieth century, the efforts of communist regimes to impose happiness on their citizens “from above” inhibited for a long time all serious reflection about the social conditions of well-being. Today, the desire for material possessions, far from being, as it was for fifteenth-century moralists, the least dangerous of passions, is fast becoming humanity’s most dangerous need. Hence the vigorous new thinking on well-being, which the degradation of natural and cultural capital makes all the more understandable. Economics measures profits, but forgets to measure losses.

In their essay Gary Gardner and Erik Assadourian say the following about well-being (drawing in particular on Canadian examples): “In shorthand form, the term essentially denotes a high quality of life in which daily activities unfold more deliberately and with less stress. Societies focused on well-being involve more interaction with family, friends, and neighbors, a more direct experience of nature, and more attention to finding fulfillment and creative expression than in accumulating goods. They emphasize lifestyles that avoid abusing your own health, other people, or the natural world. In short, they yield a deeper sense of satisfaction with life than many people report experiencing today.”<sup>65</sup> They add: “The disconnection between money and happiness in wealthy countries is perhaps most clearly illustrated when growth in income in industrial countries is plotted against levels of happiness. In the United States, for example, the average person’s income more than doubled between 1957 and 2002, yet the share of people reporting themselves to be ‘very happy’ over that period remained static.”<sup>66</sup> This point of view obviously needs to be nuanced, as they readily admit: “Not surprisingly, the relationship between wealth and life satisfaction is different in poor countries. There, income and well-being are indeed coupled, probably because more of a poor person’s income is used to meet basic

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<sup>65</sup> Gary Gardner and Erik Assadourian, “Rethinking the Good Life,” in *State of the World 2004: A Worldwatch Institute Report on Progress Toward a Sustainable Society* (New York: W. W. Norton, 2004), 165.

<sup>66</sup> *Ibid.*, 165-166.

needs [...]. Findings from the World Values Survey, a set of surveys of life satisfaction in more than 65 countries conducted between 1990 and 2000, indicate that income and happiness track well until about \$13,000 of annual income per person (in 1995 purchasing power parity). After that, additional income appears to yield only modest additions in self-reported happiness.”<sup>67</sup>

In the United Kingdom, this way of thinking was popularized by the “Well-being Manifesto” published by the New Economic Foundation, an independent think tank founded in 1986, which has taken an active role in proposing new economic paradigms.<sup>68</sup> The manifesto’s starting point is an observation about the United States very similar to Gardner’s and Assadourian’s. Studies prove that satisfaction with life stagnated for thirty years, between 1973 and 2002, even as gross national product practically doubled. We now have many comparative studies on well-being. The manifesto states: “For most of human history, trying to understand what led to well-being was the stuff of philosophy or poetry. Recently, however, some psychologists and sociologists have finally turned away from studying illness and dysfunctionality and begun to study well-being, happiness, and flourishing. The results have profound implications for individuals and for government.” The manifesto seeks to answer the following question: “what would politics look like if promoting people’s well-being was one of government’s main aims?” In developed countries, the conventional answer to this question relied heavily on economic growth: “The logic to this is that by increasing national and individual incomes, people have more choices about how they should lead their lives. Psychologists, however, have thrown a large spanner in the works. The relationship between economic prosperity and both individual and social well-being in developed countries seems to have broken down.” Later, they note: “US research [Lykken, 1999 and Schkade, 2003] suggests

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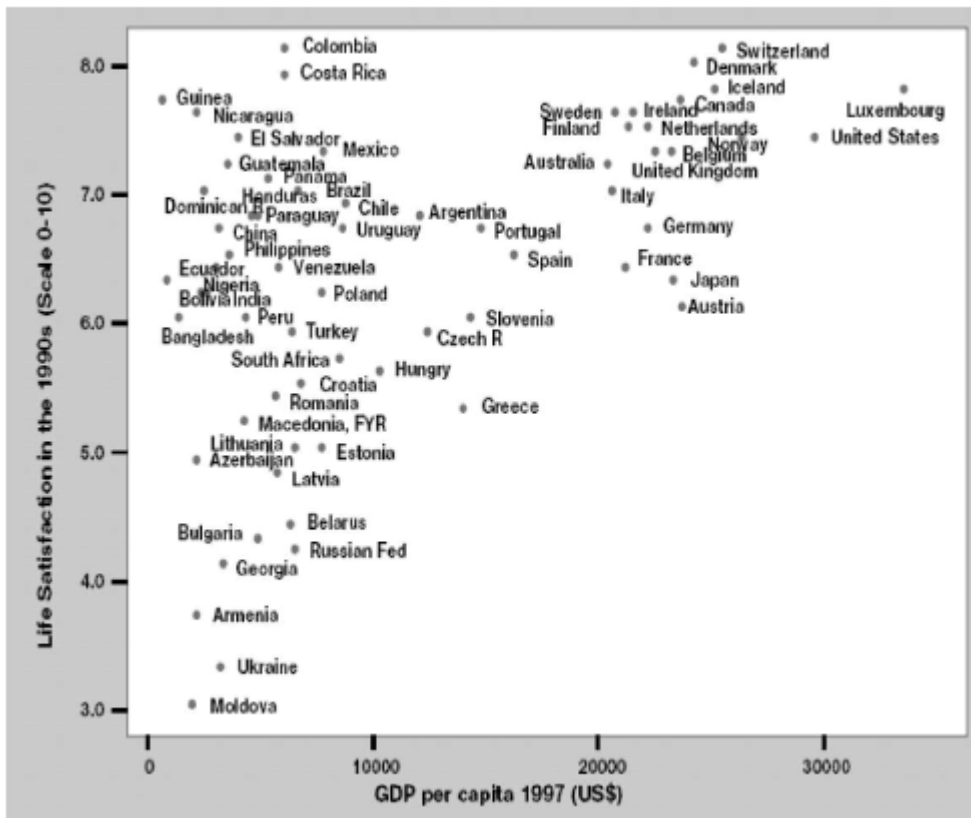
<sup>67</sup> Ibid., 166.

<sup>68</sup> The New Economics Foundation, 2004. <http://www.neweconomics.org/gen>.



that there are three main influences.” They distinguish three types of factors: a “predisposition to happiness,” resulting both from genetics and education, which accounts for 50% of the results; “life circumstances,” which includes factors ranging from weather to income, and which accounts for a mere 10% of our well-being; and, finally, “intentional activities,” which, as I see it, could be described as the compatibility between what we do and what we believe; it includes sociability and the pleasures we take in life. This latter factor accounts for about 40% of the results. We could debate the way these measures were taken, as well as the culturally relative character of such studies. But the trends they identify are so overwhelming that they can scarcely be challenged. They have the great merit of reminding us that economics and the production of material resources must not be self-referential. The ends of these activities lie beyond them.

Below is a stunning chart from 2003 by Veen Hoven (from the NEF’s manifesto). It is based on the world happiness database. The X axis shows per capita income in each country. The Y axis indicates a happiness index (I am not sure on what it is based).



The results are quite remarkable. They qualify and complete Gardner's and Assadourian's observations on the relationship between income and wealth in developing countries. Two axes are apparent: the first consists of countries where per capital GNP and happiness are correlated; the second ranks the vast number of poorer countries according to the happiness index. For comparable income levels, Moldova and the Ukraine are the least happy, while Colombia (despite its civil wars), Costa Rica, and Guinea are the most. These results, in any event, provide serious food for economic thought.

## **2. Towards a Responsible, Plural, and United Economy**

I will now turn to the work of an international network that was born in the late nineties as an offshoot of the Alliance for a Responsible, Plural, and United World,<sup>69</sup> and which has been supported by the Charles Léopold Mayer Foundation for Human Progress. This network, which consists of several hundred activists and academics, became in 2008 the Alliance for a Responsible, Plural, and United Economy (or ALOE, according to its French acronym). Its name indicates its purpose: the network seeks not so much to advance economics as a discipline as to promote, in the realms of production, exchange, and consumption, new practices based on the principles of responsibility and solidarity. The effects of our actions as producers, businessmen, or consumers on our neighbors, on our communities, on people located at the other end of a production chain (who may be thousands of miles away), and on our immediate environment matter to us. We must not trust the market's "invisible hand" to ensure that actions driven by our selfish needs alone will miraculously bring about the happiness of all.

The ALOE does not advocate replacing the existing production and exchange system or the market economy with a comprehensive alternative. Rather, it pleads for a plural economy, in which the traditional economy coexists with a social and solidarity economy, based on different principles and resting on different organizational structures. Thanks to this attitude, the ALOE, known until 2007 as the Alliance's "Workgroup on Solidarity Socio-Economy,"<sup>70</sup> played a significant role in connecting different movements promoting a "social and solidarity economy" but that tended to focus on their own pet projects: microcredit, the social responsibility of economic actors, social money, local exchange systems, fair trade, responsible tourism, or women's role in the economy. These networks, moreover, are tied to what in France is known as

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<sup>69</sup> See [www.alliance21.org](http://www.alliance21.org).

<sup>70</sup> See [www.socioeco.org/fr](http://www.socioeco.org/fr)

*l'économie solidaire* (solidarity economy), the principle theorist of which is Jean-Louis Laville, who studies the various economic activities and services that are based on the principles of self-organization and reciprocity.<sup>71</sup>

In this way, following a trend similar to one seen in Latin America, the ALOE makes no distinction between the nineteenth-century idea of “social economy” and that of “solidarity economy,” which, though of more recent vintage, seeks to revive “social economy’s” founding principles.

My intention is not to justify the ALOE’s work, but rather to identify those elements of its thought that could contribute to a renewal of economic thought. It is worth noting, incidentally, that this movement speaks of “socio-economics” rather than “economics,” in order to emphasize that economic behavior is not a separate realm of social life.

Social economy arose out of the major nineteenth-century cooperative and mutualist movements. These movements gave birth not only to productive cooperatives, but more importantly to mutual companies in the realms of banking, insurance, and health care.

In France, Europe, and even the world, the role played by the social economy, which creates economic institutions owned by their beneficiaries (like mutual health insurance companies) or by their employees (like production cooperatives), is by no means marginal. In Europe, according to the Center for Young Leaders and Actors of the Social Economy (*Centre des jeunes dirigeants et acteurs de l'économie sociale* [CJDES]), it employs 8-10% of the workforce. Far from receding, it is on the rise, as a result of the increasing role played by

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<sup>71</sup> In *Le Dictionnaire de l'autre économie*, edited by Jean-Louis Laville and Antonio David Cattani (Desclée de Brouwer, 2005), one finds a thorough overview of this movement’s key ideas.

associations in banking, insurance, and retail. Production cooperatives, after declining, are now experiencing modest growth.

Examples of social economy, moreover, can be found throughout the world, especially in health and agriculture. It is spreading to banking and insurance. In the European Union (to use figures from when there will still fifteen members, as current ones are lacking), 260 million people were affected by the social economy, notably through their insurance policies often without realizing it. The fact that people do not realize it is significant. A consequence of social economy's success is that its ties to the ideology and activism that created it have weakened, particularly in the larger mutual companies. When we choose a mutual company to insure our car, we do not consciously endorse the idea of solidarity or opt to participate in the company's management. In service industries like banking, major mutual companies compete with other banks. Competition has more bearing on the quality of the services they offer than ideology. Even in Quebec, where the Desjardins saving banks are a genuine social phenomenon, central both to Quebec's identity and to the quiet revolution of the sixties, former president Claude Beland concedes that it is difficult to preserve the activist spirit, which is rooted in social Christianity, both among employees, whose primary goal is to participate in the consumerism made possible by Quebec's prosperity, and among clients. The same difficulties are found in French agricultural cooperatives. They are the offspring of a venerable cooperative tradition; yet these days, their livelihood depends on selling fertilizer and phytosanitary products. Over the years, they have at times become one of agribusiness's staunchest allies. This is a lesson we must retain as we begin to think about the institutional frameworks of the future: the broader context in which actors operate is more decisive than their juridical status. Even so, we are clearly

witnessing a desire to renew, in the early twenty-first century, a movement whose time seemed to have come and gone.

In November 2004, after seven years' existence, the workgroup's members met in the Paris suburbs to take stock of what they had learned over the years and to consider future prospects. They noted, in the first place, that the goals of solidarity economics and the critique of classical economics (discussed in the previous chapter) overlapped considerably. Solidarity economics rejects the tendency of economic activity and thought to become self-referential. An appreciation of solidarity economics cannot restrict itself to how many jobs it creates and how much wealth it produces. The economy, from solidarity economics' perspective, must simultaneously pursue several goals. The cost or quality of a good or service are only two factors among others in determining their success. Others include social relations occurring as a result of the exchange, the recognition of other fundamental needs besides strictly material ones, and the personal development of both producers and clients. One of solidarity economics' most notable traits is that it often eliminates the barrier between producers and clients.

Take the example of microcredit. Since winning the Nobel Prize, Muhammed Yunus of the Grameen Bank has become an international star. Several years ago, the World Bank organized a "microcredit summit." The broader public, in short, has recently discovered him. Institutions that first heard of him only a few years ago see him as a brilliant mind that has found a miraculous solution to the problem of poverty. We all love fairy tales, and Yunus' story seems to be one. Why financial institutions find his story appealing is no mystery: microcredit draws the poor into market relations. In this way, the free market and classical economics can prove that they are capable of promoting social cohesion.

Yet it is not hard to see that this fairy tale has little to do with reality. First, Muhammed Yunus, whom I have known and admired for twenty years, did not invent microcredit; rather, he brilliantly theorized an important movement with deep historical roots. Furthermore, there is no miracle cure. When I had to evaluate European cooperation in the program in 1998-1999, I found African villages where several enthusiastic organizations (one must always beware of beginners' zeal) were offering the inhabitants competing microcredit schemes to develop economic activities for which there was no market. Microcredit's impact on job creation is far more modest than is commonly acknowledged. It is often the result of nearly intolerable social pressure. The workgroup thus organized an international committee that brought together the major microcredit banks to help them establish a set of socially responsible performance criteria which they called "solidarity finance," as an alternative to traditional evaluation methods that focus on strictly financial criteria such as repayment rates. It has become apparent that microcredit's most positive effect is to build social capital, to establish networks between its beneficiaries, and to give them self-confidence. Social capital and self-confidence, as we know, are essential preconditions for genuine economic development. Bonds are more important than goods: this principle is essential to solidarity economics, in which actors produce and distribute goods while also pursuing socially-oriented goals such as communal bonds, integration, and cohesion. That said, to hark back to what Philippe de Woot said about companies, the proponents of social economy reject the way that classical economics has traditionally inverted ends and means, with consumption as society's primary goal and production companies' sole *raison d'être*. Instead, they believe that human development should be economic activity's primary purpose. They refuse to cut off economic thinking from other social sciences, whose lessons they are eager to learn. They are particularly close to the thinking of the New Economic Foundation and other

groups that are finding new relevance in the old saying that money isn't everything and which distinguish between well-being and degrees of material progress.

The ability to conceive of actors capable of pursuing several goals simultaneously is as essential to oeconomics as to governance. I doubt if solidarity economics can at present offer enduring and comprehensive solutions to these problems, but it at least has the merit of recognizing their importance. Today's corporations know that the most significant production factor is the ability of their employees to pool their knowledge and know-how together to achieve shared goals. They find themselves in exactly the opposite position of old production-oriented corporations, which achieved economies of scale through the rationalization of material production processes. This is why these new companies are often called "post-Fordist." They only have a distant relationship with the world portrayed by Charlie Chaplin of *Modern Times*. The way they act and talk about themselves is not dramatically different from the proponents of solidarity economics: they emphasize the multiple functionalities of production and work activities, which must also engender relationships and pleasure; the de-compartmentalization of tasks; the division of responsibilities; and the reconciliation of professional and familial roles.

It is said that Google, a symbol of this new style of company, receives millions of unsolicited job applications. This entrepreneurial attitude is consistent with the socio-cultural trends we have been discussing.<sup>72</sup> High-tech companies and the promoters of solidarity economics rarely develop in the same sector. Even so, several common denominators can be identified, and similar institutional arrangements are emerging as classical economics is subject to critique and technological change forces companies to rethink their structure. Rapprochement will take time, and it may be that neither side wants it. Clearly, proponents of solidarity economics are more likely to speak of shared goals, while high-tech companies are more willing

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<sup>72</sup> Voir, par exemple, les travaux d'Alain de Vulpian, fondateur de la Cofremca.



to acknowledge the primacy of their economic goals, even if they are perfectly willing acknowledge the importance of other goals, whether out of ethical obligation or enlightened self-interest. In any case, multi-purpose institutional arrangements are now on the cutting edge of economics.

For the time being, solidarity economics has yet to prove that it can propose a full-fledged economic alternative. It sees itself, rather, as the dominant model's outspoken fellow-traveler. Still, by criticizing the assumptions of classical economics and by proving by example that other approaches are possible, it suggests several fruitful paths. The development of local currencies makes it possible to challenge the way in which the money system operates. Fair trade raises the issue of product traceability and forces us to consider chains of added value (why, how, and under what conditions can the term "fair trade" be applied to a product?). We are thus reminded that buying is a social activity, rather than the unproblematic acquisition of an anonymous product.

Solidarity economics forces us to consider how we measure economic activity's impact on society's well-being, social capital, and the environment. There can be no accountability without measures.

It also highlights the variety of ways in which the economy can be regulated. Everything cannot be reduced to norms decreed and monitored by the state—witness the emergence of fair trade labels, organic agriculture, sustainable usage of forests, and responsible fishing.

More generally, solidarity economics rests on governance's most important principles: legitimacy; the coordination of scales of production and exchange; partnership; and the primacy of territorial approaches. Thank to solidarity economics, new ideas have begun to take root.

### 3. When Economics Becomes Frugal

I remember a conversation that as a child I once had with my mother. She was a widow, and not particularly rich, but she saved her money and prepared for the future. She made a small investment for my sister and me. She explained that she bought us bonds from (if I remember correctly) what was then called the Energy Fund (the Caisse de l'énergie), which was an investment fund for developing energy production. I can still hear her say: "It is a safe investment since the more society develops, the more people need energy." This statement is a perfectly reflection of the economic mindset of the fifties: society's development was closely linked to the growth of consumption and energy, and, more broadly, to the growth in consumption of raw materials. Don't forget that this was the era when the Northern countries were still dominant and when we still associated Japan with cheap but poorly-made products.

As I recall, we had little consciousness of the implications of the consequence of increasing well-being and rising material consumption for the environment and access to energy resources.

A major shift occurred in the early 1970s. At almost exactly the same moment, the first international conference met in Stockholm in 1972, while the Rome Club published its famous report, "Limits to Growth" (which was mistranslated into French as *Halte à la croissance*, or "Growth Must Stop"), written by a group of experts under the direction of professor Dennis Meadows. The Stockholm conference addressed the impact of human activities on the biosphere's metabolism. The Meadows Report addressed the limits of raw material resources. It also clearly declared that, if human societies are to continue to develop, it is absolutely essential that the rate at which we consume natural resources must be decreased.

The two oil crises of 1974 and 1980 proceeded to vindicate the Meadows Report. The oil producing countries, which had gradually organized themselves into the OPEC cartel in order to strengthen their negotiating position, demonstrated their power in relation to industrialized countries by brutally raising prices. The times when the United States could overthrow Mossadegh's government in Iran because he dared challenge the major oil companies seem like long ago...

The oil crises of 1974 and 1980 did not, in absolute terms, represent a significant increase in energy prices, as they had been constantly falling for forty years. The day when Rockefeller's Standard Oil delivered barrels of oil to the Allies during the First World War had come and gone. Oil has become our economy's lifeblood. The pipeline has replaced the gold galleon, shipped in from New Spain to spur inflation during the European Renaissance. Pipeline saboteurs (as seen in the Tintin book *The Land of Black Gold*) have replaced the pirates of old. The Western world became conscious not of energy's scarcity—it still seemed inexhaustible from a human standpoint—but of the strategic implications of the concentration of fossil fuels in a limited number of world regions. The oil crises and the sudden increase in gas prices were also upheavals in the global economy: oil producing countries were awash in petrodollars, with which banks made often risky investments in developing countries. The debt crisis later ensued.

Whether because of the scarcity of raw materials, or because of the West's growing dependence on a small number of OPEC countries, the question of the relationship between economic growth in developed countries and the consumption of energy and raw materials has become firmly lodged in our conscience. This is the time period when the efforts of "decoupling" were made—that is, the need of separating the growth in well-being from greater consumption of raw materials and fossil fuels. This led in France, for instance, to the creations of organizations

like the French Agency for Energy Control (l'Agence française pour la maîtrise de l'énergie, AFME) and to the first teams of technical specialists with expertise on these matters (which, for us, are still new). As a local engineer for the French Equipment ministry, I participated in the implementation, during the seventies, of the first systematic policies aimed at improving residential heating efficiency. This led, notably, to a reconsideration of residential heating contracts: until then, operators were paid based on their profits—in other words, on energy consumption. These contracts thus promoted “criminal activity”! The more energy (fossil fuel, in this case) is consumed, the more these business owners profited.

I mention these details because they illustrate the kind of economic changes that must occur: the creation of new actors and institutions; the development of new forms of expertise; new contractual connections between actors made possible by the idea of institutional arrangements; and the reform of public policies, notably the elimination of subsidies that artificially reduce energy costs.<sup>73</sup>

Except during the interludes of the two oil crises, the predicted price increase in prices of raw materials did not occur in the seventies and the early eighties. The modernization of industrial production processes and the first serious efforts in recycling made western industries more efficient in their use of raw materials. During this time, for instance, electric steel mills were built that could recycle the steel of old cars and discarded industrial equipment. For the first time, raw material consumption became decoupled from GNP growth.

By the early eighties, the problem associated with raw material consumption was no longer depletion (since raw materials became neither more scarce nor more expensive), but environmental danger. Ecological associations publicized the problem of the ozone hole,

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<sup>73</sup> Matthieu Calame's book *La tourmente alimentaire* (“Food Turmoil”) (Éd. Charles Léopold Mayer, 2008) offers excellent examples of the impact on agriculture of artificial reductions in the cost of production factors.

reflecting the cumulative impact of human activities in the outer atmosphere. Its symbolic value was indeed very great: it demonstrated that ordinary human actions like having a refrigerator or using aerosol cans, each harmless in itself, could affect the outer atmosphere's chemical composition, particularly in the North and South poles—that is, in practically the only places on the planet where there is almost no human activity.

The fifties—the era of the Cold War—were dominated by the prospect of a nuclear war between the West and the East bloc. People were haunted by the threat of a “nuclear winter,” a sudden modification of the earth's climate following a series of atomic explosions. Humanity thus became conscious of its ability to destroy itself. In the eighties, however, people became conscious of humanity's capacity for self-destruction not through a suicidal war, but through the pursuit, from year to year, of economic development, which had been presumed to be socially beneficial. This was a massive shock to humanity's self-conception, though it had been anticipated a decade earlier by the first manned satellites, which showed the Earth to be a “little blue planet.” We rediscovered the fragility of mother earth, the Pachamama of Andean religions, humanity's matrix, which we were busy killing off without even realizing it.

This was the psychological atmosphere in which the greenhouse effect, i.e., the consequences of human activity of climatic balances, became a major social and political question, even though it had (like the ozone hole) been known about (if only as a scientific curiosity) for some time. In 1989, the American magazine *Time* made the Earth its “Man of the Year.” Meanwhile, the Bruntland report, “Our Common Future,” introduced the concept of “sustainable development,” which, after the 1992 Earth Summit, became, if not the basis of new economic policies, part of the obligatory rhetoric of corporations and governments.

It has now been over twenty years since the Bruntland report was published. Real progress towards sustainable development has been desperately slow, like a little skiff rowing upstream. The gulf between economic thought and dynamics, on the one hand, and new frameworks premised on sustainability, on the other, remains vast. A few visionaries, like Georgescu Roegen (mentioned above) have tried to lay out the theoretical basis for an economy in which achieving equilibrium between human activity and the biosphere would be the primary concern. Others have developed theories of reversing growth. They remain marginal.

There are two trends, however, which are more practical than theoretical, which have begun to enter the mainstream: energy efficiency and the economics of material flows. Let us consider them in turn.

The first trend, energy efficiency, is well represented in France by a movement of researchers and activists named Global Chance, led by Benjamin Dessus. Global Chance is obviously a pun, referring to “global change,” i.e., “climate change.” But the pun is used to make another simple point: the problem of fossil fuel and climate change, far from being a catastrophe that signs the death warrant of our development model, represents an historical opportunity (a “chance”) to re-conceive human activities, particularly production, exchange, and consumption, on a more intelligent basis.

For a long time, energy-related problems were primarily the concern of the energy industry and energy service providers. The major concerns were the development of new technologies, particularly nuclear technology, and financing the heavy infrastructure needed for energy extraction and distribution. There was less glory and money in the more modest task of making energy more efficient.

The Dalai-Lama once said that we must learn to “make an epic of peace,” as it is war that is always seen as glorious and sophisticated. A similar insight could be applied to energy.

Even today, in France, expertise on energy issues generally belongs to energy producers and distributors. From the standpoint of new economic paradigms, the fact that only one actor—the energy industry—has the know-how is very significant. Bernard Laponche, who worked for EDF (France’s state electricity company) for many years, has pointed out that very often energy companies, because of their size and need for technological competence, are virtually the only employer in a position to hire specialists. Consequently, the very idea of an “independent expert” must be viewed with caution. Someone who specializes in this area has no career opportunities if he or she does not work for the producers—and producers can remember. There is thus an enormous dissymmetry between the information and means available to suppliers and the information and means available to those working to reduce consumption and increase efficiency. As we shall see, this is a problem that is critical to developing new institutional arrangements: in today’s world, in which social cohesion depends on economic growth, the apostles of efficiency and frugality often preach in the desert.

Despite these obstacles, sensitivity to energy efficiency grows with each passing year, a point that is illustrated by a great deal of statistical data.

First, “energy efficiency” is not a meaningless term. Decoupling a nation’s development (economic or otherwise) from its energy consumption is perfectly possible. Available comparative statistics demonstrate that at equivalent levels of human development, countries cover a wide spectrum in terms of energy consumption. Among rich countries, there is an obvious contrast between “American” development, which consumes a large amount of energy, and “European” development, which is considerably more restrained. The countries of the

former Soviet Union stand out by their appalling performances, in which there was little well-being combined at the same time that there was considerable energy consumption. Communist regimes lacked both regulating mechanisms and countervailing powers capable of resisting their brutally productivist outlook. Poor energy efficiency resulted.

The numbers reveal what is at stake in the choosing a development model for countries whose economies are just taking off, like China and India. They suggest the importance of offering them, while there is still time, efficient technologies and alternative development models. China understands this well: because it currently uses twice as much energy as Western industry for any given product, it must improve its energy efficiency quickly if it wants to postpone as long as possible the inevitable showdown with the United States and Europe for control of the world's energy reserves in the Middle East, Africa, and Central Asia.

Changing patterns of energy consumption in any given country confirm that the relationships between economic development and energy consumption are flexible. While for a long time they were closely related, these two growth curves have diverged since 1970. This shows that even within our economic system, political and technological choice can be decisive in decoupling development and material consumption.

The increasing importance of energy efficiency has made it possible to fine-tune our understanding of the problem. Fossil fuel consumption breaks down into three categories of comparable if not identical size: industrial production, human and commercial transportation, and residential activities, including housing (such as heating and air conditioning) and offices.

The most notable progress has occurred in the realm of industrial production. It is easier to negotiate with producers with the financial and technological means to react than with ordinary citizens, whom it can be politically costly to constrain through regulations.



The time has come to focus our efforts on the two other realms: transportation and residential activities.

Energy policies are based on different timeframes, ranging from the short to the long term.

Let us begin by considering time. How much time is needed to bring about significant change in the way we produce, consume, and live, and to ensure the same degree of well-being with considerably less energy consumption?

First, there are changes that might be described as behavioral. Some can be made quickly, such as turning off the lights when one leaves a room, not using one's car for walkable trips, lifting one's foot on the accelerator, and carpooling.

Other changes can only occur in the long term, as they depend less on individual behavior than on collective investments: where one lives, how one uses one's free time, how one travels from home to work, etc. These examples call attention to the importance of what one might call mixed goods or decisions: changes that, to be fully effective, require a combination of public and private decisions. A good example is the renewal of interest in Europe in bicycles as a form of urban transportation. I have bicycled for over forty years, but fifteen years ago, I felt like the last cyclist in Paris. The city's residents and municipal officials needed their consciousness raised to create new bicycle paths. The public's enthusiasm for this new use of space encouraged the city to pursue its efforts, and to confront the objections of business-owners and car-drivers when they arose. The success of Vélib' (a system of publicly available bicycles) in Paris in 2007, following Lyons' example, testifies to the achievements that are possible thanks to changing outlooks and political courage.

In the medium term, one can also include the adaptation of particular industrial products to greater energy efficiency standards, such as washing machines, dishwashers, boilers, and individual vehicles. In this realm, change requires about five to ten years: the time to conceive, to finance, and to develop products that are likely to provide an equivalent service with a far greater expenditure of energy.

But for such investments to occur, industrialists must have the government's ear. Consider the example of hybrid and electric motors for individual vehicles. In assembly line industries requiring heavy investments, such as the automobile industry, developing radically new practices and technologies entails a real risk, however powerful the companies in question might be. Risks like these are only taken if costs are cut in order to reduce uncertainty. Such decreases require partnership between consumers, government, and corporations. Whoever has been involved in this kind of work in government knows that it is politically very difficult, when considering new regulations, to get ahead of public opinion and the capacity of corporations to adapt to change. On the other hand, to creative incentives for innovators, it is just as important to ensure, given the costs of innovation and the supplementary production costs of new vehicles, that regulations and matching public funds are approved in a timely fashion. In other words, each party must innovate, yet without being too far ahead of everyone else. Because consumers tend to be influenced by fads, it is also important that new products be tied to consumption practices or lifestyles practiced by the upper middle classes, as it is they who create and publicize fads. If new products, however promising they might be, become associated with poverty, they will have a much more difficult time becoming mainstream. The bicycle, once again, provides an excellent example. Forty years ago, it was associated with the working class. Today, it tends to be associated with the "bohemian bourgeois" (or "bobos").

Modified behavior over the short term and changes in the supply of goods and services over the medium term are likely to significantly improve energy efficiency. But they are not sufficient. The most important changes must occur over the long term. Transportation- and home-related energy consumption, the two most important factors, are tied to our conceptions of cities, neighborhoods, and spatial organization.

Studies show that urban residence and population density are the most decisive factors in the choice of transportation. Studies by the Laboratory of Transportation Economics in Lyons demonstrate that the average number of kilometers travelled has increased (all forms of transportation included) by 3% each year for the past two hundred years. 3% a year! However quickly the energy efficiency of a form of transportation has increased, a growth rate of this size is not sustainable over the long run. Yet it is tempting to regard these long term patterns as laws of nature or as expressions of human nature as such. Urban structures only evolve over centuries. In France, moreover, suburbanization accelerated thanks to the decentralization of the eighties, which reinforced municipal autonomy without fiscal compensation and without establishing political authority in major population or employment centers. Commerce and industry have followed the major roadways. To reverse this trend would be painful. Everyone knew this, everyone still knows it, yet it continues. Millions of households are dependent on, even enslaved to their cars. This illustrates the long-term consequences of demagogic and short-sighted politics. It raises the question of what sanction or reward they should receive. We know how to prosecute war criminals fifty years after the event. We do not know how to challenge economic and political authorities who are still in place.

The housing stock, for its part, renews itself on average at the rate of 1% a year in a country like France. Energy efficiency depends on the transformation of the old stock, which

requires partnerships between various actors: industrialists, who must develop suitable technologies; building professionals, who must integrate efficiency standards into all their calculations; local government, which must change regulations in order to favor insulation; the state, which must develop an appropriate tax structure; and banks, which must create suitable financial products.

We must connect the problem of time to that of space. First comes the question of situating human activities in space. The transportation and information revolution played major roles (as we have seen) in internationalizing the economy by thinning out space. Will greater consciousness of energy's scarcity contribute to a re-localization or re-territorialization of the economy, production activities, and exchange? These mechanisms are more complex: distance and the energy cost of transportation are far from being proportional. Small loads transported over short distances can be just as costly in terms of energy as mass transportations over long distances. Furthermore, the cost of distributing information remains very modest. This is why I speculated about mixed economical organizations combining international chains and territorially-based production.

The quest for energy efficiency requires the identification of different timeframes, but also of different spatial levels. The organization of space at both a macro and a micro level are equally important. At a very local level, this might involve setting up the basic elements of an ecological home, such as light, exposure, incline, air circulation (which, in hot countries, makes air conditioning avoidable), thermal isolation, independent decontamination, etc. The next level involves making neighborhood energy use efficient, by organizing public services, making space multi-functional, and relying on local sources of renewable energy. Successively higher levels are those of the city, the metropolitan area, the region, the continent, and the world. It would be

fastidious to explain how each of these levels shapes human activities and, consequently, energy production and consumption. The key point is that energy management makes action necessary at each spatial level.

To organize these spaces, however, one must also be aware of the production and exchange flows occurring at each level. Classical economics posits two fungible principles: time, and goods and services. Interest rates and discount rates make it possible to treat the future as though it were the present, on the grounds that decisions are made in the present and that difficult choices are unavoidable. Traditional financial products demonstrate this fact when they allow interest rates to vary according to a loan's duration. Modern investment schemes require head-spinning choice between the short and the long term and between liquidity and risk. Similarly, the idea of a single currency rests on the tacit hypothesis that every good and service we buy can be measured according to a single standard, since we make choices about what to buy and what not to buy. These assumptions must be called into question, as the example of energy reveals in relation to the question of time. We must consider each temporal level independently of all others. Certain long strategies must be undertaken immediately if we are to avoid catastrophe.

The second school of thought on decoupling development and material and energy consumption is what I call the "German school," as it is best represented by two German institutes, the Wuppertal Institut and the Öko Institut. Both seek to connect abstract philosophical and political considerations (i.e., the relationship between human activity and the biosphere) with detailed technical recommendations. This is worth mentioning in light of the ideas we have been considering. Considering society as a bio-socio-technical system allows one to see the ecosystem, the economy, society, politics, and technological change as parts of a whole. Methodologies are still prone to emphasize one of these sub-systems at the expense of the others.

But to change the relationship between human activity and the biosphere, we must be prepared to get our hands dirty. If we are interested in technological systems, new modes of production, and less wasteful products, then we have to consider how they can be achieved. Contrarily, when considering economic issues, the question of which technological systems are best suited to achieving one's goals is immediately raised.

The central concept in the thinking of both institutes is that of material flows. It is a concept that connects the environment, economics, and social and political systems. If one is interested in society's metabolism, just as one might be interested in the metabolism of a living being or an ecosystem, then it is essential to be able to measure it. Describing the metabolism of a living being or a society requires measurements. Since nothing can be managed if it cannot be measured, the Wuppertal Institut has attempted to describe economic systems by a synthetic standard called MIPS ("Material Input Per Service Unit"). It measures, as its name suggests, the amount of matter that is used for every unit of a service rendered. This measurement, conceived by Friedrich Schmidt-Bleek, has the enormous merit of defining the ultimate goal to be achieved through a generalization of the principle of energy efficiency: we must reduce the amount of matter consumed for any given outcome. It is also worth noting that this outcome is denominated not in terms of goods, but in terms of service rendered. The goal, according to the Wuppertal Institut, is to divide the number of MIPS, at least in industry, by ten between now and 2050. Dividing MIPS by ten would assuredly require the creation of modes of production, distribution, and consumption that are radically different from those existing at present.

The study of material flows has also led to a new way of measuring flow inputs and outputs, known as material flow accounting. It is astonishing that not until the twentieth century was it recognize that accounts of material flows are indispensable to company management, even

though double-entry bookkeeping, introduced by the Italians during the Middle Ages, has long been deemed essential to business. The use of money to extend commercial exchanges across the world has paradoxically cast a veil of ignorance over our society's physical operations.

Various Wuppertal Institut documents provide a useful introduction to an economy founded on balancing human interests with those of the biosphere. Material flow analysis requires paying attention to matter circulation, including input and output, both in any given geographical area and different geographical levels. It is no small matter that these institutes are themselves located in specific places. The Wuppertal Institut, for example, is dependent on the state of North Rhineland-Westphalia.

Flows operate according to one of two related modalities: along industry chains or within territories. Chains and territories are the two related systems of a “bitmap” approach to social management, with chains organizing “vertical flows,” while territories organize “horizontal” ones, i.e., those between humans and a given space.

In 2007, confronted with France's troubling trade deficit with China, President Sarkozy mentioned the possibility of taxing the “carbon content” of Chinese imports. Though the idea itself was politically unacceptable at the time, given that proposals for a domestic “carbon tax” had recently been abandoned, it nonetheless rightly emphasizes the importance of knowing the quantity of energy that is mobilized at each stage in the production and use of goods and services.

What matters is not the size of the final product so much as the amount of material and energy needed to produce these goods. The classic example is silicon chips, whose weight is negligible, but which require a large amount of materials to be produced. Mathis Wackernagel popularized a way of measuring our lifestyle's environmental impact: the “ecological

footprint.”<sup>74</sup> It consists of evaluating the number of hectares of agricultural land required to sustain a particular way of living. One can quibble over its accuracy, but the measurement is bold and provides a useful tool for comparing different lifestyles. It is in this way that the Wuppertal Insitut, when analyzing the materials that are mustered to produce imported goods, can affirm that Germany depends on a territory that is the equivalent of 125% of its own area to support its current lifestyle—a new form of *Lebensraum*. Measures like this have made it possible to claim that providing everyone on earth with a Western lifestyle would require four planets like our own.

While useful for raising awareness, such measures can never replace calculations of the materials used by consumed goods and services or balance sheets of materials used by entire chains of production and consumption. Well-informed industrials are getting used to tracing their products from “cradle to grave,” up to and including the disposal of waste. Putting a material balance sheet on a product’s package is no more difficult than listing what it is made of—and it is just as informative.

An example is the so-called “Environmental Round-Table,” a somewhat hastily arranged series of negotiations between the state and companies, consumers, environmental associations, and other, which took place in France in 2007. The question of renewing the car stock was obviously considered: to pollute less, why don’t we replace all the old polluters and gas-guzzlers with new technological jewels? Naturally carmakers, while they are opposed to a carbon tax, approved and suddenly became the environment’s best defenders. Question: who knows what the energy and material cost is of a new car? How much energy must be saved over how many kilometers to amortize this cost? I, for one, don’t know. To my knowledge, this question has yet to be put forth.

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<sup>74</sup> [www.fr/s\\_informer/calculer\\_votre\\_empreinte\\_ecologique](http://www.fr/s_informer/calculer_votre_empreinte_ecologique)



#### 4. Towards a Territorial Ecology and a Functional Economy

The other current that has emerged from reflection on material flows is industrial ecology. In the Francophone world, it is represented and promoted by Suren Erkman.<sup>75</sup> Industrial ecology began to emerge in the nineties, in the wake of an article by Robert Frosch and Nicholas Galopulos entitled “Strategies for Manufacturing” published in the *Scientific American* in September 1989. It begins with the observation that one can no longer consider the industrial system (i.e., human activities) as separate from the biosphere. One must, to the contrary, consider industrial activities as an ecosystem, with the same measurement tools and the same analytic concepts. Until recently, the relationship between human activities and the environment was thought of primarily in terms of environmental damage and pollution. To deal with pollution, the first reflex was to eliminate, at the point when they are about to be released into the atmosphere, water, or soil, the sub-products of the production process that lack any economic value: smoke, polluted water, industrial waste, and so on. Pollution was dealt with at “the end of the pipe.” The goal was to keep perturbations of the biosphere by such waste at an acceptable level. Such an approach is localized, narrow, and costly, but it averted a broader reconsideration of the production process itself. Instead of rethinking the system in its entirety, the inconveniences of the current system were simply limited.

We have become gradually aware of the costs and limited efficiency of this kind of approach, and efforts are now made to deal with the problem “upstream,” aiming at prevention rather than reparation. Such efforts are similar to those made some fifty years ago in the realm of quality. ISO quality norms were not simply aimed at controlling quality at the end of the

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<sup>75</sup> Suren Erkman, *Vers une écologie industrielle*, Éd. Charles Léopold Mayer, 2<sup>nd</sup> édition, 2004.

production process, but were based on the awareness that a product's ultimate quality depended on each stage of the production process.

But the search for clean production processes remains attached to a narrow conception of human activity, in which each process is closed on itself. Industrial ecology proposes seeing things on a different scale, considering human activities not in isolation, but as a whole.

Returning to ecology's classic concepts, Suren Erkman has described industrial ecology as "accelerating the maturation of ecosystems." What does he mean? An immature ecosystem is one in which a small number of agents have very great natural resources and operate in "open" cycles, in which they take from the environment before throwing their waste back into it. As the system becomes more mature, it becomes qualitatively richer, and its cycles become "closed." Because of the complementarity between the system's agents (micro-organisms, plants, animals, human activities, and so on), most flows occur within the system, thanks to a large number of feedback loops. The system takes as few resources from outside as possible, while throwing as little waste away as it can.

Applied to human activity, the principle of ecosystem maturation is achieved by making activities more complementary, with the waste products of one activity becoming the resources of another; by closing the gaps in material cycles; by reducing squandered energies to a minimum; by de-materializing production and services; and, finally, by de-carbonizing energy. In this way, one moves from concentrating on isolated activities to considering the relationships between activities.

Industrial ecology shows how important it is to build stable relationship configurations. A mindset in which an economic agent's stable internal relationships (such as those of a company)

contrast with its atomized transactions with the outside world must be replaced by a more complex kind of institutional arrangement based on networks of relationships.

How can one help the ecosystem in which human activity is included to “mature”? How can the cycles be closed? Two paths flow from this new approach: the search on a local level for complementarity between human activities, and the development of what Suren Erkman calls the “functional economy.” The latter involves “dematerializing the economy,” i.e., replacing, whenever possible, the production of new goods (with all the energy and material expenditures they imply) with offering services.

“Industrial symbiosis” refers to the search for complementarity between production activities in a given territory. Its classic model is Kalundborg, a small town on the Danish coast about a hundred kilometers west of Copenhagen. Beginning in the fifties, it began to develop economically, thanks to the building of power station and an oil refinery. “Over the years, Kalundborg’s main companies began to trade ‘waste’: vapor, water (of differing temperatures and purity levels), and various sub-products. At the end of the eighties, those in charge of local development realized that they had advanced and had created a system, which they spontaneously baptized ‘industrial symbiosis.’” (Suren Erkman, p. 28). This symbiosis is the result of complementarity between five major partners: a power station, an oil refinery, a producer of industrial enzymes, a construction panel factory, and the town of Kalundborg itself. Among these five entities, water, gas, sulfur, gypsum, and heat circulate. The reasoning used in Kalundborg has frequently been borrowed. The shift in outlook that it reflects perfectly illustrates what I have called the “bitmap” approach and institutional arrangements: whereas from the perspective of vertical chains (such as the automobile chain), the reduction of transportation costs facilitates the distribution across the globe of various segments of the chain,

the material flows approach and efforts to bring the industrial system to maturation offer incentives to promote territorially-based complementarities between various companies. The vertical and horizontal approaches thus begin to complete one another.

The transition from a goods-based to a service-based economy promises still further change. For years ecologists have been denouncing our economy's wastefulness—its tendency to produce new goods that quickly become physically, technologically, and socially obsolete. In a society of the spectacle, in which the diversity of the supply stimulates demand even when difference between products is minimal and even superficial innovations pass for progress, rapid obsolescence is essential to social equilibrium. Unfortunately, equilibrium of this kind is becoming suicidal. By making the transition from material abundance to a richness of functions, we can turn away from the real reasons for consumption, and search for alternative means to ensure necessary services while minimizing the amount of materials used.

Just as Kelundborg has become the symbol of industrial symbiosis, the photocopier-maker Rank Xerox has become a hero of the "functional economy." To quote Suren Erkman's new book (on p. 157): "Xerox gave up producing 'new' photocopiers in favor of a strategy of 'remanufacturing,' which emphasizes selling a service (high-quality photocopies) rather than producing photocopying machines." In practice, Rank Xerox offers its clients working photocopiers that meet their current needs and guarantees them regular maintenance and the replacement or repair of spare parts. By pooling the stock of machines with which it provides its clients, Xerox, thanks to a modular conception of its machines, ensures speedy replacement of spare parts. This allows it to guarantee that its machines will always be in working order and will always be adapted to the clients' evolving needs, at the same time that spare parts are recycled to

the maximum. What it offers is not so much a product as a service that the client needs. The goal is thus to provide the service with as few resources as possible per functioning unit.

Four pillars, as Suren Erkman calls them, characterize the functional economy: prevention, which consists in conceiving products that will last from the outset (the exact rejoinder to the principle of planned obsolescence) and according to a modular and standardized structure; maintenance, which prolongs their lifespan; “cascading” usage, meaning that goods are reused for less demanding purposes; and resale services, which allow companies that want to get rid of equipment to ensure that it will be either reused “in cascade” or dismantled (Erkman, pp. 161,162).

A particularly valuable concept when considering territorial economies is that of “cascading usage,” which consists in making maximum use and exhausting all the potentialities of everything that is present in a territory. The modular approach emphasizes the interchangeability of parts on a territorial scale. There is no compelling reason to limit one’s thinking to the scale of a single company, other than for the profits one might hope to extract from the situation. It is easy to imagine compatibility norms for most of the parts of that an industry uses. Companies are encouraged, at an internal level, to make all the parts on any give product line compatible. This creates economies of scale. It means, for instance, that the same gearbox can be used for an entire line of cars, making it possible to pool research and development expenditures as well as (and just as importantly) learning and adjustment costs. But it is entirely possible to conceive of modular cars in which the spare parts, or specifically the connections between the different parts, would be fully normalized. This is already the case for computers and freeware. The subcontracting by computer makers of most parts had led them to be normalized, thus allowing for considerable redistribution of the power to negotiate at various

stages of the chain. For this reason, the companies that historically made computers, whose added value consisted of conceptualizing new products and managing their assembly—companies like IBM, Compaq, Hewlett-Packard, and so on—began to face stiff competition from companies that simply assemble normalized parts, like Dell, which assembles them on demand at an intense rate, with great success.

Habit alone that make us see the current structure of companies as untouchable and leads us to think in terms of the false alternative between management (i.e., internal organization) and competition (that is, relations with others actors). The modular approach that is inherent to the “functioning economy” makes it possible to imagine other institutional arrangements in which local, inter-company assembly and maintenance units would combine on demand various normalized parts hailing from different origins. Following Volvo’s “flexible workshops,” which was a departure from breakdown of tasks along the assembly line, this approach would be a new stage in the post-Fordist era.<sup>76</sup>

The transition from a production economy to a functioning economy depends on normalization, which ensures the interchangeability of parts. Normalization is a public good of new kind. It not necessarily achieved through the public sector. The lack of an automatic correlation between the public and the public sector is, once again, characteristic of governance of a new kind: one learns to distinguish between the service rendered (in this, the normalization and interchangeability of parts) and the status of the individual who renders it. Here, too, the internet blazed the trail. True, the internet was born because, during the Cold War, the U.S. Defense Department needed to eliminate one of its primary weaknesses: the centralization of its command structures. If just one missile landed in the right place, the military’s entire

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<sup>76</sup> Note from December 2008: In response to the crisis in the car industry, Fiat’s president proposed this idea and specifically invoked the precedent set by the computer industry.

coordinating system would be destroyed. But this system was quickly borrowed by American universities to develop inter-university exchanges. The creation of the World Wide Web continued its stunning development. The Web is founded precisely on a normalization of exchanges between servers. This normalization was established and managed by a consortium of (at first) four universities, the World Web Consortium. These norms have become so publicly valuable that the organization that provides domain names on the web was at the center of major diplomatic maneuvering between states during the World Summit on the Information Society (SMSI).

Normalization and the interchangeability of the material and immaterial components of human activity thus count today as some of the most important contemporary public goods. This is only an extension of the long historical process that began in the eighteenth century with the normalization of screws and which continued, during the twentieth, both at the state and the international level, with the establishment of normalization agencies. The transition from a goods-based economy to a functional one marks a turning point in the relationship between materials and labor and between capital and labor. To speak in general terms, one might say that the first industrial revolution replaced human energy with fossil fuel and human labor with material capital (consisting of buildings and machines). Today, our problem is almost exactly the opposite: the consumption of matter must be replaced by human labor and immaterial capital (intelligence, a capacity for collective organization, and technology). But service activities, such as the kind of maintenance and parts-replacement that Rank-Xerox does, is localized by definition, in contrast to the production of goods, which could be easily delocalized. The shift from one to the other leads to a relocation of an increasing share of economic activity.

Taken a step further, this reasoning explodes the distinction between private and public capital. What is more lasting than a city, especially a European city—a totality of material and symbolic investments organized among themselves, whose “spare parts” (the buildings, roads, networks, etc.) are constantly being renewed? Studies in urban morphology have shown the extent to which ancient ways of dividing up space contributed to creating modern cities by shaping roadways and modern urban space. These original divisions have been constantly readjusted (through subdivisions or regroupings), but nonetheless a stable pattern was created. The most beautiful cities are based on very simple rules, such as building alignment, fixed ratios between building height and roadways width, and rules of architectural coherence, within which individual architects can display their own individual talents.

The rate at which good usage evolves can vary considerably. Replacements—of a photocopier’s spare parts or even of an entire business in particular commercial line-up—often occur quickly. More profound changes, such as a neighborhood’s structure, may only occur once a century, or even less often. Cities are able to preserve their traditional quality through such basic elements as roadways and building alignments because each of these elements can be used in multiple ways. The tragedy of the urban projects of the 1960s was that they were conceived in such exclusively functional terms that their only future prospects were their own obsolescence, just as a device that has only one purpose will eventually wear out. By analogy, service offerings could depend on the creation, at the level of each territory, of stable infrastructure (from the transportation system all the way through, say, to the photocopying system), within the framework of which service providers would, at a more or less rapid rate, reuse collective material capital (“infrastructure” in the broadest sense of the term) to offer a variety of services. Rather than a juxtaposition of public and private material capital, one would thus have



investments in essentially collective material capital, comprised of both public and private investments, which would then be coupled with various forms of immaterial capital, such as socialized knowledge and localized labor. The whole would be shaped by the material and energy flows needed to make the system work and to ensure its gradual development.

## Chapter 5: From the Economy to the Œconomy

“One of the principle reasons for the poor progress of the moral and political sciences, and particularly for the difficulty in spreading and ensuring the adoption of their true principles, lies in the imperfections of the language they use.”

Condorcet, Sieyès, and Duhamel, in the *Journal d’instruction sociale* (1793)

We should now be convinced of the need for a radical change in the systems of thought and the institutional arrangements upon which production and exchange are currently based. We have identified several forks in the road that could serve as new starting points, a few emerging trends that could be followed, and a number of intuitions that could be deepened. We see, in short, a broad range of insights and ideas. By deconstructing false assumptions, we have discovered an abundance of material out of which a new outlook can be built. What we are still missing, however, are the blueprints and tools necessary in order to start rebuilding. *What* will we build? *How*? And with whom? This is what I now propose to explore. I will do so first by defining our ultimate goal and coining a new word to name it: *oeconomy*. Next, I will explain why bifurcations occur in systems that are congenitally opposed to change. This will lead me, in third place, to propose that we think of strategies for change in terms of their actors, the level at

which they occur, the stages they go through. This will provide clues to finding partners in the collective task of rebuilding.

### **1. Oeconomy: Back to the Beginning**

In building a new system of thought, vocabulary is essential. Vocabulary is the key to thought. I mentioned earlier the persistent confusion between economic globalization and globalization-as-interdependence. Now what about the word “economy” itself? As I explained earlier, it consists etymologically of two Greek words: *oikos*, which means household, or a home that is shared, and *nomos*, which means law. Strictly speaking, economy refers to the rules of household management. However, as Mikhaïl Gorbachev explained in his famous United Nations speech in 1988, the home we share is now the planet itself. The word’s original meaning can be found in terms like “home economics” or the “domestic economy.” It is interesting to note that the adjective “economical,” which refers to the scarcity of natural resources that has always conditioned our society, now refers to the exact opposite. An “economist” is someone who is constantly trying to create new needs, eliciting the needs that will fuel the growth that the system needs to avoid collapse. It is enough to consider the way in which discourse about consumption has over time adopted an increasingly strident tone. Journalists, with straight faces, write things like: “Fortunately, the morale of American consumers remains high and they continue to borrow,” “sales have stimulated growth,” and so on. So much for puritan frugality. Long live waste!

What are we to do when the current use of a word is so far removed from its original meaning? And when it is precisely that original meaning that matters today, as we have to

completely rethink how to manage our planetary household and organize production, exchange, and consumption?

There are two possibilities: either we must strive to give “economy” back its original meaning, or create a new term. In the case of “governance,” though it is often understood in light of the very restrictive sense given to it by international institutions, I thought that the rehabilitation of the old French word “*gouvernance*” was worthwhile. It was important to strive to endow the word with a meaning that was rich, comprehensive, and new.<sup>77</sup> But in the case of “economy,” the battle seemed lost in advance. I thus decided to speak of “oeconomy,” as a way of referring to the art of organizing material and immaterial exchange between humans, between societies, and between humanity and the biosphere. This is the word I will use from here on. I will speak of “economy” only when discussing current economic thought. This will spare me from having to put scare quotes around “economy” each time I use it. In choosing to speak of oeconomy, rather than of “a responsible, plural, and united economy,” I drew on the word’s etymology. It seemed to invoke the very issues that we must address at present. Somewhat naively, I imagined that I was alone in taking this initiative. These kinds of delusions are as common as they are commonly denied, for our ideas can never be anything but the more or less conscious expression of collective trends. Aurore Lalucq’s online research has proved that to use the word “oeconomy” is simply a return to the beginnings, since in the eighteenth century this word was preferred to that of “economy.” I also discovered how many people, at the same time as me, have become interested in the word and the ways in which, in the period before the

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<sup>77</sup> Pierre Calame, *La démocratie en miettes* (introduction), *op. cit.*

French Revolution, it was used to address oeconomic questions. I relied in particular on Christophe Salvat's working paper from 2005.<sup>78</sup>

In 1615, Antoine de Montchrestien (1575-1621) wrote a treatise on political oeconomy for Marie de Medicis and the young King of France Louis XIII, in order to teach them how to make policy choices. Oeconomy, at the time, meant the art of managing people and things. Antoine de Montchrestien speaks of the "public menagerie," from which both the terms "household management" and the modern idea of "management" are derived. Oeconomy was thus the art of thinking about relations between things and between people. In 1687, Pierre Poirer published in Amsterdam a work entitled: *Divine Oeconomy, or the Universal and Proven System of the Works and Purposes of God towards Men*. Oeconomy, in this case, was inseparable from systems and the management of systems.

The book by the famous botanist Carl von Linneus (1707-1778) entitled *Principles of Oeconomy*, which was published in 1752, is even more precise. It speaks of principles of oeconomy based on natural sciences and physics. According to him, it is the "art of preparing natural things for our own use, the art of making use of all Nature's goods." The "laws of oeconomy" to which he alludes are not what we usually understand by that term. Rather, they are inseparable from the laws of physics: "Thus, knowledge of natural things and of the action of elements on bodies, and of the means to direct this action towards certain ends, are the two axles on which oeconomy turns." This is why his analysis of oeconomy is based on the nature of the elements to be considered: metals, minerals, vegetables, and animals.

Like Pierre Poirer's book, the idea of divine providence permeates these reflections. *Oeconomus* is nothing other than the art by which humans use what God has given them. He

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<sup>78</sup> Greqam, Working Paper 200550, "OEconomies – les articles oe/économies et leurs désignants dans l'*Encyclopédie*," Christian Salvat, CNRS/Greqam, November 2005.

writes: “It would be reasonable to say that God not only gave us, in the vegetable kingdom, the best of all that we could possibly imagine in the way of food, clothing, and shelter, but that he also wanted it to please our senses. He spread across the earth a carpet of flowers and he made man so that he might enjoy the innocent pleasures that their infinitely variables scents and tastes can offer. Thus to “run the household” [*ménager*] of nature is to know how to make use of it: “A wise oeconomist knows how to make use of these circumstances and to see to it that no one earns more than he.” Then he offers many examples of the capacity that people have to make use of resources that are unique to the particular context of each country. It is, however, with the French *Encyclopédie* (c.1754-1755) that the terminological shift occurs. In his discourse on political oeconomy, Jean-Jacques Rousseau uses both terms. He explains: “The word oeconomy comes from *oikos*, house, and *nomos*, law. It originally means nothing more than the wise and legitimate government of the household for the common well-being of all the family. The meaning of this term was subsequently extended to the government of the large family that is the state. To distinguish between these two meanings, the latter is called general or political economy, and the former domestic or particular economy.”

Thanks to this quick overview of eighteenth-century thought, we can see that the art of management is inspired by three ideas that are particularly relevant to us today: governance, the management of relationships, and the art of making a balanced use of natural resources. This idea of a wise government of men and of things, which is rooted in the patriarchal values of an agrarian economy, will be progressively replaced by what Aristotle called “chrematistics.”<sup>79</sup> Aristotle distinguished between two economic frameworks: “One that is closely tied to nature and which endeavors to stock, manage, and make a profit of the products that are necessary to

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<sup>79</sup> Marie-José Mondzain, “Chrématisique et économie,” included under the larger article “Oikonomia.” *Dictionnaire Le Robert*, Seuil, 2003. Available online.

life (the economy), and an unlimited one, which seeks only enrichment (chrematistics) and requires ethical oversight because it substitutes goods for money.” With the idea of “stockholder’s value,” which late twentieth-century economists hold dear, we have retreated from oeconomy back to chrematistics. The time has undoubtedly come to reverse course.

## **2. The Art of Bifurcation**

The bio-socio-technical system that constitutes all societies is characterized both by interdependence and inertia. While inertia can be found in the social system as a whole, its most common victims are systems of thought and institutional arrangements. Our society changes every day. In the technical domain, it changes perhaps too quickly—so quickly that our ability to regulate it inevitably lags behind. But social evolution to a great extent obeys the heavy, structural logic of its actors, and thus follows a course that has been largely determined in advance. I have given many examples of this inertia: the application of older ways of thinking to a society that has profoundly changed, the self-referential character of doctrines and actors, the imbalance between information and expertise, the incapacity of monitors to see anything other than what they are looking for—not to mention the inertia of urban structures, the dead weight of past investments, the power of interests bound to the *status quo*, and so on.

It is thus less important to understand how our society develops according to a predetermined course, than to understand how it might bifurcate—that is, how it might change directions. Hence the importance of considering history. Like rockets, societies have a primary motor, which propel them along their predetermined course, and secondary motors, which may, at times, propel them in a different direction. It is essential to consider these deviators when the need to change course becomes apparent. These include ideas—often marginal ones—that, over

time, will come to guide thought as well as practice. The European Commission uses the term “mainstreaming” to describe the ways in which once far-fetched ideas become commonplace, and the ways in which a deviant practice becomes the norm.

Major social institutions belong to a society’s primary motors. They innovate, but within predetermined constraints. In my own experience, I have been able, first as a top civil servant, then, more surreptitiously, as a corporate executive (when I was secretary general of the French steel industry major Usinor), to observe up close the sociological particularities of major government organizations and large corporations. Though they are of course concerned with their own well-being, they are also, far more often than is realized, dedicated to the public good. Most innovate from time to time, but only within the constraints allowed by the system. This also applies to initiatives taken to promote corporate social responsibility: they have good ideas, but their impact is insignificant as long as they take the system as a whole for granted. Their training makes economic and political leaders good at toying with ideas, but bad at creating. To create is to expose oneself to ridicule and to risk marginalization by one’s peers. Social institutions are, in the end, “destiny’s willing tools”: they innovate within the constraints of the system’s rules, without having the urge, the courage, the imagination, or the inclination to change.

A society is like a large ocean-liner: through inertia, it can chug on for a long time in the same direction; it has, however, a difficult time making turns. An ocean-liner’s power lies in its mass, rather than in the speed with which it reacts to change. To reproach it for being this way would be pointless. The purpose of great social institutions is to ensure society’s self-reproduction and perpetuity. They are its fletching; they guarantee its stability. But the very thing that usually gives its strength becomes a weakness when drastic change is needed.



In companies, as with scientific research, radical innovation rarely comes from the inside. The “inside” is usually too structured and too organized. Its division of labor is too complex and its explicit or implicit rules of the game are too elaborate to permit radical change. This is so true that large companies, which have unrivaled capacities to innovate, to employ new technical means to create new products, and to seize hold of new opportunities as long as they are consonant with the company’s ultimate purpose, are acutely aware, when they need to envision more radical innovations, that they must turn to external innovators or create virtual micro-companies within their fold. They know that the radical innovations upon which their survival may depend in the long run will most likely be born on the outside and that they must be on the lookout.

The example of the computer industry and the internet (which I have already mentioned on several occasions) provide a perfect illustration. To manage, to innovate on the margin, to make optimal use of one’s resources, on the one hand, and to innovate radically, on the other, correspond to different kind of personalities and structures. The same is true of ideas and doctrines. Changing course implies exploratory initiatives on the margins of codified knowledge. The new economic models in the computer industry did not come from IBM, but from Microsoft; not from Hewlett-Packard, but from Dell; not from government bureaucracies, but from the Web Consortium; and not from academia, but from Google.

### **3. A Strategy for Change: Actors, Levels, and Stages**

What would a strategy for systematic change look like? How can we get from economy to oeconomy? The fact that change inevitably takes time is a consequence of the system’s inertia. But why is it difficult to conceptualize and to direct this change?

It is difficult because a large number of conditions must be first identified, then achieved. I have organized them into three groups: actors, stages, and levels. To accomplish a shift from economy to oeconomy, these three groups must exist simultaneously.

### *Actors*

There are four categories of actor: innovators, theorists, generalizers, and regulators.

#### *Innovators*

The innovator's first task is not to "rethink the economy," but to develop new practices. Often, these are simply reactions to situations which have become unacceptable. Promoters of organic farming, inventors of social currencies or microcredit, activists for a cohesive economy, ethical investments, or fair trade, and defenders of freeware (as well as many others who have already been mentioned) are already inventing tomorrow's world. For them, change is the child of protest and hope. Rarely are they able to provoke systemic change on their own, either because they are too isolated or because the innovations they propose are not comprehensive enough. They risk finding themselves on the margins of the system (this is true of several of the examples given) or of simply forming, with others, a protest movement (as with anti-globalization activists). They do not provide a comprehensive or credible alternative to the current system.

We must be as modest as nature itself, which always proceeds by trial and error: innovation, as everyone knows, leads to many false good ideas, and to many paths that turn out to be dead-ends. We know, for instance, that currency must be reinvented. There are many paths in that direction, but it is difficult to know which to take.

## *Theorists*

By theorists, I mean creators of new doctrines, rather than professors of dogma. Their job is to arrange disparate facts into a coherent system. In periods of change, they deconstruct the conventional wisdom, explain how it contradicts reality, and reorient thought in general, introducing new concepts and goals. In the realm of governance, I have been personally involved in the work of theorizing—i.e., in the elaboration of concepts drawn from reality rather than books. Daily engagement with reality reveals the dead-ends to which the current doctrines lead, through the meticulous comparison of situations, the identification of new structural trends, and the formulation of general principles. The shift from an old to a new doctrine occurs through a process of inversion, in the mathematical sense of the term. A previously marginal idea becomes central, while concepts that were once essential are relegated to the background. Take the example of institutional arrangements. Without being absent from classical economics, it played no more than a marginal role. What really mattered were companies. Yet this concept, as I have demonstrated, is central to the future, as it proves that stable configurations are those that group together multiple actors. Other examples of previously marginal concepts that must now become central include territories, value chains, the equilibrium between humanity and the biosphere, development itineraries, and the non-fungible character of time.

To create new doctrines, theorists need innovators who experiment with new paths. Muhammad Yunus, the founder of the Grameen Bank of Bangladesh, is typical of those who fall into both categories: “microcredit” certainly existed before him, but he was able to conceptualize it, allowing it to take off.

### *Generalizers*

Generalizers are actors who are able to change the level at which innovation occurs. They can be major actors, like large companies or government agencies, who adopt and disseminate an innovation. The global summit organized by the World Bank on microcredit, for instance, brought the experience of the Grameen Bank to an international audience and gave it international legitimacy.

Generalizers can also be professional, academic, or activist networks, as well as political or media leaders and online communities. In these cases, the keywords are information, dissemination and the legitimation of new ideas.

When an oil company concludes that the future belongs to renewable energies, when a major investment bank decides that it must integrate corporate social and environmental responsibility into its long-term strategies, when a supermarket chain decides to emphasize organic or fair trade goods, and when a city decides to review all of the cafeteria contracts of its schools, its retirement homes, and its hospitals to favor sustainable farming and local products, they are all playing important roles in changing perceptions and in shifting the level at which innovation occurs.

### *Regulators*

Regulators are primarily public institutions. They have neither the aspiration nor the vocation to be the primary motors of change, but their role is determinant and irreplaceable. It is they who have the power and the responsibility to create the new juridical and administrative framework necessary to make innovations general and permanent. Without them, the most

relevant ideas pertaining to currency, the international regulation of oeconomy, and institutional arrangements are nothing.

### ***Levels***

Innovation and theoretical reflection occurs at several different levels. Often, innovators appeal to the behavior and motivations of individuals: consumers, in the case of fair trade; citizens, when they are encouraged to act in ways that promote sustainable development; savers or investors, in the case of responsible investment; company heads, when they are asked to consider the social and environmental consequences of their decisions.

It is at the local level that many of the practical alternatives emerge. They favor cooperation over competition, or organize new systems of exchange through parallel currencies. The national level remains a major space for transformative strategies, even if the internationalization of interdependence and the globalization of production and exchange divest it of some of its prior preeminence. I do not believe in a return to the past model of national economic spaces that are more or less closed in on themselves. Even so, nation states are well-positioned to propose alternatives to neoliberal models of management. The state remains the regulating level *par excellence*, it has the legitimacy needed to create new juridical categories, to formulate new rules, to promote the traceability of production processes across chains, to initiate, to tolerate, and to promote alternative currencies, and to support new forms of public-private sector cooperation.

The regional level will become increasingly important, as regions are in sync with globalization-as-interdependence: the future global governance will likely be based on a network

of some twenty different world regions.<sup>80</sup> The organization at the level of the European Union of a market for trading emission rights is a first step towards the establishment of a market for negotiable quotas for natural resources.

The euro is becoming an alternative to the dollar's monopoly. In a statement from October 2007, the European Council announced its intention to regulate globalization. And it cannot be ruled out that Europe will one day attempt to define its own model of sustainable development. The energy-climate package adopted by the Union in 2008 is a first step in this direction. As for China, which must be taken into consideration if only because of its size and population, and India, which is as much a world region as a country, they know they cannot avoid the model of a "harmonious society," to use Prime Minister Wen Jiaobao's favorite term—that is, a society seeking harmony between the coast and the hinterland, cities and rural areas, economy and society, humanity and the biosphere.

The global level is, finally, our new domestic space, and thus oeconomy's natural domain. Giving equal importance to the development of world trade and environmental protection; establishing at a global level a market for greenhouse gas emission rights; defining a new world financial and monetary order; applying international law to major companies; creating a global fiscal system; establishing multi-actor management of international regulations (as has begun to occur with the internet); launching a "global Marshall Plan" for poor countries; identifying and managing the goods that humanity shares: all these initiatives and ideas reject the dominance of the market and of profits derived from property, be they material or intellectual, and they all imply global decision-making and regulating production and exchange on a global scale.

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<sup>80</sup> Pierre Calame, ed., *Pour une gouvernance mondiale efficace, légitime et démocratique*, Éd. Charles Léopold Mayer, 2003.

From the transformation of individual behavior to new systems of global governance, these initiatives, innovations, and ideas are all equally necessary. A strategy for change and, more precisely, a new conceptual and organizational system must encompass these five levels and integrate them into a coherent whole.

To counteract the way of thinking that currently dominates, it is essential to identify oeconomy's integrating principles. The power of the market concept, to which the theories of a professor of moral philosophy named Adam Smith owe their success, lies in its simplicity—its capacity to explain economic relations occurring at the level of a village as much as those occurring on a planetary scale. Similarly, oeconomy's core principles must also be able to adapt to an infinite variety of situations and of levels. The search for integrating principles is one of the most challenging specifications oeconomy faces. They consist both of concepts and of operational principles.

In the eighteenth century, the “invisible hand of the market” presupposed the existence and preponderance of a money economy. Similarly, double-entry bookkeeping, invented in medieval Lombardy and fine-tuned by the Venetian Luca Pacioli in 1494, contributed to the development of international companies, making multiple economic activities and consolidated balance sheets possible. As we set out to analyze material flows and to manage relations between different levels of exchange, we must strive to achieve a similar degree of simplicity and integration.

### *Stages*

In imagining the stages of a transformative strategy, we should seek inspiration from the only institutions that have accumulated wide experience in this domain: large companies. For

them, the risk that they might at any moment be outpaced by their competitors is synonymous with decline, dispossession, dismantling, or death. Based on the experience of large companies, I identify four major stages in the development of a strategy: awareness of a crisis; the formulation of a shared vision; the search for “partners in change”; and taking the first steps.

### *Becoming Aware of a Crisis*

Change is always painful. In economics, Cassandrae are legion. Their voices, which between 1960 and 1970 were at first isolated and timid (in response to environmental decline, the gap between the rich and poor, natural resource depletion, the spiritual poverty of a *Homo economicus* reduced to the functions of production and consumption, the dangers of an increasingly unregulated global economic and financial system), grew, towards the end of the twentieth century, increasingly loud. They were broadcast by the media. The earth as *Time's* 1988 “man of the year,” the Brundtland Report, the Earth Summit, the growth of the anti-globalization movement, the impending catastrophe of global warming, the signs that the era of cheap energy is coming to an end, the spread of natural catastrophes: these trends are now firmly lodged in our minds, discussed at the dinner table or at work, and have permanently entered political rhetoric. Have we become conscious enough of these crises to renounce the known in favor of the unknown or to cast doubt on our own certainties? In wealthy and aging countries, nothing is less sure. We pretend to believe that a little more energy efficiency, a bit of science and technology, a little more environmental and social consciousness, a slight extension of our working lives, and a little less enthusiasm for our cars are all that it will take to steer the



unbridled economics of “more, always more” to calmer pastures. Yet experience teaches us that any systemic change requires a shared awareness that change is absolutely necessary.<sup>81</sup>

I do not despair that such a change could occur in coming years—provided that at the same time a clear vision of the future emerges. Between 2005 and 2008, awareness of climate change progressed considerably. In early 2008, the president of the European Commission, José Manuel Barroso persuaded member states to adopt an energy-climate change package that would have been unthinkable a few years ago.

The growing power of China and India will reshuffle the deck, since competition for energy and raw materials have intensified. This became apparent in 2007-2008 with simultaneous spikes in the price of oil and of many raw materials. We are, moreover, headed towards a general monetary and financial crisis without being able to tell where it will end. The domino effect triggered by the American subprime crisis in 2007 was different from previous financial crises (e.g., the foreign debt crises of developing countries such as Mexico, Russia, and Thailand, the bursting of the internet bubble, etc.) in that it began at the heart of the financial system, rather than its periphery. In any event, it proves how fragile the system is.<sup>82</sup>

### *Formulating a Vision*

A common vision is indispensable for mobilizing commitment. The purpose of this book is to define it in broad strokes. Several elements have already been discussed. By what method can such a vision be defined? Several steps must be taken. First, we must get out of the blind

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<sup>81</sup> Note from December 2008: The reactions to the economic and financial crisis that intensified in the fall of 2008 are significant. While the crisis reveals that an era is ending, most of the remedies being considered (i.e., stimulating consumption and investment) have only one goal, that of returning to model based on growth.

<sup>82</sup> Note from December 2008: A generalized crisis occurred faster than expected. There is reason to fear that appeared before other alternatives could be discussed seriously, creating a risk that unsuitable remedies will be adopted.

alley in which we find in ourselves, in which economy is considered both a science (“how things work”) and a norm (“what must be done”). It is neither. It is an outdated ideology, out of sync with society’s needs.

Secondly, we must define our goals. Oeconomy has no other goals than those that society assigns it: the organization of production and exchange with a view to creating a responsible, pluralistic, and united society. While the scope of oeconomy’s action is specific, its goals are not.

We must, thirdly, consider the technical, institutional, and juridical means for achieving these goals. Product traceability is nowadays possible: technological advances, notably computers and the internet, have opened up radically new prospects in that field. It is also possible to analyze trade flows within a particular territory, or to distinguish, for a particular good or service, between human labor and the quantity of materials used to produce it. Various types of distance work are also technically possible. And so on.

But is it not naïve, some may ask, to imagine a comprehensive alternative to the current economy, an oeconomy that rubs companies, states, academia, and the finance system the wrong way? Is it not foolish to believe that these actors—perhaps with a touch of grace—will support such an alternative? Does one not everyday see resistance to even the most modest changes as soon as they threaten entrenched interests? Of course. But is there any other solution? Political and social conflicts can be useful both for increasing awareness and for implementing change. They are, on the other hand, incapable of producing a vision of the future. They oversimplify things, and have neither the time nor the inclination for systematic thought. Moreover, often, at the international level, force leads nowhere. Take the example of sharing and managing natural resources: we simply must learn how to that. State sovereignty over these resources will never become complete again. It is better to acknowledge this up front and to get down to the business

of making proposals, embarking on negotiations that can only be long and laborious with China, India, Africa, Russian, and Brazil, identifying unavoidable transitions, and seeking win-win solutions.

### *Finding Partners in Change*

Finding allies is the third stage of a strategy for change. Who will they be, and who must they be if the economy is to be achieved? Who has the legitimacy, the ability, and the will to undertake transformations of this magnitude? Institutions and established organizations have, by virtue of their origins, vested interests in the status quo. Citizens alone possess this legitimacy. You might wonder: “Citizens?” When we are dealing with questions so complex that they even befuddle the experts?” Yes—the citizens. And this for two different reasons.

First, we are all economic actors, whether as workers, consumers, savers, or beneficiaries of public services. And many of us suffer from a kind of schizophrenia, arising from the contradictions between what we believe and what we do.

Secondly, as citizens have grown increasingly informed, they have lost their inferiority complexes in relation to experts. They want to take control of their own lives. This is evident in the case of science.<sup>83</sup> Citizens are becoming involved. More and more of them are realizing that if they cannot grasp scientific debates and relinquish their right to weigh in on the outcomes of scientific research, democracy itself will be bled white. They understand the risks arising from the development of science and technology and are no longer so inclined to see them simply as the “collateral damage” of progress. They no longer want to entrust to “experts” the right to

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<sup>83</sup> A detailed account of these changes can be found in Richard Sclove, *Choix technologiques, choix de société*, Éditions Charles Léopold Mayer/Descartes et Compagnie, 2004.

assess these risks in their place. They have renounced the illusion of expert neutrality and consensus, preferring debates in which the different sides confront one another.

This comparison between science and market economics is not arbitrary. Both played an essential role in building the modern world.<sup>84</sup> It is precisely because they transformed the world that they must now be reoriented. The same citizens who have called science into question are tired of the economic experts on television, the radio, or newspapers. They sense that this conventional wisdom, which must be repeatedly readjusted to match reality and fashion, fails to address the fundamental issues and provides no long-term direction. Citizens alone can blaze new trails.

### *Taking the First Steps*

Transition is the major challenge of systemic change. To imagine two different systems is not that hard; to figure out how you get from one to the other is far more challenging. In the realm of oeconomy, a few first steps have already been taken. I have described several already. The danger now is that, because we do not yet have a comprehensive vision, they will remain marginal and feed the illusion that we can dispense with radical change. But if they are integrated into a global perspective, they will appear as the first steps towards change and will serve as proof that change is possible. They must be bundled together, so that we can see the connections between different elements, such as: reforming the way economics is taught in high school and at university; creating a corpus of international law for large companies; modifying the way in which financial middle-men are paid; creating a carbon currency; labeling products with their “material and energy” composition; modifying intellectual property law; establishing territorial economic accounting; taxing the consumption of non-renewable resources instead of

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<sup>84</sup> See [www.alliance21.org](http://www.alliance21.org).

taxing work; modifying the rules for nominating and compensating the heads of large companies; encouraging whistle blowing; writing the principle of responsibility into constitutions; evaluating the ecological debts of the world's regions; defining international rules for sharing and managing natural resources, establishing and publishing measures of well-being; and founding a new international monetary order.

This list, which has a deliberately catch-all feel to it, is designed to illustrate the sheer diversity of discrete actions, each of which is within our grasp. Simply combining and coordinating them would represent a great step towards oeconomy.

## **Conclusion: Defining Oeconomy's Specifications**

Based on what has been previously said, we can now propose a definition of “oeconomy”:

“Oeconomy is a branch of governance. Its purpose is to create actors, institutional arrangements, processes, and rules that seek to organize the production, distribution, and use of goods and services in ways that ensure humanity a maximum degree of well-being through the optimal use of technical capacities and human creativity, while being unwaveringly concerned with preserving and enriching the biosphere and with conserving the interests, rights, and capacity to act of future generations, under conditions of responsibility and equity to which all can adhere.”

I propose to flesh out this definition in the second part of this book. Let me briefly comment on each phrase:

### **1. Oeconomy Is a Branch of Governance**

Oeconomy belongs to the set of rules that societies create to ensure their survival, their fulfillment, and their cohesion. The basic principles of governance apply to it: oeconomy must be legitimate; it presumes responsible behavior; its rules must result from democratic decision-making; it rests on partnerships between different kinds of actors; it requires a clear delineation of different management levels; and it acts on a territorial basis.

### **2. Oeconomy Organizes the Production, Distribution, and Use of Goods and Services**

From the standpoint of governance, oeconomy has no goals that are uniquely its own. It does, however, have its own field of action: the production, distribution, and use of goods and services. It must thus characterize these various goods and services according to their nature and purpose, and define the systems of governance that are suited to each.

### **3. To Do This, Oeconomy Creates Actors, Institutional Arrangements, Processes, and Rules**

The art of oeconomy lies in crafting institutional arrangements, i.e., the organization of actors (and relationships between actors) who will make optimal use of scientific and technological advances to combine the available production factors (or create new ones) in order to create a supply of goods and services and to ensure their distribution in keeping with a given society's goals.

### **4. In Ways That Ensure Humanity a Maximum Degree of Well-being**

Oeconomy's goal is not the relentless development of commercial goods and services, but well-being, which depends as much on the quantity of consumed goods and services as on the modalities of their production and distribution, and on the circumstances in which the activities of producing, distributing, and using them place each member of the society.

### **5. While Being Unwaveringly Concerned with Preserving and Enriching the Biosphere**

The rule that human activities cannot consume more than the biosphere can reproduce imposes itself on oeconomy as an absolute constraint. Today this rule is not obeyed, and humanity must now urgently find a way to bring it back into compliance. Oeconomy's rules and mechanisms, such as currency and the price system, must without fail follow from this principle. The biosphere must not only be preserved in quantitative terms but enriched in qualitative terms. Production processes and the development of goods and services must be evaluated according to these criteria.

## **6. While Conserving the Interests, Rights, and Capacity to Act of Future Generations**

Oeconomy treats future generations as full legal subjects. Time is not fungible. The present, the medium term, and the long term are three distinct horizons. Oeconomy's rules place these three horizons on the same level.

## **7. Under Conditions of Responsibility and Equity to Which All Can Adhere**

Oeconomy's actors are personally responsible of the long-term impact of their choices, independently of their intentions. Their responsibility is proportionate to their power.

Oeconomy's rules must be deemed legitimate by all. They must reflect society's goals, be understandable and accepted, and be equitably implemented by trustworthy leaders.



## **Part II: The General Principles of Oeconomy**

## Chapter 1. Oeconomy: A Branch of Governance

Oeconomy's specifications, as we have just seen, begin with the assertion that it is a branch of governance. This claim will guide the ideas advanced in part two of this book.

As we explained in part one, governance refers to the rules created by a society to ensure its survival, its fulfillment, its longevity, and its adaptability. To use the language of biologists, every living being—and society *is* a living being—must, if it wants to survive, achieve internal cohesion (up to a point), be able to protect itself, and maintain a harmonious relationship with its natural environment. In human societies, these rules must be conscious and the outcome of learning processes. In this way, human societies distinguish themselves, say, from ant colonies.

Oeconomy's goals—ensuring humanity a maximum degree of well-being, enriching the biosphere, and preserving the interests, rights, and capacity to act of future generations, under conditions of responsibility and equity to which all can adhere—are shared by governance of all forms of. Nor does oeconomy stand out in the way that it implements these goals: all forms of governance involve ideologies, concepts, actors, institutional arrangements, processes, and rules. Oeconomy's specificity lies only in its field of action: the production, the distribution, and the use of goods and services.

Governance is an eternal question. Some of humanity's most ancient texts are essentially treatises on governance, laying out the principles of wise government as Deuteronomy does for the Hebrews or Hammurabi's Code for the Babylonians. Writing, accounting, and currency were designed to make transactions safe and contracts lasting. As such, they are acts of governance. From the time of Solon, the Athenian legislator, through Aristotle to the medieval moralists, the

problem of wealth and its equitable distribution has been constantly debated.<sup>85</sup> The Enlightenment and early liberal thinkers, such as Locke, Hume, and Smith, were the first to argue that state intervention should be severely limited. They believed that the rising bourgeoisie was better able to organize production in the interest of the common good than were traditional laws, customs, corporations, and bureaucracies. But let us not overlook the essential point: these ideas, even when they assert the primacy of the individual over society, are nonetheless theories of governance.

The *form* of governance has, however, varied over time. Its mechanisms are shaped by ecological, technological, and cultural contexts,<sup>86</sup> as well as by each society's unique history. The evolution of this form is a slow process *par excellence*, as governance relies on a culture's most stable attributes, such as its conception of the relationship between the individual and society and attitudes towards authority. Governance evolves on the basis of previous social achievements. But it must also react to external inputs and new technological opportunities and craft responses to all the novel challenges that society encounters. Like culture and language, it is formed through a process of hybridization. One implication of governance's definition is that each society, at a particular moment in its history, must invent the form of governance to which it is best suited. Consequently, we tend to praise governance as "appropriate" rather than "good." Even so, this invention occurs by applying a handful of basic principles, which are governance's "constants."

Another factor shaping governance's evolution, and which also pertains to oeconomy, relates to a society's size and its interaction with other societies. The historian Fernand Braudel

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<sup>85</sup> Matthieu Calame's book *La tourmente alimentaire* includes a well-documented discussion of these debates in the context of ancient rural societies.

<sup>86</sup> For an overview on cultural differences, see Michel Sauquet's *L'intelligence de l'autre*, Éd. Charles Léopold Mayer, 2007.

argued that the economy consists of three levels: the domestic economy, the national market economy, and the world economy. Governance has three levels of its own: local management, management by the state, and world governance.

For classical economics, these three levels correspond to different degree of commercial intensity. As a society's nature, size, interactions with the outside world evolve, the way it is governed and the respective importance of each level must change accordingly.

The crisis in contemporary governance is a result of the sluggishness with which its forms and institutions evolve. We are the heirs, but also the prisoners, of institutions and concepts forged over the centuries. The dominant forms of governance in economically developed countries—the state, representative democracy, and the market economy—have a long history. Our doctrines and institutions were not built over decades or even centuries, but over millennia. Given that governance's task is to ensure a society's survival and stability, it is only natural that the institutions and ideologies it creates are stable. Ideologies tend to create actors and institutions for whom their premises are self-evident. In part one, we encountered many examples of this trend in economic thinking.

Governance's inertia only becomes a problem when society enters a phase of rapid change, opens itself to new opportunities, confronts new challenges, shakes up its priorities, and finds itself involved in new relationships which must be managed on a different scale. We have been in such a phase for at least a century. In these situations, we tend to turn to yesterday's ideas and even older institutions to conceptualize and prepare for the future. In a rapidly changing society, the forms of governance built over previous centuries cease to be relevant to the task of ensuring society's survival, which, after all, is governance's primary goal.

In such circumstances, history can help us to deconstruct truths that seem self-evident and to rediscover the particular circumstances (be they cultural or technological) in which one course was chosen over another. We must return in short, to the original fork in the road. This was what we did in part one. States were established at a particular historical moment: in the West, after the Renaissance. Their consolidation gave birth to the Westphalian theory—a doctrine formalized by the Treaty of Westphalia of 1648, which ended the devastating Thirty Years War. This doctrine, still prevalent in international law, has thus been around for 350 years. In France, the state bureaucracy was first created by the Capetian kings: it began as a single “royal household,” but, over the centuries, new corps of top civil servants were created, increasingly distinct from the aristocracy, and the public treasury split off from the royal treasury. The division of the state bureaucracy into various institutions endowed with specific areas of competence occurred in tandem with the gradual emergence of the modern university, which distanced itself from theology and organized itself into distinct academic faculties, each devoted to a particular branch of knowledge. The Westphalian state and the modern university, first conceived by von Humboldt, are among the major European institutions emerging in the period between the seventeenth and the late eighteenth centuries. This period also witnessed the emergence of the modern corporation out of the commercial and manufacturing “companies” of the Renaissance. The economic theories of which we are both the heirs and prisoners reflect the state of the world at this time. Our multinational corporations obviously have little in common with eighteenth-century factories, anymore than our major retail chains resemble the Hanseatic League<sup>87</sup> or modern pension funds are similar to Renaissance bankers. Even so: our economy’s primary actors, our primary institutional arrangements, and the conceptual system that undergirds them all reflect society not as it is today, but as it was two hundred years ago.

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<sup>87</sup> The Hanseatic League was a confederation of German merchants created in the twelfth century.

How governance functions depends heavily on existing technology (and in this respect, too, oeconomy is just a special case of governance). Representative democracy illustrates this point perfectly. At the time of the French Revolution, for example, the constituent assembly debated how to divide the nation's territory up into departments. One criterion was that nowhere in the department could be further than a day's horse ride from the prefecture (i.e., the department seat). Even today, democracy depends on the elections of representatives who will meet in a capital city at a precise time. This practice is a direct legacy of the royal tradition of summoning delegates to approve taxes. Our representative systems still bear the mark of these earlier times. During the Middle Ages, political entities were too large for all free citizens to assemble in one place, as they could in ancient Greece; long-distance communication was difficult; the ability to write—the vehicle for transmitting thoughts and rules—was a specialized skill known to only a fraction of the population; and telephones and teleconferencing were inexistent, so the only way to reach agreements was to call a meeting. Representative democracy grew out of these constraints, and its basic features have changed little over the past two centuries.

It is not surprising that new communication systems would transform not only production and exchange, but other aspects of governance as well. Thanks to the internet, global civil society can attend international negotiations, which were previously reserved only to states and international institutions. Through media campaigns, it can also negotiate one-on-one with corporations, challenging their economic practices.

The change in the scale (and thus the nature) of humanity's impact on the biosphere is another major factor in the crisis of contemporary governance. We saw this in the case of oeconomy. Consciousness of the finitude and fragility of the biosphere will force oeconomy to

reorganize. It is also a major factor in the imminent reorganization of the scale, methods, and priorities of governance. During the eighties, humanity finally understood that it could destroy itself not only through war, but simply by pursuing its current form of development. Yet twenty years later, “sustainable development” is still an oxymoron, as eighteenth and nineteenth-century institutional arrangements and mental habits are still firmly in place.

A scientific system resists with all its force before giving way to a new theory. Hence the saying: “Truth never triumphs; rather, naysayers just pass away.” This insight is also valid for governance and oeconomy. The current system, which relies on the institutions that gave birth to it and from which it derives its *raison d’être*, will resist with all the strength that it can muster before it yields to new institutional arrangements. It was centuries before feudalism surrendered to the modern state. Today, the Westphalian state has mounted stiff resistance to genuine world governance. One of the most effective ways to resist change is to fine-tune or jerry-rig the existing system. Take the example Ptolemaic astronomy. It was based on the premise that the sun and heavenly bodies follow a circular orbit around the earth. Unfortunately, in reality, planets do not obey such elegant geometric rules. In Greek, after all, “planet” means “errant star.” Over the year, they roam through the sky, following many a bizarre path. Did this lead Ptolemy’s disciples to reconsider their assumptions? Not at all. Instead, they fiddled with their postulates, hypothesizing a complex system of mini-orbits that could explain the planets’ non-geometric trajectories. This way, they avoided having to call their theory into question. There is no real difference between the way in which Ptolemy’s disciples tried to save their theory and the way in which we attempt to adapt our economic system to the environmental crisis through such mechanisms such as externalities and shadow prices, which hope to manage the biosphere through a market-oriented logic that is completely alien to it. Our systems of thought and

institutional arrangements remind me of the phenomenon of supercooling in physical systems, when matter remains in a liquid state even when temperature and pressure levels should lead it to solidify. Supercooling is an example of a metastable equilibrium: while everything about it appears stable, in reality it is a highly unpredictable condition, in which liquids can become solids at a moment's notice. Similarly, political and economic systems only adapt to new circumstances through repeated crises, which suddenly call the existing and outdated equilibrium into question. But the important thing when a crisis strikes is that alternatives exist. European ability to emerge from the rubble of the Second World War is a good example.

Our current economy is an interesting example of “supercooling.” Our mental habits and the institutional arrangements that underpin them are poorly adapted to the real conditions in which our society finds itself. In part one, I provided many examples of this problem. We are able to produce in greater quantities with ever-increasing efficiency, yet we lack a system of redistribution that allows all human beings to benefit from our collective prosperity. The cohesion and stability of our system rests on the hypothesis of indefinite growth, an assumption that is completely at odds with the planet's finite resources. The once sophisticated institution of the company has become self-referential and completely out of touch with society's most pressing goals. While finance should prepare us for the future, our financial system has no other concerns than short-term gain. We levy taxes on work, despite the fact that it is natural resources that are scarce. Meanwhile, there is no serious momentum for change. Since the fall of the Berlin Wall, no serious alternative to the prevailing system has been proposed.

In Europe, two world wars were needed to overcome nationalism—i.e., the institutional arrangements of the past. At present, must we wait until change “takes us by the throat”<sup>88</sup> before we get to work transforming the economy's fundamental concepts, rationality, and institutional

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<sup>88</sup> Winston Churchill said: “We must take change by the hand or rest assuredly, change will take us by the throat.”



arrangements? Of course not. Sooner or later, the deterioration of the biosphere through irresponsible extraction and the ultimate depletion of natural resources, the impoverishment of biodiversity, the reckless release into nature of artifacts (such as chemical and biological products) that our system is not able to absorb, the collapse of the international monetary system, the climate change, the fierce competition to control energy sources, and tensions caused by the migrations of people fleeing old and new forms of poverty will trigger uncontrollable chain reactions. Change will take us by the throat, but by then it will be too late. Let us follow Churchill's advice, and take change by the hand—or, at the very least, be prepared to make the most of the next crisis.<sup>89</sup>

Neither governance nor oeconomy requires us to invent an entirely new system out of nothing. New answers can often be found by reconsidering old ideas. In some cases, old ways of organizing can be blended with new technological systems. For examples, there are new forms of corporate organization that are the offspring of preindustrial models and the Internet. Similarly, while the principle of pooling, which is central to social economy, seemed outdated a few years ago, it may, in global age, be in the process of being born anew while offering important insights in our current crisis.<sup>90</sup> Furthermore, societies have always proved resourceful at inventing ways to manage their territories, and particularly their energy supplies, at a local level whenever equilibrium between the community and its ecosystem becomes a matter of survival. This wisdom, which was forgotten in an age devoted to the relentless pillaging of the planet's fossil resources, may soon be seen as a valuable resource. Heeding such knowledge is not a return to the past, but a reinterpretation of it in light of new technology and new forms of interdependence.

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<sup>89</sup> Note from December 2008: "To make the most of the next crisis": And now it's here.

<sup>90</sup> Thierry Jeantet and Jean-Philippe Poulno, eds., *L'économie sociale, une alternative planétaire*, Éd. Charles Léopold Mayer, 2006.

The same can be said of organic agriculture, which is a response to the eternal concern for equilibrium between man and his environment, but from the standpoint of new knowledge and technologies.<sup>91</sup> Eugeniusz Laszkiewicz explains for instance that the economic transformations that occurred in Poland, particularly in the rural areas, in the 1990s would not have been possible without agreements between bank cooperatives, farming cooperatives, and local authorities—the resurgence of social capital that had been buried, ready to yield new fruits when conditions had once again become favorable.<sup>92</sup>

The past is a well from which one can draw liberally.

### **1. The cost of regulation and its application to economy**

Another age-old problem relating to governance is the cost of regulation. In order to survive, any society must bear – technically and socially - the cost of its own regulation. Rising costs may well jeopardize its political, economic, and social system.

All regulations have costs, be they financial, ecological, or social. Economy cannot sidestep this necessity. When these costs begin to rise, it often means that the existing regulatory forms have ceased to be well adapted to society. Beyond a certain threshold, taxes become unbearable and the system begins to collapse under its own weight. It can no longer afford to regulate itself. This can occur when the system grows too quickly or becomes too complex; when the ruling class expands too much, when its needs must constantly be satisfied, and when its internal cohesion is threatened; or when it is no longer possible to raise the tribute or taxes needed to preserve the system from external threats, subjected peoples, or to preserve the biosphere itself. As the mathematician and economist Georgescu Roetgen argues, any system is

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<sup>91</sup> Matthieu Calame, *Une agriculture pour le XXI<sup>e</sup> siècle*, Éd. Charles Léopold Mayer, 2007.

<sup>92</sup> Jeantet and Poulnot, *L'économie sociale, une alternative planétaire..*

invariably subject to the dynamics of the biosphere and the laws of thermodynamics. A closed system faces greater entropy, leading it to degenerate. The biosphere as a whole maintains and even increases its equilibrium because of a continual flow of solar energy. The costs of regulation and governance can be seen as the price to pay for “keeping order.” In this case, order does not mean law enforcement, but a thermodynamic principle: the preservation of political and administrative structures, the financial system, communications, weights and measures,<sup>93</sup> the social order, linguistic harmony, relationships with the outside world, and so on.

The fall of the Roman Empire, after four centuries of imperial rule covering a significant portion of the earth, continues to haunt us. We know that the late empire was overcome with structural fiscal problems that undermined it internally, exhausted its resources, and made it vulnerable to the barbarians at its gates. At times, these invaders were even welcomed as liberators.<sup>94</sup> The empire’s equilibrium depended on its ability to acquire outside resources through conquest. When this outside flow was cut off, the empire gradually imploded. Seen in light of contemporary communication systems, the Roman Empire’s size at the pinnacle of its power was extraordinary.

Maintaining communication routes, guarding borders, and preserving commercial systems became so costly that the center could only survive by increasing taxes on the dominated regions.

I know that a comparison is not an argument; I realize that the American empire at the dawn of the twenty-first century only vaguely resembles Trajan’s or Marcus Aurelius’ empire.

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<sup>93</sup> Thierry Gaudin, a noted futurologist, points out that in our society, the cost of maintaining the entire system of measures is greater than that of research and development.

<sup>94</sup> See, for instance, Lucien Jerphagnon’s *Histoire de Rome, les armes et les mots* (Tallandier, 2002). Historians of Rome have paid increased attention to the processes of degradation leading to its fall. For a thermodynamic interpretation of the process, see, for example, Marcel Lacroix, *La première et la deuxième loi de la thermodynamique* (Sherbrooke University, 1997).

Even so, it is essential to consider the costs of governance and of oeconomy in particular. Most of history's peasant revolts occurred when ruling classes sought unreasonable tax increases because of greed, military necessity, or a concern for public order.<sup>95</sup>

The Soviet Union did not succumb to a foreign enemy's hostile forces. Sclerosis and the unbearable weight of its own military-industrial complex made it implode.<sup>96</sup> However weak they may be, African states are disproportionately large in relation to their impoverished populations. Their survival depends on a constant infusion of international aid. This cost must be assessed in relation to the service it provides and to what society can bare.

At first glance, a decentralized market economy would appear to be a cheap and efficient system of social regulation. A multitude of decentralized decisions bring supply in line with demand, guaranteeing social harmony. Yet upon closer examination, this outcome is far from certain.

Rising regulatory costs can be passed onto society in two ways. First, the entire system can be allowed to deteriorate. This approach sends the bill for current regulatory costs to future generations. Secondly, rising regulatory costs can be paid for by making goods and services more expensive. At present, both approaches are taken.

The first approach is evident in our effort to preserve social cohesion through indefinite growth, while allowing our biosphere to deteriorate indefinitely. Any time growth stalls, we fear a social crisis. Maintaining growth must ultimately be viewed as a regulatory cost. We never even ask if growth in fact makes us happier. We assume it is necessary to the system's stability. Its function is identical to that of the Roman Empire's incessant military campaigns. It is a condition of equilibrium and survival. But a time invariably comes when conquests are no longer

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<sup>95</sup> Hugues Neveux, *Les Révoltes paysannes en Europe XIVE-XVIIe siècle*, Albin Michel, 1997.

<sup>96</sup> Andrei Gratchev, *La chute du Kremlin*, Hachette, 1994.

possible. The Empire becomes increasingly expensive to manage. Has growth, like Roman conquests, become unsustainable? One could argue that, over the past twenty years, consumption of energy and natural resource has been decoupled from economic growth. True, but in a very imperfect way. The overall energy and natural resource consumption continues to grow.

The resulting increase in entropy is easily measured by the fact that complex molecules arising from organic chemistry, which are found in plants or gas, are constantly transformed into simpler molecules, particularly carbon dioxide (CO<sub>2</sub>) at a much faster rate than solar energy and photosynthesis, through the reverse operation, can transform carbon dioxide into complex biomass molecules. Thus, strictly from the perspective of physics, the transition from an orderly to a chaotic world is occurring before our very eyes—and by the labor of our own hands.

The other way of measuring regulatory costs is by considering their impact on the prices of goods and services. Right now, transaction costs are rising with no end in sight. In *La mondialisation et ses ennemis* (Globalization and its Enemies),<sup>97</sup> Daniel Cohen analyzes the elements that make up the price of a pair of Nikes that sell for \$70 in Paris or New York. Those who make the shoes are only paid about \$2.75—next to nothing. If one includes all the manufacturing costs (machinery, raw materials, dividends on investments, etc.), the pair of Nikes still only costs about \$16. Where does the remaining \$54 come from? \$53.50—i.e., half the total price—goes to distribution. The rest goes towards marketing, advertising, and operating costs.

The first lesson that Cohen rightly draws from this example is that most of the shoe's value, despite being manufactured in the South, remains in the North. But one could see the mark-up as an enormous transaction cost between the producer and the consumer. This transaction costs, of course, does not dissolve, like carbon dioxide, into the atmosphere. It is

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<sup>97</sup> Daniel Cohen, *La mondialisation et ses ennemis*, Grasset, 2004.

redistributed, primarily into service sector jobs. Yet it does provide us with an approximate idea of the management costs involved in satisfying a need.

For a number of years, the global economy has been driven by American consumption. This can happen because simultaneously there is a permanent flow of dollars and petrodollars back into the United States, since capital-owners—individuals, institutions, or states—trust the United States to manage them. They are bound together as tightly as a hangman’s noose. Like gamblers who refuse to fold lest they lose everything they have, those who put their savings into the American economic and financial system must continue to play: a mass withdrawal would bring the system to its knees, and they would lose everything they had invested. Yet the costs of keeping the system running are colossal. As I previously pointed out, in the United States, 30% of corporate profits are made by financial operators. For a system that is presumed to efficiently connect savings to financial demand, these transaction costs are incredibly high.<sup>98</sup>

The two billion dollars that the United States invested in the Iraq war are another way of measuring the costs of maintaining an empire. Despite its dynamism, this cost is even too high for the United States itself, which finds itself increasingly dependent on the outside world. One could reasonably object that this analysis is one-sided, as the United States is both the world’s suction pump and pressure pump: Americans make the whole system work, so it is no fairer to ask the US to pay for itself than it is any bureaucracy. Even so, if the rest of the world was to decide, at a given moment, that the United States’ financial requests were too expensive, the system would implode. Such a possibility might even be not that far away.<sup>99</sup>

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<sup>98</sup> Note from December 2008: The acceleration of the Fall 2008 crisis only confirms this diagnostic. The Chinese government was forced to continue to buy American Treasury bonds lest the dollar should collapse, thus eliminating their main reserves, which consist primarily of dollars.

<sup>99</sup> Note from December 2008: Since this chapter was written in 2007, the moment of this implosion has become considerably closer.

Daniel Cohen ultimately rejects the Rome-United States analogy, arguing that with the latter, unlike with the former, prosperity arose from a capacity for invention. I do not entirely follow his reasoning. The United States, and to a lesser degree Europe (with what is known as the Lisbon strategy<sup>100</sup>) claim that they will be able to maintain their prosperity in the future thanks to the competitive advantage of their technological skills. I have already shown why, in the case of China, this belief is illusory. Furthermore, this so-called technological skills depends solely, as the bitterness of intellectual property negotiations demonstrates, on the privatization of knowledge—knowledge which clearly should be allowed to circulate freely.

The cost of this stranglehold is that it deprives others of their right to develop. This deprivation is further evidence of oecconomy's existing management costs. Disruptions will inevitably occur. These may not involve a Roman-style fiscal crisis. But they could involve a general revolt against intellectual property laws. If such an insurrection occurs, drones and laser-guided bombs will be as impotent as in Iraq. Put differently: an economy that wastes scarce natural resources while imposing restrictions on abundant resources (knowledge and the diffusion of innovation) is far from being optimal. There is little chance it will survive.

In part one, I mentioned how frequently capitalism's imminent demise has been predicted, and how, like a modern phoenix, it has repeatedly risen from the ashes to adapt itself to new circumstances. Predictions of a new systemic crisis may thus leave many unmoved. In one of his books, Paul Thuillier has his imaginary narrator, writing in 2081, express astonishment that late twentieth-century Western society, despite its knowledge and scientific achievement, was unable to predict the "great implosion" that, in his story, occurred between

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<sup>100</sup> The Lisbon Strategy refers to the major economic and development policy program of the European Union between 2000 and 2010. Its goal is to make the European economy "the most competitive and dynamic in the world."

1999 and 2002.<sup>101</sup> “Let’s be honest,” he adds, in a long interview for the journal *Les humains associés*, “it is possible that the system could live for a while longer. But I am convinced that we are at the end of a cycle and that a serious crisis awaits us. There are moments when change is particularly sudden and brutal.”

What I find striking is that so many distinguished specialists refuse to see reality as it is. Perhaps this is typical of periods of crisis. In 1788, French aristocrats applauded Beaumarchais’ *The Marriage of Figaro*, but refused tax reform.<sup>102</sup> Bernard Lietaer, in his report to the Club of Reform, says that the dollar is very likely to have a “hard landing.”<sup>103</sup> Since 1971, when its gold convertibility was suspended, the dollar has been international trade’s primary currency, even despite the fact that it is managed by the United States alone.<sup>104</sup> In any other country, the international scale of the combined American deficits—the budget deficit and the trade deficit—would have provoked a major financial crisis. But Chinese, Japanese, South Korean, and Saudi holdings of US treasury bonds are so extensive that none of these countries has anything to gain from seeing their breathtaking savings vanish into thin air. But for how long can this continue?<sup>105</sup> In early 2008, the subprime crisis and the dollar’s collapse seemed to suggest that the whole system was about to go belly up. And what would happen if poor or emerging countries one day decide to nationalize private investments made by transnational firms from the so-called developed countries, and refuse to pay their debts as long as rich countries don’t pay their own, “ecological” debts?

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<sup>101</sup> Pierre Thuillier, *La grande implosion: rapport sur l’effondrement de l’Occident, 1999-2002*, Hachette, 2002.

<sup>102</sup> Note from December 2008: The systemic crisis has occurred. One need wait until 2084 to express surprise at the incredible shortsightedness of banking and financial leaders, or at the naïveté with which Alan Greenspan, acting like a guru, declared that he had overestimated the market’s capacity to regulate themselves.

<sup>103</sup> December 2008: What progress we have seen recently: The largest banks have begged states for assistance, and their leaders, like great lords, have renounced their annual bonuses—even as they lay off workers left and right!

<sup>104</sup> Bernard Lietaer, *Monnaies régionales*, Éd. Charles Léopold Mayer, 2008.

<sup>105</sup> December 2008: China, while supporting the dollar, has proposed to its Asian neighbors that exchanges be denominated in their own currency rather than in dollars.



## **2. Oeconomy Must Seek Inspiration from Governance's Fundamental Principles**

Governance can be considered from several angles: its general goals (how does one ensure society's cohesion, human development, and peace?); its institutional arrangements (the nature and functioning of various institutions, kinds of political regime, checks and balances); its actors (citizens, bureaucrats, political personnel, companies, parties, etc.); its realms (education, defense, health, housing, solidarity, the environment, and so on); its scale (from local to global); types of goods and services delivered (commercial and non-commercial, public and private); its mode of action (budgets, norms, redistribution); evolutionary dynamic (forces of inertia, reform strategies, adaptation processes); general principles (legitimacy, democracy, the relevance of government institutions, the shared production of public good, the articulation of various scales of governance). The same can be said of oeconomy, which is a specific branch of governance.

This variety of possible perspectives has led to a nearly limitless expansion of specialized disciplines, ranging from company management to the organization of the labor market and the analysis of production systems, via business law, environmental economics, global economic regulation, industrial policy, local economics, the dynamics of innovation, and currency theory.

In keeping with my intuition, I decided it would be most useful, in conceptualizing a twenty-first century oeconomy consistent with the specifications I laid out, to concentrate not on what is unique to economics—the production and distribution of goods and services—but, rather, on the fact that economics is only one branch of governance—one that obeys the same general principles and pursues the same goals.

I will also, naturally, need to take into consideration what one might call the substance of economics: the various factors that are incorporated into the production process and the goods

and services that are offered to society. “Inventing a twenty-first century oeconomy” cannot be done by waving a magic wand. It is the outcome of trial-and-error and debate. What follows is a modest contribution to such an effort. I personally am very far from proposing a new economic doctrine that could replace the one that prevails today. Rather, I have tried to let the reader participate in my own quest, as I test the fruitfulness (which strikes me as real) of this unusual starting point. Since these “general principles of governance” will serve as my guiding thread, let me say a few words about their origins and contents. They grew gradually out of forty years of professional experience, first as a practitioner (as a French civil servant, between 1968 and 1988), then, for twenty years, as an observer and actor (as the director of the Charles Léopold Mayer Foundation for Human Progress, which has given me the rather unique opportunity to observe—and, at times, to help change—the way society is managed and governed at different levels and in different locations).

My first conviction, drawn from this experience, is that governance is an eternal question, central to every society’s survival. Across the ages and on every continent, the goals pursued by governance are strikingly similar. Their concrete modalities, however, vary greatly in relation to cultural context, the challenges each society faces, available technology, the degree of interdependence, the fragility of the natural environment and the constraints it imposes on society (i.e., the roles played by water and energy in social organization), and, last but not least, the circumstantial factors (such as the relative lucidity of governing elites) which make human history unpredictable.

My position on governance is thus a little like that of anthropologists of law like Etienne Le Roy (whose approach I admire), who seek law’s unvarying functions beneath the infinite variety of its concrete forms in different societies.

It is thus through a resolutely comparative approach that I discovered the extent to which, in different societies and at different levels, basic problems are similar, which in turn allowed me to gradually identify five general principles of governance.

The first principle concerns power's legitimacy and the degree to which governing practices are culturally rooted. For a society to function, people must consent deeply to way in which they are governed. Lu Jia, the Neo-Confucian philosopher, made precisely this point in his *New Political Principles*, written for the edification of the first Han emperor.<sup>106</sup> For consent to be deep-seated, authorities must be deemed trustworthy; restrictions on private freedoms must be clearly limited to what is justified by the common good; and social organization must rest on a shared ethos that everyone—the powerful as well as common folk—practices as much they preach it.

The second principle is respect for democracy and citizenship. All must see themselves as full-fledged stakeholders in a common destiny. By democracy, however, I'm are not necessarily referring to the Western conception of it. Collective decision-making processes aimed at producing consensus represent the democratic ideal far better, in most cases, than the tyranny of the majority. Everyone wants, as the Africans put it, to make sure that his or her "mouth is there." In other words, we all want our point of view to be heard, respected, and at some level acknowledged. As for citizenship, we mean it in the Greek sense: not as an entitlement to rights resulting from membership in a particular community, but as a balance of rights and duties and of powers and responsibilities. These alone can ground community membership. Democracy and citizenship mean that power can never be exercised with impunity or in the absence of popular consent.

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<sup>106</sup> Lu Jia, *Nouveaux principes de politique*, Zulma, 2003.

The third principle is that of multi-level governance. By multi-level, I mean the bonds between the local and the global, between different levels of governance, and between the individual and the world. Governance is ultimately nothing but a vast structure through which individuals—their passions, their interests, their history, their hopes—are integrated into a world system comprised of human society and the biosphere. The integration of the individual into the world cannot happen in one fell swoop—i.e., by the immersion of the individual into an undifferentiated society governed by uniform rules. Governance organizes relationship between the individual and the world by a layering of governance levels, from one's immediate community to the planet as a whole. Yet grassroots communities can only be granted autonomy to the degree that global social cohesion is not thereby threatened. Various kinds of regulation can achieve this. Fitting the parts into the whole is one of oeconomy's oldest meanings. "Animal oeconomy" refers to the arrangement of various functions that procure an animal's overall well-being. This organic metaphor is one that political and economic thought has never been able to completely abandon. Today, companies offer examples of multi-level integration, through which an entire supply chain, extending from workshops and basic production units to the system as a whole, is integrated into a single process. Devolving specific roles to each governance level and articulating these levels into a coherent whole is one of governance's most distinctive characteristics.

The fourth principle is the requirement that a society's major actors and institutional arrangements be competent, relevant, and efficient. Let us reflect for a moment on the concept of institutional arrangement, which we will consider in depth later on. Governance is put into practice by actors, who themselves are caught up in a network of relationships. These relationships are generally stable. Stability, which is essential to society's survival, is achieved

through rules and training. This is the complex edifice, the heir of a rich historical legacy, in which governance still operates.

I prefer to speak of institutional arrangements rather than of institutions, as the term “institutions” restricts and ossifies the phenomenon, while that of “arrangements” captures its elasticity: when one pays too much attention to institutions, the state is conflated with governance *tout court*, and the company is assumed to encompass the entire production process. Yet these institutions, like animal or plant species, are neither self-evident nor monolithic. They are not self-evident because they are the outcomes of particular historical processes; nor are they monolithic, because institutions are not homogeneous but riddled with contradictions. Moreover, an institution’s internal functioning can be analyzed in similar terms as relations between institutions. The notion of institutional arrangements emphasizes the deep continuity between each institution’s internal structure and inter-institutional relations. What matters for governance is that institutional arrangements fulfill the tasks that they have been assigned. Consequently, an institutional arrangement must be evaluated in terms of its relevance: that is, in terms of its spontaneous ability to accomplish the tasks that it has been assigned.

The fifth principle, finally, is cooperation and partnership. All actors must be able to work together for the common good. Governance organizes the relationships and cooperation between various kinds of actors and between different governance levels, according to commonly agreed upon procedures. It matters little whether these procedures are codified into rules or are simply established through habit and training.

### 3. Governance and Oeconomy in the Age of Globalization

Governance is naturally suited to operate at the level of relationships based on interdependence, or what we might call “communities of destiny.” Interdependence between societies and, at a planetary level, between humanity and the biosphere has become irreversible. This is the very definition of globalization. Our solidarity is physical even before it is moral. We are each dependent on those around us. The planet itself has become our hearth—our *oikos*. The implications for governance are enormous, not least because the term’s traditional meaning has changed. In “Old Europe,” governance was usually confined within national boundaries and was often identified with the state. In France, the identification nation and state has historically been very strong, as the idea of the republic “one and indivisible” suggests. As a result of these historical traditions, the idea of a “community of destiny” seems, in Europe at least, so self-evident that it barely needs mentioning.

As for economic globalization, it has been around for some time. The great Dutch and French “Indies” companies were already intercontinental operations three centuries ago. Openness to foreign trade was as great in 1900 as it was in 1990. All the same, things have clearly changed to a significant degree. We like to think of our major corporations as “national champions.” The idea that the internal market will launch our champions onto the world market is largely taken for granted. In 2006, the merger of two major steel corporations, Mittal and Arcelor, dominated French headlines. Yet neither company had headquarters in France. The Indian “conqueror,” Lakshmi Mittal, was in fact British—yet its corporate headquarters was not even located in the European Union. Arcelor was created through a series of mergers, including that of the two French steelmakers, Usinor and Sacilor, which themselves, over the decades, had absorbed dozens of competitors. But Arcelor’s CEO was French. Nothing more was needed for

Arcelor to be a “national champion.” We still think in terms of “national communities of destiny.” Despite our increasing engagement with the world and all the concession of sovereignty we have made to the European Union, we stubbornly cling to our nation-states, seeing global society either as an abstraction or as a market to be conquered.

We still think of the “international order” and of world governance in terms of negotiations between sovereign states, as much when it concerns international security as when it relates to world trade. Lumping together existing communities is insufficient to the task of creating higher-order communities. One of governance’s major functions—and the same applies to oeconomy—is to create new communities, not merely to manage existing ones. Consequently, whatever rules one would like to see oeconomy implement (it should be clear that I am not a strong believer in globalization premised on neoliberalism), governance falls short of one its core duties when it treats the planet as something else than its domestic sphere, and when it fails to make establishing a global “community of destiny” as its primary responsibility. This community’s equilibrium must be conceived from two perspectives: equity and solidarity. The practical implications of this position will be considered later. For now, I will restrict myself to imagining what this system might look like when fully developed. This will make it possible to draw several important conclusions.

Such a community will inevitably lead to an equitable distribution of the planet’s natural resources. As I have already stated, a major redistribution of wealth between the world’s regions is underway. Let us try to imagine the world in the late twenty-first century, presuming it has survived our greed and negligence. The debate over unfair competition between rich and poor countries will long be forgotten. The illusion that Europe and the United States could continue to mobilize the lion’s share of the world’s resources through their technological superiority and

monopoly of intellectual property will have vanished long ago. India and China will have reacquired the status they had in the seventeenth century: they will possess their fair share of the world's wealth. Each country's ecological footprint will be in line with what the Earth can sustain, which is about eight times less than the current American lifestyle. Intangible resources will circulate freely. Is this scenario utopian? No: it is the necessary condition for humanity's survival. Consequently, the question that the early twenty-first century faces is that of conceptualizing an oeconomy that can pave the way for this transition.

If our lifestyles are made more harmonious with the basic principles of ecological justice, will international trade then cease to exist? Or, returning to its origins, will international trade be based entirely on each region's natural comparative advantages? I do not believe so. One has only to consider our present situation: with the notable exception of oil, most international trade occurs between OECD members. Europe is the best example.<sup>107</sup> The "Europe of fifteen," prior to the enlargement that brought in Central and Eastern European countries, already comprised 40% of international trade, but two thirds of member states' imports and exports went to or came from other member states.

Though economies of scale will occur less frequently than in the past (for reasons I shall explain shortly), some will continue to exist. Trade, insofar as it is consistent with a reasonable level of energy consumption, will continue to diversify the supply of goods and services. On the other hand, compared to today, a much larger share of production will occur at the local level, even as oeconomy plays a major role in establishing a united global community. In other words, oeconomy will almost certainly evolve along the same lines as other aspects of governance: a model emphasizing a single level—the state—will be replaced by a multi-level system in which

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<sup>107</sup> Daniel Cohen, *La mondialisation et ses ennemis*.



territorial management on the one hand and global management on the other will assume far more important roles than they did during the second half of the twentieth century.

We have traditionally considered homogeneity and unity lie “within” communities, and heterogeneity and otherness are found “outside.” “Us” vs. “them,” civilization vs. barbarism: such has been our dominant framework. The same reflex is apparent in the way we defend our so-called “national champions” (such as Arcelor): in these cases, we set domestic competition and social tensions aside, uniting around the defense of our national interests. Yet particularly in Europe, the demographic changes of the past fifty years and mass immigration have radically changed this outlook. Diversity and heterogeneity are now found at home. Unity is the destiny of humanity as a whole; diversity is something that can be found in every community. The same goes for oeconomy. Part of the population participates in the world market’s vast game. Some do so in an active and voluntary way: they are extremely qualified and mobile, and are able to take advantage of their mobility to their own career opportunities. Some do so in a passive and involuntary manner, simply by working for production units that compete on the world market. But an even larger share of the population participates in an oeconomic and social sphere that remains locally rooted, such as services for individuals, small-scale craftwork, or public services. In such circumstances, is there really a national or local “community of destiny”? This is a fair question. However, the existence of a global “community of destiny” is self-evident. It is apparent in the ecological imbalances that affect everyone—climate change, the decline in biodiversity, the depletion of fish stocks, etc.—and in the need to share scarce natural resources. As communities become less “natural” and “self-evident,” the question of oeconomy’s legitimacy—meaning both its rules and its leaders—must and will be asked with increasing intensity.

Oeconomy, like governance, must be seen as a conscious and deliberate “macro-regulation” of the world system. Each of its facets must serve an essential social goal. Oeconomy in no way sees itself as “natural law”; consequently, its conception of how the system should be regulated must be described. Its goal is that at the end of each historical cycle, society and the biosphere find themselves in a comparable or better state than they were at the cycle’s outset. As oeconomy’s definition reminds us, it seeks to “ensure humanity a maximum degree of well-being through the optimal use of technical capacities and human creativity, while being unwaveringly concerned with preserving and enriching the biosphere and with conserving the interests, rights, and capacity to act of future generations.”

To explain what we mean by a “better state,” we must describe the state of the system at moment  $T$ ; characterize its basic parameters; describe, during the cycle  $T$ - $T+1$ , what society does and how much well-being results; and, finally, describe the system at moment  $T+1$ . This means that oeconomic activity is not measured by flows of goods and services but by qualitative variations. From this premise, a number of consequences follow.

First, on their own, the direct consequences of economic activity offer too narrow a perspective. One must also consider indirect effects. Take the example of finance. It is not enough to describe the actions of bankers and stockbrokers; one must also consider the broader consequences of the “financialization” of the world. Individual financial middlemen are not responsible for these effects; their entire profession is.

Second, the tools through which we measure human activity in terms of flows, notably gross domestic product (GDP), which neglect changes in our resource inventory and the very quality of the system, are ill-suited for understanding oeconomy.

Third, globalization implies a regulation of the system at a higher level. In a few years, we have evolved from a need for local regulation to a need for global regulation.

Which components of the system must be taken into account to describe its regulation and its improvement between time T and time T+1? As I see it, there are three:

- Intangible, tangible, human, and natural “capital”: They are the result of centuries and even millennia of accumulation. Humanity’s future survival and prosperity depends on their maintenance and development;
- Individuals: Their values, passions, and spiritual, intellectual, and material resources.
- What one might call, by analogy with self-organized systems, society’s “emergent properties”: Its cohesion, its ability to adapt and to invent rules, and the existence of shared standards.

In our global bio-socio-technical system, coherence can be found, as it were, on both ends of the spectrum: in individuals, at one end, and in the system as a whole, on the other. Both levels involve multiple goals and the need to combine them. One of the challenges faced by governance in general and oeconomy in particular is the need to invent the “middle”: that which unites the actions of each individual to every other in a common act, and which ultimately keeps them in a state of equilibrium. This “middle” might be described as the intermediate level of integration. They are characteristic of governance.

#### **4. Art of Governance and its application to Oeconomy**

Governance is an art. What is the difference, one might ask, between a science and an art? With art, the proof, as they say, is in the pudding. I would now like to present four ways in which the art of governance can be applied to oeconomy: in reconciling unity and diversity; in

managing relationships; designing processes; and in combining different regulatory levels and forms.

### ***Reconciling Unity and Diversity***

The art of reconciling unity and diversity, cohesion and autonomy, results from governance's very nature: it is the art of living together, whether at the level of local communities or on the planet as a whole. Society's overall cohesion must be achieved by offering each of its members a maximum degree of freedom and autonomy. Any community, whatever its size, is pulled between these two needs: cohesion and autonomy. The art of governance consists in imposing on local communities no more restrictions than are needed for the sake of the common good.

One of the ways in which governance reconciles unity and diversity is by integrating different governance levels. I developed this point in detail in a previous book.<sup>108</sup> The basic idea is as follows. No social problem can be dealt with at a single governance level. The solution always depends on coordinating action occurring on different scales. The principle that should guide the coordination of various governance levels is active subsidiarity. According to this principle, the constraints that a "higher-level" collectivity (i.e., international institutions or a nation-state) imposes, in the interest of social cohesion, on "lower-level" collectivities (i.e., a region or a town) must be results-based rather than means-based. A "means-based" constraint is one that requires a goal to be met in a specific way, typically involving the implementation of a detailed set of rules. It thus places considerable restrictions on the freedom and autonomy of "lower-level" communities. "Results-based" constraints, however, lay out the goals that must be

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<sup>108</sup> Pierre Calame, *La démocratie en miettes* (see the chapter on "Relations between Governance Levels: Active Subsidiarity").

achieved to ensure social cohesion, but leave it up to the communities themselves determine how best to achieve these goals, particularly given their own needs and preferences.

The principle of active subsidiarity has yet to be applied in our own economic system. Take the example of the European Union. The European Commission has made the organization of the internal market its main priority. Its efforts to build Europe consist largely in increasingly arcane and fussy directives. Admittedly, the word “fussy” may not do justice to the work of European legislators, who never intended to regulate for regulation’s sake. However, unity has been consistently emphasized at diversity’s expense.

Even getting the European Commission to recognize a few basic principles—such as the right of services of general interest (SGI) to be shielded from market pressures and the acknowledgment that many social problems are poorly served by commercial models—proved a struggle. Fortunately, the “European social model” was too well established and beloved of Europeans to be thrown overboard simply because it contradicted the sacrosanct principle of free trade. Even so, not until the European Council approved the Lisbon Treaty in 2007 were services of general interest (SGI) placed on a constitutional footing. The European Commission’s 2006 report on “Social Services of General Interest in the European Union” was a notable turning point. After widespread consultation, it finally embraced the reality principle. In a nutshell, it said: let’s deal with the world as it is and let’s deal with social problems as they are—and let’s not force liberal economic dogma on them when it doesn’t work. This is a good example, incidentally, of the principle of active subsidiarity gaining a tenuous economic foothold: “[The directive concerning public service contracts] requires contracting authorities [usually local government] to establish technical specifications for contract documents [...] Certain Member States and service providers have pointed out the difficulty of establishing in advance a precise

description of the specifications for social services, which must be adaptable to the individual circumstances of persons in need. To overcome this difficulty, technical specifications may be established on the basis of performances and functional requirements. This means that the contracting or awarding authorities may decide to define just the aims to be achieved by the service provider.” In other words, the imperative that social services be adapted to a wide variety of situations necessitates results-based rather than means-based governance.

The application of the principle of active subsidiarity to production and trade is essential to the economy. It is one of this book’s recurring themes. For now, I will just mention two relevant points. The first concerns the right of local communities to draw on untapped human energies to meet unsatisfied needs. If this right is rejected in the name of free trade, then free trade will lose its legitimacy. It may be justified in theory, but it will be rejected by common sense. The second point concerns the diversity of goods placed on the market. Too often, the “container” is more diverse than the “content”: the shape of the bottle is what allures consumers and clinches their loyalty. But a wide variety of bottle shapes also prevents them from being immediately recycled. Yet it would be entirely possible to normalize bottle shapes, making them immediately recycling possible, and to focus on the diversity of content instead.

### ***Managing Relationships***

The more a society is complex and interdependent, the more it depends on the management of relationships. No problem can be dealt with at a single level of governance. Most problems, moreover, can only be dealt with through different kinds of actions. Ending social exclusion depends, for instance, on education, health, housing, the labor market, entrepreneurship, and so on. Health issues depend on education, housing, continuing education,

the environment, as well as the development of a sophisticated medical infrastructure, despite the fact that it already consumes the vast majority of public and private expenses. Recent studies suggest that medical infrastructure accounts for only 11% of a population's health. Other factors relate to lifestyle and genetics.<sup>109</sup>

Industrial ecology (discussed in part one) provides a good example of what relationship management means for oeconomy. An “immature” ecological system is characterized by extensive exchanges with the outside and weak exchanges on the inside, while a “mature” ecological system is more sophisticated in that it seeks to bring internal cycles to completion. In other words, a “mature” system “thickens” relationships, allowing it develop with minimal recourse to external energy, raw materials, and waste disposal options.

Traditional governance consisted of divisions. It was always building fences: between different governance levels, between public and private actors, between bureaucracies, between political power and bureaucratic power, between the formulation of public policy and its oversight, between the providers and the users of public services, and between the experts and the ordinary people. Governance replaces each these fences with a bridge.

The same revolution that has taken place in governance must also occur in oeconomy. Our existing economy is very good at amputations—beginning with the very idea of human being itself. Economic theory takes the complexity that is a human being—with its many and contradictory aspirations, its needs for both material satisfaction and a meaningful life, its yearning for recognition, and a desire for cooperation as well as competition—and extracts from it an uncomplicated and purely rational *homo economicus*, motivated only by the pursuit of material interest and (as *homo laborans*) selling his abilities to the highest bidder.

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<sup>109</sup> Personal exchange with French health minister Xavier Bertrand, 2006.

Another idea amputated by contemporary thinking is that of economic actors. We are constantly lectured that companies are only socially useful by when they make maximizing their own profit their highest priority. Oeconomy's gambit is, however, precisely the opposite: to imagine institutional arrangements that combine different types of capital and goods and different goals. Solidarity economics tries to do this. As its defenders rightly point out, solidarity economics endeavors to ensure social cohesion while at the same time producing a range of goods and services. It also seeks to achieve well-being, social justice, and solidarity simultaneously. Corporate social and environmental responsibility (CSR) also implies the recognition that different goals can be pursued simultaneously. We are beginning to run up against classical economics' fundamental contradiction. Who can really say with straight face that they are concerned with the "triple bottom line" (the three "Ps": people, planet and profit) while insisting at the same time that their main concern is to keep their shareholders happy? We alternate between schizophrenia (i.e., the left hand does not know what the right hand is doing) and hypocrisy ("what I do is not what I say"). In governance as with oeconomy, imagining institutional arrangements that simultaneously pursue multiple objectives is, we can all agree, an essential priority.

Finally, our current economy amputates relations between actors. Classical economic theory puts forward the following postulates:

- Public and private actors operate in completely different worlds;
- Relations between companies consist of several basic forms: control (as with branches); purely commercial relations (as with clients, suppliers, or sub-contractors); and competition.

Fortunately, these postulates are false. In all domains of economic life, more or less stable configurations of relationships are established. To draw a comparison with natural sciences, one



could say that we live not in a universe of perfect gasses but in a beaker full of living beings existing in colloidal states that consist of connections and relationships of varying degrees of intensity. Competitiveness between nations and territories depends to a considerable extent on the ways relationships and cooperation between private and public actors is structured. At the national level, the United States, though it presents itself as champion of economic liberalism, has no qualms about pursuing an active industrial policy. By analyzing China's development, I have shown that the compactness of its governing class, which frequently leads to collusion between local public authorities and economic interests, makes it both a model of bad governance *according to the World Bank's criteria* and a case of economic efficiency.<sup>110</sup>

Companies belonging to production and distribution chains do not waste their time reshuffling their cards—i.e., changing their suppliers and clients. This would increase their transaction costs, deprive them of critical learning processes, and, in the end, fly in the face of the truth that relationships based on trust are as essential to economic life as to social existence. These chains can be thought of as long organic molecules, with chains that may be more or less strong but which are each nonetheless essential.

The same kind of interaction exists between buyers and sellers. Ikea was ingenious to have invented the slogan: “We’re going to put you to work!” In this outlook, the buyer becomes the builder’s partner. Similarly, the “fair trade” movement is an effort on the part of the buyer to control production conditions. Consumers thus become “consum-actors”! Where could they find such opportunities when they were simply a *Homo economicus*?

Finally, to reduce the relationship between companies producing the same goods and services simply to one of competition is sheer fantasy. In any living system or society, complex relationships based on cooperation, competition, imitation, selfishness and solidarity are forged.

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<sup>110</sup> Pierre Calame, “Le contre exemple asiatique,” *op. cit.*

These examples suggest that in governance as in oeconomy, much is to be gained by emphasizing relationships instead of divisions.

Consider, finally, the creditor-debtor relationship. According Michel Albert, two capitalist traditions coexist, often blending together in specific countries: in the Germanic model, companies use bank loans to satisfy their long-term financial needs, while in the Anglo-Saxon model, companies raise capital by turning to financial markets to raise stock value, increase capital, or to reorganize family-held companies into publicly-traded corporations.<sup>111</sup> At first glance, both alternatives would appear, from the standpoint of relationships, equivalent. Recourse to financial markets might even seem preferable, as doing so unites a company's shareholders (i.e., its co-proprietors) in a joint venture; on the other hand, a relationship with a banker, whose role is simply to determine creditworthiness, is not really a bond per se. But this conclusion overlooks that financial and liquidity markets are premised on the ability to buy and sell shares on a market that may be located half way around the world. Such companies really become, in every sense of the word, "anonymous" ("anonymous company" being the term used in several European languages for "corporation"). The new "co-proprietors" know nothing about the company, its leadership, or its employees. Buying and selling is driven solely by profit and by the need for returns on investments. In Paul Dembinski's words, relationships become transactions.<sup>112</sup> Unlike relationships, which are lasting and personal, transactions are immediate, anonymous, and abstract. The process of the "financialization" of the world has reinforced this shift to transactions and completely abstract forms of interaction. Banks and wealth managers sell their clients investment products that bundle together shares from a vast array of corporations. Clients buy slices of these investment products, rather than shares of particular

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<sup>111</sup> Michel Albert, *Capitalisme contre capitalisme*, Seuil, 1991.

<sup>112</sup> 28. Paul Dembinski, *Finance servante ou finance trompeuse*, Parole et Silence, 2008.

companies. Financial managers, in turn, are evaluated on the short-term profits they generate. The old relationship (a traditional feature of provincial life) between a rich old lady and her banker—who was at once her agent, accomplice, and confessor—becomes nothing more than transactions between asset managers. The shift to a transaction-based economy is completed by the emergence of numerous derivatives: one no longer buys a share, which is actually “part” of a company’s wealth, but an “option” to buy one at a certain date—which can, in turn, be sold.

Anglo-Saxon capitalism would appear to have prevailed. Transaction reigns triumphant. Relationships seem quaint and old-dated. Yet it is not entirely clear that this paradigm is on its way out. I will return to this point when I discuss the Sarbanes-Oxley Act adopted by the US Congress in the wake of the Enron scandal. This law is intended to punish executives who do not know what their companies are doing and bankers who do not know to which companies they are loaning money. The US subprime scandal revealed an even deeper problem: with the securitization of loans, which themselves are wrapped into incredibly complex bundles, banks offered their customers financial products they didn’t understand themselves, making it practically impossible for their clients to determine their risk exposure. This is what businessmen call “buying a pig in a poke.” Numerous efforts have been launched to control these practices. Though they have different origins, these endeavors could well converge.

The first origin is legislative and regulatory. Along the lines of the Sarbanes-Oxley Act, it requires bankers and asset managers to have basic knowledge of their companies’ investments and risk exposure. In the subprime crisis, the principle that major financial institutions should regulate themselves, as provided for in the Basle II accord, clearly failed.<sup>113</sup> An at least partial return to public regulation is thus inevitable. It will re-inject a dose of personal awareness of risk,

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<sup>113</sup> See, for instance, the contributions to the seminar on “The International Financial System and Peace,” organized by Economists for Peace and Security (EPS) and the Initiative pour repenser l’économie (IRE) in June 2008, [www.i-r-e.org](http://www.i-r-e.org).

and thus a measure of the relationship principle, into financial management. By the same token, sovereign funds, which in 2007 already managed \$2,500 billion according to Morgan Stanley,<sup>114</sup> became key partners, in the spirit of Norway's Government Pension Fund-Global, which have now become strategic investors. Most of these funds come from oil profits. To appreciate how much they have grown, one must remember that the market for Euro-dollars, one of the essential elements in the shift to "financialization" in the 1970s and 1980s, was the result of a sharp rise in oil prices. A similarly brutal increase in 2007-2008 seems, however, to have entailed more sustainable economic positions. The revenge of old-fashioned capitalism was emphasized by an article in *Le Monde* from July 6, 2008, entitled: "Grandpas Overshadow Young Hotshots." Great traditional investors like Warren Buffet in the United States and Albert Frère in Europe have begun to eclipse young traders and others adventurers of the era of transactions.<sup>115</sup>

On the other end of the spectrum is Muhammad Yunus, the founder of Grameen Bank, whose international reputation was established when he received the Noble Prize in 2007. Microcredit's principles are founded on relationships of trust, in that loan are guaranteed on a collective basis. This is the classic framework used by mutual aid society or by loans within immigrant communities (particularly the Chinese). The group's own enduring relationships are what ultimately guarantee this kind of credit. Oeconomy must thus be founded on the management of relationships.

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<sup>114</sup> See the Wikipedia article on "Sovereign Funds."

<sup>115</sup> Note from December 2008: The financial and economic crisis of the second half of 2008 has confirmed this analysis. The "transaction" landscape is in disarray. The mutation of a financial crisis into a serious economic crisis is a consequence of a general collapse in trust between actors. Trust, however, is the very basis of relationships.

### *Designing processes*

To characterize modern governance, I spoke in my previous book of a “new tripod” (just as one might speak of a “new footing”).<sup>116</sup> Governance’s traditional tripod consists of institutions, competencies, and rules. Institutions are social organizations with distinct boundaries. They have an inside and an outside. Consequently, they lead one to focus on each actor in isolation, rather than on institutional arrangements, which emphasize relationships between actors. Each actor is endowed with its own competencies; each institution pursues a single goal. Finally, individual behavior and relations between institutions is governed by rules. This type of governance is suitable for a world that is stable, and whose regularity makes it possible for all conduct to be codified. It is space of separate, delimited entities. But this foundational tripod is poorly suited for a complex world, where everything is always on the move, and where one’s goals must constantly be reevaluated to assess their suitability to prevailing institutional arrangements. For this reason, a new governance tripod is needed, based on goals, ethics, and work methods.

“Goals” refer to the fact that a society must constantly reconsider its very reason for being, its *raison d’être*. In the case of oeconomy, goals could include the pursuit for well-being (rather than material accumulation), the preservation and enrichment of the biosphere, and the preservation of the interests, rights, and abilities of future generations. These are the touchstones on which institutional arrangements and work methods can be assessed.

“Ethics” means the values that underpin a society’s interactions. They are the stable guidelines that make relationships and mutual trust possible.

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<sup>116</sup> Pierre Calame, *La démocratie en miettes* (the chapter on governance’s constitutional foundations, p. 140 ff).

Finally, “work methods” are about “how you get something done.” They include institutional arrangements, but also mutually agreed upon practices to make them operational, often through training and cooperation.

It is worth noting that these ideas are not at all alien to the business world. Over the last thirty years, businesses have found themselves confronted with a world that is far more uncertain and fluctuating than the old world of national economies. Consequently, they have had to think increasingly in terms of strategy rather than planning. Planning was typical of the old tripod: one knows who makes decisions, how the plan is approved, and who, thanks to the plan, is responsible for how the system operates. Strategy involves a more projective approach: confronted with uncertainty, one must never lose sight of one’s primary goals. And collective work means that one must know what one expects of others. Roles are not determined in advance. They are reinvented on the basis of current needs, and depend on a shared ethos and shared experiences. A common vision brings a group together. In short, companies must conceive of processes that allow them to define a strategy on which everyone agrees.

Classical economic theory, by defining the rules of competition that lead to the optimal collective good, is fighting the last war. It now consists of many agreements that actors have made to produce satisfying solutions.

To make an analogy with mathematics: classical economics is based on a system of equations, the resolution of which makes it possible to reach an absolute or relative optimum. Oeconomy, however, is based on algorithms, which make it possible to reach satisfying solutions.

### ***Multi-level Governance and Oeconomy***

The art of governance can in no way be reduced to laws, taxes, norms, constraints, and prohibitions. A system of governance is above all an ideology, in the noble sense that Paul Ricoeur gives the term: that which holds men and society together. Straightforward control is not governance, at least not in the long run. You can't put a guard, an informer, or a police officer behind every individual. Even a totalitarian regime must convince its opponents that they did something wrong, and at least part of the population must embrace the reigning ideology. A regime cannot last without some legitimacy in the eyes of the population. Excessively centralized regulations stifle themselves. The best regulations are "organic" in nature, in that they are woven into the very fabric of the system. I referred previously to Jacques Sapir, who prefers to speak of a "decentralized" rather than a "market" economy. He makes an important point: regulatory decentralization, which devolves rule-making to each producer and each consumer, is so much a part of our daily lives that we barely notice it. Yet it is what makes a liberal economy so efficient. I have long been impressed by the theories of the Russian physicist Victor G. Gorshkov, particularly by his ideas about the role played by huge natural ecosystems or "biotas" in the environment's spontaneous ability to stabilize itself (one of these biotas is the Siberian steppe). Why is it, he asks, that ecosystems, and particularly our planet itself, preserve their basic forms over time—a fact that is all the more surprising when one considers that an ecosystem's stability depends on a very large number of variables (most importantly temperature) fluctuating within a very narrow bracket, despite the many pressures that, without a self-stabilizing mechanism, would push them outside of it?<sup>117</sup> In a sense, this is a generalization of the classic problem of how to maintain human body temperatures between 36° and 40°, when outside

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<sup>117</sup> Victor G. Gorshkov, *Biotic Regulation of the Environnement: Key Issue of Global Change*, Springer, London, 2000; see, too, the Biotic Regulation Website : [www.bioticregulation.ru](http://www.bioticregulation.ru).

temperatures are capable of varying between  $-40^{\circ}$  and  $+40^{\circ}$ . In the case of the environment, Gorshkov, through his analysis of “biotas,” shows that equilibrium is the result of a long-term selection process, which he calls “natural stability selection,” through which different species cooperate to preserve their external environment in an optimal state. A process of natural selection based on competition would, on the other hand, result in environmental destruction as well as a single conquering species. In analyzing the stabilizing mechanisms, Gorshkov emphasizes that every cell of every creature belonging to the ecosystem participates in the process. This implies, according to his calculations, an overall information computing capacity that is ten-to-the-power-of-twenty times greater than our own.

I am aware that drawing parallels between the ways in which society and ecosystems operate might seem reckless. But it would be wrong to ignore the algorithms that make it possible for the components of a complex system to converge or not converge (or even to self-destruct). In his provocative book (discussed above), *The Origins of Wealth*, Eric D. Beinhocker of the MacKinsey Global Institute considers, in a similar spirit, the ways in which computer simulations can explain real economic dynamics while completely dispensing with the hypotheses about equilibrium which, since Walras, have founded classical economic theory.<sup>118</sup> How does this relation to Gorshkov’s “biotas”? Both are efforts to account for the ways in which billions of interactions between agents are—or are not, as the case may be—creating a regulation at a macro level.

This is why oeconomy depends on a multiplicity of regulatory levels and forms, why it must consider the internal logic and organic character of each actor and each institutional arrangement, and why it must take into account personal motives and their evolution over time. In the future, computer-simulation will make it possible to illustrate for all actors the possible

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<sup>118</sup> Eric D. Beinhocker, *The Origin of Wealth*, Harvard Business Press, 2007.



consequences of their interactions. These results are indeed often counter-intuitive, at odds with one's expectations.

George Soros published a book on this subject in 1998 entitled *The Crisis of Global Capitalism*, in which he calls attention to finance's essentially "reflexive" character.<sup>119</sup> Every actor acts on the basis of what he or she considers to be the reactions of everyone else. This creates built-in instability. Process approaches, decentralized regulation, and computer simulations of the emergent properties resulting from a system's countless interactions thus create fascinating possibilities of economic modeling.

## **5. Relationships between Human Beings and Nature: A Challenge for Governance and Economy**

In part one, I referred to the threefold crisis of the contemporary experience of relationships: between human beings, between societies, and between humanity and nature. I also pointed out, earlier in this chapter, that the "art of managing relationships" is one of governance's four dimensions, and that our current economy, by reducing relationships into transactions and by making a dogma out of separation, has alienated us from the art of governance.

I would now like to reconsider relationships from a broader perspective.

Governance's primary goal is to "make society": in other words, to transform an aggregate of potentially antagonistic individuals into an organized society in which people cooperate peacefully. From Aristotle, for whom man is essentially a *zoon politikon* (a "political animal") who could not exist outside the *polis* (society), to Hobbes, for whom the political order is a social pact into which men terrified by the prospect of anarchy enter on the basis of rational

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<sup>119</sup> George Soros, *The Crisis of global capitalism*, Publics Affairs. 1998.

calculations, political philosophers have argued that governance's primary task is to construct a social order. This is a task that oeconomy, as a branch of governance, cannot avoid. Production and trade help create social bonds. Trade is more than trade: it is constitutive of the social order as such. Trade, as those who link it to peace understand, is one of the major bonds formed between human beings. For oeconomy, war and peace, competition for rare resources, and mutually beneficial cooperation are thus intimately connected.

Economic progress is often described as the gradual shift from producing and consuming for oneself to the development of mutually advantageous trade, in which everyone produces that which they produce best. Herders in the mountains trade with farmers on the plain; towns trade with the countryside. Trade is based on competitive advantage, which at times consists in nothing more than climactic properties. Ricardo made this point in his analysis of why the English make cloth and the French produce wine. But mutually beneficial trade is also the result of cooperation: people produce better together than on their own. The division of labor does not simply depend on the mobilization of each individual's personal abilities. It also relies on group organization. Comparative advantage and cooperation are both constitutive of social existence.<sup>120</sup>

Oeconomy must constantly be evaluated from the standpoint of two criteria. One is technical, the other social. The technical criterion measures the extent to which trade and collective production are a positive sum game, in which everyone gains more than they would have if no exchange took place. The social criterion describes the bonds that exchange creates and preserves. Such bonds are the basis of communal life. But for bonds to play this role, they can't be anonymous. Bonds connect people. They have names. As soon as trade is a bond, the very idea of anonymous merchandise becomes as absurd and degrading as the idea of being

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<sup>120</sup> See, for example, the parallels that Eric D. Beinhocker draws between "physical technology" and "social technology" in *The Origins of Wealth, op. cit.*

cared for by a robot or getting one's hair cut by an automat. But machines create protective screens. It is easier to turn off a TV than to conclude a conversation. Unfortunately, it is not through the mediation of machines or merchandise that one creates a viable society. Hence the importance of traceability. What human labor—I was tempted to say human faces—lies behind the fact that I can eat, keep warm, and take advantage of progress's advantages? The idea that goods and services could be fully traceable once seemed unrealistic. Today, computers make traceability perfectly possible—as long as we want it.

The fair and equitable trade movement is a consequence of these ideas. It sees each act of consumption as the materialization of a bond. It wants to be informed (and this is the very definition of responsibility) about this bond's direct or indirect impact, the living and labor conditions in which the good was produced, and the effects that this product (which exists only because we consume it) has on these conditions. Traceability inserts each of us in a vast network of interdependence, extending from our neighbors to the planet as a whole. People who want to know who produced (and under what circumstances) the bananas they buy at the store are expressing this demand. They reject the schizophrenic attitude that pays lip service to solidarity while consuming irresponsibly. Consumption—i.e., the recognition of other people's usefulness—is one side of the bond, while production is the other.

In the West, we have inherited a contradictory attitude towards work. On the hand, it is viewed as a curse. Expelling him from the Garden of Eden, god says to Adam: “By the sweat of your brow will you have food to eat until you return to the ground.” This curse underpinned the tripartite organization of Indo-European society: there are those who pray, those who fight, and those who work. The order is significant: laborers are placed at the bottom. This kind of relationship between those who do not work and those who do continued until the French

Revolution. For a noble, labor was derogation—i.e., loss of one's superior social status. Cross- and sword-bearers dared not breed with hoe-bearers. For Adam Smith, the capitalist's task was to make capital fruitful (notice, by the way, the nature metaphor), rather than to put it to work through productive labor. The first industrial revolution dug a ditch between bourgeois entrepreneurs and the workers—a ditch, incidentally, that is not nearly as deep as the one between contemporary corporate managers and their subcontractors half-way around the world. This ditch is the modern form of the old labor curse: the capitalist profits from the sweat of the worker, who is forced by necessity and poverty to sell his labor to the highest bidder. But is work really a curse? Of course not! For most of us, work is the main conduit by which we are integrated into society. Through work, we not only acquire financial independence, but also status and social connections. How difficult it would be to invent anew each day our reasons for living! We can see negative proof for this in new forms of social exclusion: new technology creates, perhaps, a society in which the rich no longer need the poor. Exploitation of man by man was still a kind of relationship. But if one man becomes useless to another, the bond is broken. The major problem with long-term unemployment (at least when it is not voluntary unemployment leading to activity of a new kind) is its disaffiliating effect.

Production and consumption must thus be placed on the same level: rather than opposites, they must be seen as different perspectives on the same bond. The model of integration based on consumption has become depleted. Our place in the world depends on a balance between what we give and take—not simply on what we take.

It is not enough for trade to be mutually beneficial. It must also be fair. In some games, the fair distribution of prize money is more important than the total value of the winnings themselves. This is what the tenants of neoclassical economics have difficulty understanding.

They see the Pareto optimal (i.e., the impossibility of increasing one person's satisfaction without decreasing another's) as absolute. They believe satisfaction can be measured in absolute terms—as if everyone could keep their eyes focused on their own plate, without peaking at their neighbors'. But we are social beings. Comparing ourselves to others is central to our identity and self-worth. Moreover, it is because we are social beings that there is no longer any relationship between gross national product and well-being. It is said, for instance, that economic globalization has lessened poverty. This is objectively true. But the fact that frustrations with the unequal distribution of the fruits of growth are increasing and that modern information systems make them increasingly visible is also objectively true.

Recognizing that production and trade are also bonds allows us to transform a more or less anonymous act—the exchange of money against goods available on markets—into a relation based on agreement or even on a social contract. This is what distributors or the owners of brand-names mean when, referring to their clients, they speak of a “contract of trust.” ISO norms and labels are a form of contractual guarantee. Exchange always more or less implicitly depends on a contract. One way to expand the economy's range is to imagine new kinds of agreements that could articulate explicitly these implicit contractual bonds.

The bonds upon which exchange is based also shape the relationship between human beings and nature. The three crises in relationships—between humans, between societies, and between human and the biosphere—are all related. Science's unremitting instrumentalization of nature, in the name of “laying bare its most intimate secrets,” results sooner or later in the instrumentalization of human beings. Guaranteeing the traceability of food products and giving priority to local producers over products from half-way around the world express a deep consciousness of our relationship with the biosphere as a whole. I belong to a generation for

which bread is symbolic for two reasons: it belongs to the Christian communion, but it also represents the unity of man and nature.

From the perspective of the bonds that societies create between their members and with nature, the consumption of human labor and the consumption of natural resources are thus very analogous. Still, they differ in a fundamental way. Human labor, into which a significant amount of intangible capital is incorporated, is in many ways unlimited: it is calculated not through labor hours but through productivity, which can grow almost ad infinitum. Our relationship with nature is entirely different. The biosphere's resources are finite. Where human labor always reveals the usefulness of our fellow human beings, the use of natural resources can be to their detriment (as when we collectively consume resources beyond their natural ability to regenerate). It is for this reason that our existing conception of currency is hopelessly out of date: it makes no difference and measures in the same way two components of goods and services—human labor and natural resources—that are literally incommensurable. A frugal lifestyle means something very different when one eliminates one's dependence on other people (which amounts to denying their usefulness) than when one limits what one "takes" from the biosphere. Frugality in relation to others tears apart the social bond—a little like Onan from the Book of Genesis, who refused to share his offspring with his brother in order to keep the whole inheritance for himself. Frugality in relation to nature, however, is a perfect expression of the duty of sharing nature's riches with others.

## **6. Oeconomy Combines Several Types of Capital**

To function, society needs both capital, which has often been accumulated over centuries or even millennia, and resources that are consumed in the production process. The latter include natural resources as well as human activity.

One learns this distinction in introductory economics classes, in which economic development is presented as a process whereby labor is gradually replaced by capital, which makes productivity gains permanent. But exactly what kind of capital are we speaking about? We have just seen that the two components of the production process, human labor and natural resources, are incommensurable. What are the implications for capital?

Here, too, the kneejerk recourse to monetary values is misleading. Consider a company's balance sheet. Assets consist of buildings, machines, stocks, patents, and (more recently) software. Liabilities indicate who the owners and creditors of these assets are.

But does an accountant's perspective really explain what labor productivity depends on? Does seeking a single monetary equivalent for one's assets or the specific owners of liabilities reflect reality or hide it? This is what I would now like to clarify.

Economic theorists, whether classical or Marxist, described the first industrial revolution primarily in terms of a substitution of labor for capital. "Production functions" generally refer to the possible ways in which these factors could be combined. It is further presumed that these factors can be reduced to capital measured in terms of the amount of money invested and labor described in terms of number of hours worked and aggregate salaries. But this account of the substitution of labor for capital is unequal to the task of explaining a modern economy or understanding the history of economic development. Rather, this history consists of a series of substitutions of one production factor by another.

The first major substitutions involved energy. Human effort was first replaced by animal and then by hydraulic power. It might be said that money is needed to buy a horse or an ox or to build a mill, and that this is a form of capital. I disagree. For the next stage was the substitution of local energy—whether human, animal, or hydraulic—by energy brought in from increasingly far away (particularly fossil energy). But the latter is not intellectual or tangible capital: it is extracted from nature. Natural capital can be enriched or be depleted and these trends, like the improvement or degradation of the soil's fertility, determine the possibilities for future production. Natural capital and human capital are thus also incommensurable.

More detail is required. We must conceive of the production process as a combination of seven factors. There are four kinds of capital: tangible, human, intangible, and natural. Then there are three kinds of resources: human labor, raw materials, and information.

For now, I'll consider the four kinds of capital and their different permutations.

The first, tangible capital, consists of both public goods (infrastructures, schools, hospitals) and private goods (buildings and machines).

The second, intangible capital, consists of a reservoir of knowledge and know-how which has been gradually accumulated and may be put to use at any moment. Intangible capital is also composed of both public and private capital. Patents and licenses are examples of private intangible capital, and of what we call intellectual property. The recognition by the American judicial system of intangible assets in corporate balance sheets led (as we have seen) in the seventies to a radical shift in the access of companies owning intellectual property to financial markets. By the mid-eighties, corporate investments in intangible capital were on par with tangible investments.<sup>121</sup> The significance of this change, which entailed an historic break in the history of production processes, is often underappreciated. But most of intellectual property does

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<sup>121</sup> Loïc Bouvard, Pierre Calame, *Le dialogue des entreprises et du territoire*, Éd. Charles Léopold Mayer, 1988.



not consist of patents. Rather, it consists of information networks and corporate organization models that are not listed in balance sheets, yet which nonetheless have a decisive impact on corporate efficiency.

The conflation of tangible and intangible capital rests on a semantic error. It is based on the premise that both involve investments, i.e., renouncing immediate gratification in the hope of future gratification. However, the ways in which they are duplicated, reproduced, and maintained are extremely different.

One of the most striking examples of one production factor replacing another was substitution, in the final decades of the twentieth century, of tangible capital by intangible capital. Public intangible capital includes governance, the modalities of cooperation between actors, the normative system, and the very principles of social organization itself, all of which are irreducible to the knowledge and know-how of individuals or isolated organizations.

The third kind is human capital. I distinguish it from intangible capital because it obeys a different rationality. Human capital is the sum of knowledge and know-how possessed by the members of a society. These days no company, however great its size, can assume responsibility for all the investments in time and money needed to create the human capital that it needs. The qualifications companies need are no longer “tricks of the trade,” which cannot be transposed onto other professions. Rather, today’s companies draw from a pool of general skills, upon which most economic activities also draw: management, financial services, human resource services, logistics, marketing, project management, information technology, regulatory systems, quality control, and many others. The human capital required to run a company belongs to the employees, particularly skilled employees, rather than to the company itself. In such circumstances, massive investment in mobile human capital is, for any given company, an

enormous risk, unless it occupies a dominant position on the labor market. Furthermore, human capital is built over time: needless to say, companies cannot start training children in nursery school in order to acquire, twenty years down the road, skills that by then will have long since become outdated. It follows that human capital is primarily produced in socialized circumstances. Moreover, while many people move from one company to another, far fewer move from one region or one country to another, unless necessity forces them to. This is why human capital, even if it only manifests itself in the form of individual skills, remains rooted (in terms of its production as well as of its usage) in territories or nations. Recall Martin Wolf's observation about the non-incompatibility between economic globalization and higher taxes in north Europe: it is not so much payroll taxes that are competing with one another as different degrees and different means for mobilizing and reproducing human capital.

Half-way between intangible capital and human capital I place those two peculiar resources that are the ability to cooperate and normalization. Intangible capital and human capital are not confined within companies' boundaries. They are equally decisive in organization relations between actors and what I have called institutional arrangements. At the risk of getting ahead of myself, let us consider two examples discussed by Suren Erkman: industrial symbiosis and "functional economy." Industrial symbiosis consists in the art of finding ways in which different companies physically overlap. Functional economies are able to scale back maintenance services and the renewal of existing plant through the art of creating interchangeable norms between the components of their products and plant. The habit of cooperating on a territorial scale is another form of intangible capital.

The fourth kind is natural capital. It consists in the capacity of ecosystems to adapt and regenerate. There are two dimensions to the relationship between humanity and the biosphere:

the quality of the ecosystem and the flow of “withdrawals” made from the biosphere’s resources. Natural capital includes the following elements: soil fertility, the quality and abundance of underground water, oceanic conditions, climate stability, rainfall rates, and the preservation of “biotas” (i.e., extensive green space, which is essential to the biosphere’s stability<sup>122</sup>). Once again, this capital’s preservation depends on a combination of public and privation initiatives.

Consideration of the four categories of capital that are necessary for production proves that we have entered a new historical era, in which intangible, human, and natural capital is as important as tangible capital. It shows, too, how these four categories always intertwine, albeit in different proportions, public and private investments: oeconomy is mixed, not by choice, but by nature.

Oeconomy relies on a formidable deployment of natural, intangible, human, and tangible capital. Actors, institutional arrangements, processes, rules, and everything we have been calling “governance” are integral to this capital. This profound truth is confirmed by the fact that after a war that completely devastated industrial plant and public infrastructures—namely, defeated Germany’s tangible capital—productive capacity was rebuilt with astonishing speed. This reconstruction was dubbed the “German miracle.” But, as is always the case in the matters, there was no miracle at all. It was called a miracle because the deeper mechanisms of development were poorly understood. Attention was focused on tangible capital, whereas capital’s most essential components are intangible. This tendency to underestimate intangible, human, and natural capital also prevents us from measuring our planet’s real condition. We have systems of national accounting, but they are designed primarily to measure material flows, without taking into consideration the degradation of natural capital. In the case of agriculture, for instance, we are able to count quintals of wheat and tons of sugar beets, but not the depletion of soils through

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<sup>122</sup> On this subject, see the work by Gorshkov mentioned above.

loss of organic matter or over-compacting. Even less are we able to measure the loss of biodiversity.

As for intangible capital, we have an intuitive sense of its importance yet we have never devised the means to measure it. Take a simple example: the value of diasporas. One of the major forces driving China and India today is the extent of their diasporas. Because of their members' faithfulness to the homeland, a diaspora community is a formidable system for sorting, filtering, and disseminating information that allows it, like a plant's nourishing roots, to draw from the entire world everything that it needs to develop.

The human development indicators devised by the United National Development Program (UNDP) are a first step towards a system for assessing human capital. The concept of an "ecological debt" is also an attempt to assess threats to natural capital. The fact that, for over a century and a half, rich countries have employed the world's natural and fossil energy resources to their advantage must be factored into the planet's accounts to the same degree as the financial debt of poor countries. The creation of consolidated accounts, first in each major region, and then between major regions, will help put the world right side up.

## **Chapter 2: The Different Categories of Goods and Services and their Systems of Governance**

### **The Different Ways of Classifying Goods and Services and the “Share-and-Divide Test”**

While reflecting on oeconomy’s specifications, we have just reached two essential conclusions. The first was that exchange born from the production and use of goods and services does more than satisfy individual needs. It also creates bonds that contribute to building society, in addition to fostering relations between individuals, between societies, and with the biosphere. The second conclusion was that the production of goods and services incorporates different types of capital, in which there is always a public component, whether because this capital is the fruit of collective efforts, or because its use cannot be restricted to a single actor. We must now ask ourselves what goods and services we are talking about. To this end, let us return to oeconomy’s definition. “Its purpose is to organize the production, the distribution, and the use of goods and services [...]”; “it must make the best use of technical capacities and human creativity”; “it must preserve and enrich the biosphere”; “it must preserve the interests, the rights, and the capacity to act of future generations”; “it must act within conditions of responsibility and equity to which all can adhere.” For this reason, “the purpose of oeconomy is to create actors, institutional arrangements, processes, and rules.”

But are these actors, institutional arrangements, processes and rules the same for all goods and services, or do they vary according to their nature? In other words, does oeconomy encompass several systems of governance, each one specific to a particular category of goods and services? Are these goods and services equivalent from the standpoint of the collectivity, and

should decisions about their use depend solely on individual preferences? Are they equivalent from the standpoint of the preservation and the enrichment of the biosphere? If one seeks to make the best use of technical capacities and of human creativity, are these freely accessible or limited to private ownership or use? Are goods and services equivalent from the standpoint of personal and social responsibility, as well as from the standpoint of equity?

To ask these questions is to have already answered them: no, goods and services differ from one another according to each of these criteria.

Consequently, oeconomy must be able to describe and characterize these various goods and services—in other words, to place them into relatively homogenous categories and to define the actors, institutional arrangements, processes, and rules—in a word, the systems of governance—corresponding to each category.

One of the classic questions faced by governance is that of determining what should belong to the market (which requires public authority only to define the rules and create the conditions in which it can operate) and what should belong to the public sector (on the basis of which taxation, redistribution, or direct public action in the form of public services are justified).

These questions are the subject of a lively debate. Like comparable debates, this one has more often been obscured than clarified by political and ideological positions inherited from history. Partisans of public service have opposed those of the market for so long that many distinctions and nuances have become blurred, rendering many general terms increasingly meaningless. Under the rubric of “public service,” goods and services provided by local authorities because they are essential to human dignity (such as health, education, the environment, and water) are mixed in with economic activities that are called “public” because

they face no significant competition; services that depend on public intervention, such as roads and railways; and services that are essential to a nation's future, such as research. This leaves us with quite mishmash. Further confusion ensues when it is inferred that because a good is public, its management must also be public: in this way, the good's nature and purpose are conflated with its management.

This debate leads us to even more appalling muddles, such as the defense of "French-style" public service against the temple merchants of the United States or Great Britain, or the fact that we applaud our state companies (such as EDF, Air France, France Télécom, and others) when they conquer foreign firms, even as we preach economic patriotism and scream bloody murder if it seems that the Americans might take over Danone or the Italians Suez. In the name of sovereignty—which we hastily invoke on such occasions—we grow indignant at the prospect that on our own soil our champion companies might be subject to the very competition that serves them so well when it comes to acquiring little siblings abroad. The time has come, in short, to think a little more coherently.

From this perspective, it is fortunate that France belongs to the European Union. The fact that we must constantly compare how nations with very different traditions go about pursuing the same goals requires us to constantly reconstruct and deconstruct our own habits of thought. This is good for mental hygiene. Pierre Bauby, the former director of EDF's research group on "Electricity and Society" and the chairman of one of the committees of CEEP (European Centre of Employers and Enterprises providing Public services) insists that in the French tradition the term "public service" is confusing because it can refer simultaneously to several different things: a public assignment, a monopoly, a state company, an employee's status, and even the state

itself.<sup>123</sup> In other European countries, public services differ from one another in terms of the categories they use, their doctrines and concepts, their territorial subdivisions, the commercial character (or lack thereof) of their services, as well as the nature of the actors involved (public, mixed, private, or associative). Even so, beneath this diversity lies a profound unity: in all European countries, public authorities have decided that certain activities must not be forced to obey the laws of competition and the market, but instead require their own specific forms of organization and regulation. The following reasons are invoked:

- To guarantee that each inhabitant has the right to essential goods and services;
- To insure economic, social, and territorial cohesion, and to build solidarity;
- And to foster sustainable development at an economic, social, and environmental level.

The principle of “undistorted competition,” on which the European Common Market was built, has seriously shaken the conventional understanding of public services. It requires each state to justify why it thinks it should be exempt from the rules of competition that apply to all. The high point of these challenges to our understanding of public service was reached between 1986, when the Single Act was signed, and 1994, when the single market was fully implemented. But, as Pierre Bauby also notes, the traditional idea of public service was also called into question by several technological and cultural developments: the internationalization of sectors that had previously operated on a national scale, consumer demands that certain services be diversified, and the inefficiency of certain public services that had been protected by their monopoly status. The charge was enthusiastically led by neoliberals and by major firms—some of which had previously enriched themselves on public sector contracts, as was the case with the water industry in France—seeking to profit from the neoliberal wave. What I find particularly

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<sup>123</sup> See Pierre Bauby “The Evolution of Thought Relating to Public Service at a European Scale”, Institute for Research and Debate on Governance, June 2005.



interesting in this debate is that it takes only a few lines for the heterogeneity of goods and services classified as “public” (as well as the heterogeneity of the criteria use to identify them) to appear. At times, we are talking about the way in which some goods and services are produced—one requiring the intervention of public authorities; at others, we are talking about the goods’ recipients, by affirming that everyone should benefit from them; occasionally, their public character is justified on the grounds that they are not the object of genuine competition, and that allowing them to be privately managed would privatize income acquired through a dominant position; at times, we are referring to a form of management; at others still, we mean a long-term and collective interest arising out of a concern for social cohesion and future generations.

Thus depending on which criteria one chooses to emphasize, one is led to different models of production and management.

### ***The Criteria of Destination***

Let us begin by examining in depth the first criteria for classifying goods and services: the criteria of destination. This criterion should allow us to distinguish “public goods” from “private goods,” and to see if it is possible to deduce specific governance systems from them. From the standpoint of their destination, so-called “public” goods and services are associated with the idea of right. Consider the case of health. The French association “Biens publics à l’échelle mondiale” (BPEM, or “Public Goods on a Global Scale”) defines these goods as “things to which individuals and peoples have a right, [and which are] produced and distributed in conditions of equity and freedom that are the very purpose of public services, whatever the status of the companies that happen to assume responsibility for them.” One must also refer<sup>124</sup> to

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<sup>124</sup> François-Xavier Verschave (ed.), *La santé mondiale entre racket et bien public*, Charles Léopold Mayer editions, 2004.

the imposing edifice of universal rights which, since the Universal Declaration of the Rights of Man of 1948, has expanded and been filled out by a large number of conventions and two pacts, one covering political and civil rights and the other economic, social, and cultural rights. The notion of a global public good is thus intimately connected to that of universal economic, social, and cultural rights. “Global” is defined here as “that to which everyone has a right” and not as “that which must be managed on a global scale” or “that which belongs to humanity’s heritage.”<sup>125</sup>

Water, education, health, and an uncontaminated environment are thus—who would deny it?—fundamental conditions of human dignity, as much as freedom of speech and of conscience. An economy that claims to promote humanity’s well-being within conditions of responsibility and equity to which all can adhere must allow each human being to enjoy these elementary rights. The question then becomes: how does one get beyond simply declaiming this principle? How can each human being enjoy these rights in practice?

The International Covenant on Economic, Social and Cultural Rights of 1966 recognizes “the right of everyone to the enjoyment of the highest attainable standard of physical and mental health” and charges the signatory states to take the necessary measures to guarantee that these rights can be fully exercised. But we must note the unintended humor found in subsequent phrases. The Covenant speaks of “the highest attainable standard of physical and mental health”: yet is this capacity relative to one’s genes, to one’s age, to the condition of one’s environment, to the lifestyle that one has chosen or been forced into, or to one’s economic means? And while the signatory states recognize that they have been charged with taking the measures necessary to achieve these goals, what exactly are their practical implications? Where are the courts before

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<sup>125</sup> The definitions of global public goods are as numerous as the authors who grapple with this idea. A useful summary can be found in: Jérôme Ballet, “Propriété, bien public, bien(s) commun(s), in *Développement durable et territoires* 10 (March 2008).

which “everyone” can sue a state denying them the highest attainable standard of health? Does the Covenant require states to devote all of their resources to achieving these goals? What does it say about adjudicating goals that are mutually exclusive? Four observations follow from these questions.

The first is that in oeconomy, some goods are public by virtue of their destination. These goods are defined through a collective adjudication standing over against the atomized expression both of the unrestricted preferences of individuals (i.e., demand) and of the unrestricted choices of producers (i.e., supply). This leads to a major question: how should collective preferences and individual choices be combined, and what kind of regulations of supply and demand are required—the public or private character of the actors charged with the providing these universal services notwithstanding?

The second observation concerns the institutional arrangements to be created. A declaration of rights, even when unaccompanied by positive measures prescribing how all can be made to enjoy them, at least establishes a principle of non-contradiction: any institutional arrangement that makes the enjoyment of these rights impossible becomes *ipso facto* illegitimate. Perhaps the notion of “manifest incapacity,” which brings us back to the nature of the actors and their relations with one another, can provide a roadmap leading to future institutional arrangements.

The third observation concerns the multiplicity and thus the coherence of oeconomy’s goals. Ever since the creation of the United Nations in 1947, the international community takes on every year more and more goals, which it then typically asks the signatory states to implement. However, the institutional arrangements adopted to ensure the implementation of these goals participate in (including at the level of states themselves) an outdated conception of

governance, in which each institution is assigned a single goal. The question of the coherence between goals and means is thus settled simply by juxtaposing institutions, despite the fact that they often have different purposes, without anyone ever bothering to adjudicate between them. Yet the public and private institutional arrangements that must be invented to provide these types of goods and service should, to the contrary, seek to pursue multiple goals simultaneously—something that we have only a very poor idea of how to do.

The fourth observation pertains to responsibility. The International Covenant on Economic, Social, and Cultural Rights of 1966 affirms that “States Parties will take appropriate steps to ensure the realization of this right.” But this does not imply a penal responsibility. Rights cannot be effective unless it is possible to demand that they be enforced in a court of law; consequently, to be made effective, rights presume a division of responsibilities. Yet what all economic and social rights have in common is that while they depend on individual behavior (for instance, with regards to health, alcohol, tobacco, and drugs, or, in the case of housing, noise, respect for the occupied space, and the timely payment of rent and service charges), they are also managed by local and national authorities, as well as by the international community. Responsibility for these rights is thus necessarily shared, making it difficult for one to demand their enforcement by a single institution.

Michel Doucin, France’s former ambassador to the Commission on Human Rights, has analyzed the meaning of economic and social rights in depth, demonstrating that they can only mean that that any given state must be as efficient as possible in fully enforcing these rights given the means at its disposal. This means that the policies and institutional arrangements that each state adopts must be examined by its citizens as well as by the international community, and must benefit from the successes and failures of others and from the best available knowledge.

This is precisely what is meant by the principle of active subsidiarity. The association “Biens publics à l’échelle mondiale” observes: “Universal human and ecological rights are the rule, legitimate international institutions are the guarantor, democracy is the permanent requirement, and social movements are the source.” One should note both the strength and the weakness of this formula from the standpoint of oeconomy: a right is not a rule; international institutions have, regrettably, neither the legitimacy nor the means to guarantee that rules are obeyed; democracy is not one of public service’s strongest suits; and as for “social movements,” whether the social dynamic that historically played such a decisive role in pressuring states to adopt public health policies is adaptable to a global scale is unclear. Thus if the criteria of the destination of goods and services allows us to assert that the collectivity must step in to determine collective preferences, by guaranteeing that there is universal access to these goods, by punishing actions that violate economic and social rights, and by devoting itself to actually providing them, it tells us relatively little about the system of governance that it necessitates.

### ***Modes of Production***

Let us turn to the second possible criteria for classifying goods and services: their mode of production. This is the weakest criteria, for several reasons.

The first is that public goods are only defined, as it were, negatively. For neoclassical theorists, public goods are those that the market cannot produce: goods that are non-exclusive, and thus over which there is no rivalry. Everyone can use them as he or she wants, and doing so deprives no one else of them. However, from the standpoint of oeconomy, this criterion is on its own not particularly relevant. It implies that in situations where the market is capable of producing, it is necessarily more efficient. Public action thus occurs simply by default, as a

second choice, or when market mechanisms are unavailable. A broader examination of which institutional arrangements are best suited for achieving oeconomy's goals are thus required. Market mechanisms naturally have their place; they are, however, only one institutional framework among others, and should not be seen as an end in themselves.

The second reason is that this form of classification encourages us to see each mode of production as endowed with inherent attributes. It is better to judge the various possible institutional arrangements in light of their results, rather than in terms of their self-declared virtues. Public institutions can function purely for their own sake and become completely self-referential, indifferent to society's real expectations; but they can also be models of governance aimed at promoting the public good; private companies may be full of crooks and run by unscrupulous opportunists, but they can just as easily be driven by an ethos of the common good. It is thus more useful to imagine under what conditions the former might truly serve society and the latter serve the common good than to declare *a priori* that one form is superior to the other.

The third reason for the frailty of classification in terms of modes of production is that the kinds of goods that can be produced or reproduced by a market are very dissimilar. A monument or a landmark that has been declared to belong to humanity's heritage is a public good because it is not reproducible. Its value lies in its history; it is deemed a "public good" not by virtue of *how* it was produced, but by virtue of *what* was produced. Being an integral part of the richness of humanity, it should fall under the purview of classical property law, which, as Roman law stipulates, authorizes the "use and abuse" of goods one owns. Private or public proprietors cannot do what they want with it without accountability. The notion of "common good" leads, for individuals as much as for states, to the idea of "functional sovereignty."<sup>126</sup> The right to use a

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<sup>126</sup> I borrow the concept from René-Jean Dupuy, *La clôture du système international: la cité terrestre*, Presses Universitaires de France, 1989.

good or a service is recognized only as long as one preserves resources that are held in common, achieves certain results, does not deprive others of their right to use it, and so on. Functional sovereignty (i.e., the right of usage or of conditional property) thus lies mid-way between several different modes of production.

The final reason for this frailty is that today, modes of production are mixed, as I demonstrated in a previous chapter: in a modern economy, most intangible, human, and natural capital necessary for production—including private production—is collective capital, in the sense that it has been either produced by the collectivity or is the outcome of multiple contributions made by its members.

### ***The Nature of Goods and Services***

Over the years, another criterion for classifying goods and services has struck me even as even more decisive for oeconomy: that of the nature of goods and services.

The need I felt to create a typology of goods and services based on their nature arose from my unease when confronted with classic typologies that confuse, as we have just seen, criteria based on destination with criteria based on mode of production. This ambiguity is most apparent when considering services providing personal care. There is no inherent difference between different professions providing personal care. The services that one requests of a doctor, a nurse, a hairdresser, or a housekeeper are fundamentally similar, as they simultaneously mobilize competencies and time and seek to engender feelings of well-being, the quality of which depends both on technical skill and the personal connection. In this case, even more than in others, economic exchange is a bond. This is so true that in hospitals, the rate at which the sick get well depends as much on how they are received, on the atmosphere, and on the food—in

short, on matters relating to the hotel business—as on medicine as such. Anyone who has visited the elderly knows that a lingering hairdressers’ or housekeepers’ appointment—that is, time that is devoted to them and which proves that they exist and can still participate in society—is worth a great deal more than medical care—though it is medical care that is more commonly considered to be a “public service.” Confronted with ambiguities such as these, it seems to me that the “dividing test” offers the most decisive criteria.

The “share-and-divide test” is what the gardener does when he thrusts his spade into the ground. If he cuts a worm into two, is there no longer a worm, or are there two? Similarly, what happens when one tries to divide up goods and services?

The ambivalence of the French verb “*partager*,” which can mean both “divide” and “share,” leads oeconomy to some interesting insights. In French, one can say: *on partage un gâteau* (“we cut the cake into pieces”), *on partage un repas* (“we share a meal”), *on partage des convictions* (“we share the same convictions”), *on partage une même culture* (“we share the same culture”).

*Partager un gâteau* means “to cut up a cake and to give everyone a piece.” In this sense, *partager* means to divide and then to distribute the results of this division.

*Partager un repas* (“to share a meal”) does not, however, necessarily mean that we divide up the main course. It means, rather, to be seated around a same table and to enjoy the presence of others. But clearly “sharing a meal” does not imply that some will stuff themselves while others eat nothing. We find ourselves here squarely within the realm of oeconomy: “the use of goods and services within conditions of responsibility and equity to which all can adhere.”

*Partager des convictions* (“to share the same convictions”) uses the word in a third sense. Here, it indicates something that is held in common, and which thus implies an exchange and a



bond. It is something which makes being together and acting together possible. We are thus not far from the idea of a “functional economy,” in which the goods that everyone produces can be used by all, thus ensuring that everyone’s contributions are mutually compatible and possibly even interchangeable. For instance, the adoption of a common set of Internet standards can be a necessary foundation for enabling mutually beneficial exchanges. In any exchange, the reduction of transaction costs and related uncertainties implies numerous instances of sharing of this kind. The most evident example is that of a shared currency. It establishes a single standard of value, ensuring that everyone can understand what is being referred to. It does not create uncertainty, as do fluctuating exchange rate when different currencies are in use.

Finally, *partager la même culture* (“to share the same culture”) resembles the preceding example, save for a few subtle nuances. It means having a common basis that makes us what we are and nurtures us. Unlike norms such as the Internet, this culture is produced by history; however, it is not the outcome of explicit agreements, and thus cannot be easily reproduced.

The “separating” and “dividing test” thus leads us to distinguish four major categories of goods and services: those that are destroyed when divided (category 1); those that are divided as they are shared and are finite in number (category 2); those that are divided as they are shared and are indeterminate in number (category 3); and those that multiply as they are shared (category 4).

In the remainder of this chapter, I will try to explain each of these categories, to illustrate them with examples, and to deduce the system of governance that is best suited for each.

## **1. “First Category Goods,” Which Are Destroyed When Divided**

### **Examples and Characteristics of First Category Goods**

First category goods are those that are indivisible, or which, if they were divided, would be destroyed. They consist of two major types: those that are the product of a single action, and those that are the outcome of a myriad of actions and decisions.

One can say, for the sake of simplicity, that the criterion of first category goods is that of Salomon’s judgment: if one cuts an infant in two, and gives half to each mother who claims it as her own, there would no longer be any child at all. In relation to indivisible goods, we must behave like the good mother in the story of Salomon’s judgment: “I would rather that the other mother have the child than that there be no child at all.” It is a frustrating category, as it is both self-evident and difficult to explain. To define its parameters, we will consider a list of possible examples, explain why some seem to belong to this category of indivisible goods, and then try to identify the category’s general properties.

Let us take as our first example a monument or land classified as belonging to “humanity’s heritage.” These are clearly not divisible: if one broke the monument down into its component materials, or divided the land up into strips, one would destroy the very thing that makes them valuable. These are goods whose different parts form a system and whose quality is an emergent property of this system. Furthermore, what makes this heritage valuable is the fact that it is not reproducible, since it is a product of history and history cannot be rewritten. A crazy billionaire could recreate the château of Versailles or the temple of Angkor in America or China; but they would not be considered humanity’s heritage, as they would simply be imitations. It is true however that *any* building or piece of land can meet the twin criteria of indivisibility and

non-reproducibility, without for that reason deserving to be included in humanity's heritage. A third characteristic is thus necessary: an artifact's irreducible value. It is irreducible in the sense that its value has no monetary equivalent. Humanity's heritage cannot be bought. It is a product of civilization that we judge to be important for ourselves and for our children. It thus satisfies one of oeconomy's criterion: "the preservation of the interests, the rights, and the capacities of future generations." We do not have the right to deprive them of the château of Versailles or of the temple of Angkor. To call it humanity's heritage is to say that it is important for the whole world and that the whole world is the guarantor of its integrity.

A second example is to be found in the biodiversity of ecosystems. We find the same criteria that we applied to the château of Versailles and the temple of Angkor. Biodiversity is a property of the ecosystem itself, an emergent property, irreducible to its parts. A second characteristic is that biodiversity is not reproducible, precisely by virtue of the fact that it is the result of an infinite diversity of regulations that we do not know how to reproduce artificially. Thanks to biotechnology, we know how to produce beings that do not exist in nature—they are unfortunately constitutive of the very dreams that these technologies allow us to entertain. However, in the case of biodiversity, we are incapable of doing more than participating in its upkeep. A third characteristic is that the existence of this good or service is essential for us. We know that by undermining biodiversity, we would also be undermining the interests, rights, and capacities of future generations; we would fail to achieve one of oeconomy's major goals, the preservation and enrichment of the biosphere.

We thus have already identified three interesting characteristics of first category goods: their value is an emergent property of the system and thus indivisible; they are non-reproducible; and they have qualities that are valuable for the future. Biodiversity is not only defined globally;

it also applies to a more local level. For example, when one converts—as the Charles Leopold Mayer Foundation recently did—a major agricultural property from conventional to organic agriculture, one increases very visibly and quickly the local ecosystem’s biodiversity, because in regenerating it benefits from the biodiversity of a much vaster system, which it then contributes to maintaining. Biologists have shown that the biodiversity of the whole cannot be maintained, as some once imagined, by creating biodiversity conservatories, such as natural parks or gene banks. We thus find ourselves considering a fourth characteristic: system properties can only be maintained on the basis of a totality of local actions. In other words, we all share responsibility for the creation and the preservation of the common good.

Let us now consider a third example, that of the climate and the ocean. Our three characteristics—non-reproducibility, non-divisibility, and value for humanity—can be easily recognized in these examples. Even more than with biodiversity, it is clear that the climate and the ocean’s equilibrium are affected by the sum of our involuntary actions. No one intentionally destroys the ocean’s equilibrium or deliberately modifies the climate. And yet, the cumulative effect of billions of decisions produces these outcomes. This type of common good thus necessarily entails shared responsibility. It must be exercised by imposing constraints on behavior, but these constraints must be consistent with a principle of equity to which all can adhere and fall under the jurisdiction of an authority recognized as legitimate. This point will be developed in the chapter dedicated to oeconomy’s legitimacy. Finally, thanks to this example we encounter another property that is dear to economists, that of non-exclusive use: in other words, the fact that one person uses it does not prevent someone else from using it.

Cities and networks are our fourth example. With them we again find, though to a lesser degree, several characteristics found in the preceding cases. First of all, their values lies in

emergent properties. A city is not merely the sum of its buildings; a network is more than the sum of its paths. A private highway is valuable only insofar as it exits on to the regular road network. Otherwise, it would simply be a cul-de-sac that nobody would use. Furthermore, it is generally the product of actions that have built on and completed one another over the course of history. That said, one could not claim that these goods are strictly speaking indivisible. One can divide up a network, cut off one of its branches, or assign it to several managers; one can tear down a neighborhood; one can even, with enough time and money, build an identical replica of a town. However, this good or service still serves as a common ground on which people are able to plan their own activities. Its *raison d'être* lies in the fact that it is shared, even if one cannot, in the narrow sense of the term, speak of non-exclusive use: anyone who has been caught in a traffic jam or been unable to send an email via the internet can easily confirm this. But I am rather attached to the idea that there are goods and services to which anyone can have access. This is one of the meanings of *partager*: something that is held in common and on the basis of which action is possible.

The fifth example is the intangible and human capital that we described in an earlier chapter as one of the major preconditions of the modern economy. This again brings us back to the first shared characteristic: that of emergent properties of the system, where the whole is more than the sum of the parts. For instance, a stockpile of scientific and technical knowledge is a totality that cannot be broken down into discrete items of knowledge. In the same way, there is no doubt that the mass of knowledge and know-how available on the labor market is simply the sum of individual knowledge and know-how; even so, the fact that they coexist in a single urban space and on a single labor market make it possible to organize their mutual complementarity into a valuable production factor. As in the case of the climate, we can say that this good is the

product of a large number of actions. Consequently, we must thus think of it as being managed according to the principle of shared responsibility. As in the case of a city, we cannot say that strictly speaking this good or service is non-reproducible; however, it would certainly be lengthy, costly, and laborious to reproduce. Preserving and enriching it are a duty that preserves the interests, the rights, and the capacity for initiative of future generations.

A final example is what Victor G. Gorshkov (cited above) calls “*biotas*,” that is, vast natural spaces, such as the Central Asian steppes or tropical forests, which, he argues, play a central role in maintaining the stability of those parameters upon which life on earth depends. They share several characteristics with natural ecosystems. *Biotas* are non-divisible. The capacity to stabilize the parameters of life on earth is an emergent property of the system. Stabilization mechanisms cannot be reproduced artificially, because they bring into play millions upon millions of rules. Their existence is determinant for life on earth. On the other hand, even more than in the case of biodiversity, they are “territorialized” goods; their preservation and management are everyone’s concern, but they are essentially dependent on the actions (whether or not they are actually taken) of individuals or authorities living on a specific territory. As in the case with oceans, the world community must involve itself and property and sovereignty must be limited—in other words, subordinated to a certain number of rules made in the common interest. We must also consider the issue of solidarity: because these goods are being preserved in the interest of the world community, the latter must contribute to their preservation and management.

From the comparison of these different examples, several principles arise. First category goods and services can be in the global interest, yet still require local management. They require

that all levels of governance, extending from the local to the global, be carefully gradated, and that the various territorial levels respect the shared obligation to produce results.

In oeconomy, the totality of goods falls neither under the purview of the market, nor of traditional property rights—which, to the contrary, imply a possibility of being divided, reproduced, used exclusively, and a free choice as to whether to produce or not produce, or to use or not use.

### **Systems of Governance for First Category Goods**

*First category goods are clearly not to be situated in the same realm as commercial goods. They possess none of their characteristics. Yet this does not mean that they fall under public management.* We are condemned to impotence if we lock ourselves into the opposition between centralized public management and private management based on decentralized regulation.

The first reason for transcending this opposition is that first category goods, as we have seen in the case of oceans, natural or domesticated biodiversity, or intangible assets, are important factors of production and exchange. A large number of economic actors benefit from them. In many instances, it is due to the financial contributions of these innumerable beneficiaries that one can hope to gather the resources to preserve and maintain first category goods, which are essential to humanity's survival.

The second reason is that the development of these goods proceeds from a large number of decentralized decisions. The oeconomy of first category goods must thus consist of regulations that are themselves decentralized, seeking to encourage protective behavior, such as,

for instance, agricultural modes of production that contribute to maintaining biodiversity and that emit few greenhouse gasses.

The third reason for not seeing the two spheres as impermeable relates to the efficacy of incentives and sanctions. Because many first category goods are global in scale, managing them runs up against the weak legitimacy and inefficiency of global governance, whose wavelets disintegrate against the solid ramparts of national sovereignty. Moreover, countries who are economically militarily powerful enough to impose political constraints on recalcitrant countries are the first to exempt their own sovereignty from such constraints when their interests are at stake. They often go quite far in imposing on others constraints that are needed to preserve and develop first category goods. Can one imagine the United States requiring Russia to preserve the Siberian steppe or Brazil to preserve the Amazon rainforest when, over the past two centuries, it has so thoroughly exploited its own resources, as well as the world's? Clearly not. On the other hand, if one acts by regulating production and exchanges, by banning certain modes of production, or by involving consumers in the struggle against modes of production that imperil first category goods, this political obstacle can be bypassed.

In general, first category goods can be classified in terms of what I earlier called the “four types of capital”: tangible capital, intangible capital, natural capital, and human capital. One also speaks, to refer to important landmarks such as monuments or cities, of “humanity's heritage.” They all belong to what oeconomy, by its very definition, seeks to preserve and to improve.

Over the past several decades, scientific knowledge of these goods has increased, become better inventoried, and made more available at an international level. This is evident in inventories and classifications carried out by UNESCO on a number of sites belonging to humanity's heritage; in the Cartagena Protocol on Biosafety; in international commissions on the



greenhouse effect; in progress in the understanding of oceans; and so on. It is easier to pursue these kinds of improvements than to force the Russian or Brazilian government to make decisions, in the name of humanity's interests, that would be domestically unpopular or contrary to their short-term economic interests. Moreover, as the work of the World Watch Institute demonstrates, such inventories and oversight is a major area in which global civil society can invest.

*Systems of governance for first category goods stem from the fact that those who are responsible for their preservation are different from those who benefit from them.* I have already mentioned the cases of the Siberian steppes and the Amazon rainforest. The preservation of first category goods is often tied to a territory that places the people and communities who live where these goods are located into a kind of servitude through, for instance, restrictions placed on rights of usage, or prohibitions on forest clearings or the destruction of coastal mangroves—through, in short, limitations on property rights or sovereignty, or through requirements concerning the proper upkeep of certain locations, such as buildings, cities, or sites classified as belonging to humanity's heritage. But the beneficiaries are elsewhere, and exist on a completely different scale—namely, that of humanity as a whole.

For governance occurring on a local or a national scale, this problem is an old one, harking back to the origins of public finances.

In France, during the sixties, there was a vivid debate on this very matter: should the easements of urban planning be financially compensated? When an urban planning document declares “in the collectivity's interest” that a particular zone is unbuildable, even when construction there is technically possible, property owners are deprived of a potentially valuable good.

Should they be compensated on the grounds that they have been harmed by a decision made in the public interest? At the time, the answer was no, but the debate was never fully resolved. The non-compensation of urban planning's easements has perverse consequences. An urban planning document can be revised, and many property owners in unbuildable zones will speculate on this probability. Thus, in the Mediterranean zone, many forest and scrubland fires occurred because land was poorly kept by property owners who had no interest in its upkeep. In some cases, the fires were a direct response to the arguments that had been made against them. Was the zone declared unbuildable because it was forested? If my zone is unbuildable because it is forested, replies the property owner, then a fire or two should sort that out. This is why some collectivities developed much more reliable plans, which involved purchasing notarized private easements, making it possible to introduce a distinction between ownership of the land and ownership of its usage.

*The oeconomy of first category goods requires a combination of regulation mechanisms.*

Let us begin by considering two cases in which the oeconomy of first category goods requires a cap on total consumption: the emission of greenhouse gasses and the number of fish likely to be caught. To grant the use of such goods to those who can pay whatever it takes would amount, in the case of greenhouse gasses, to allowing developed countries to continue their emissions of carbon dioxide without restriction, while prohibiting poor countries from raising cattle on the grounds that cows produce methane, which is a greenhouse gas! Such a requirement would clearly be untenable. There is no escaping the principle of justice that usage quotas be allocated equitably, even if they are subsequently renegotiated on the free market.

The next question is that of knowing exactly who will negotiate the sale of the "usage rights." Let us take the example of halieutic resources. The experience of attributing catching

rights in fishing zones demonstrates, particularly in Africa, that the attribution by states is unsatisfactory: a state may deprive artisanal fishermen of their catching rights and sell them to foreign industrial fleets in order to bring in opportune hard currencies that pay bureaucrats' salaries. It is thus important to look quite far down the ladder when deciding how to allocate quotas. The allocation of "usage rights" must in the last resort be aimed at individuals or, in the case of catching rights, at local fishermen communities. They alone can decide to yield them, to negotiate, or to delegate negotiations to states. But these usage rights, as their name suggests, must not be conflated with property rights.<sup>127</sup> Their purpose is to preserve the common good by guaranteeing that it is "well used." To stick with the example of fishing, the distribution of catching rights could be made contingent on the respect of fishing practices and coastal management that protects the halieutic potential.

The examples of biodiversity or of preserving the halieutic potential brings into focus other possible forms of regulation. Experience has demonstrated that it is impossible to preserve shared goods in the name of the general interest when it is at the expense of those who use them most immediately, who live on the affected territory, and who need them in order to subsist. The latter must be treated as potential allies and not as predators or enemies. Arrangements must be made to ensure that they see that preservation is in their own interest. Numerous devices guaranteeing this end can be imagined.

In the case of domestic biodiversity, the first step is obviously to banish those existing economic rules that run completely counter to the goal of biodiversity. This is the case, for instance, with rules relating to the normalization of seeds. They have been adopted over the past

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<sup>127</sup> In many traditional societies, usage rights were highly differentiated, as shown by the variety of words used to qualify them. Because we have lost sight of the importance of first category goods, our vocabulary has become impoverished and reduced to such binary opposites as property/non-property. On this subject, one should refer to the work of Etienne Le Roy on Africa.

few decades to benefit of major seed companies on the pretext that they increase security, when in fact that undermine the preservation of domestic biodiversity. I will return to this example when considering the oeconomy of fourth category goods. The second step is to promote, through a combination of norms and incentives, agricultural practices that contribute to the preservation of diversity. The European Common Agricultural Policy will come around to these practices over time.

*The regulation of production and exchange must contribute to the oeconomy of first category goods.* Another efficient means of preserving first category goods is to act upon the conditions of production and exchange of the commercial goods that depend on them. This is effective in the first place because it is easier to tax or prohibit a good that is exchanged than to impose easements at the source. Next, and primarily, exchange involves a minimum of two parties. Exchange presupposes an agreement between someone who is selling and someone who is buying. This agreement has the advantage of bringing people out of their confinement in sovereign states. To put it in a more trivial way: if one cannot prevent a state from wanting to sell, it is possible to arrange things so that other states or consumers do not want to buy. This is the reason that it was possible, through the World Trade Organization, to establish an organization for settling differences and imposing sanctions that it has been impossible to set up in other domains of international life.

These mechanisms belong to the systems of governance applicable to first category goods. They can go as far as embargoes, as in the case of endangered species, but they can also include labels and citizens' campaigns. It is not to far-fetched to imagine that an attack on first category goods in one country could result in trade sanctions initiated by a group of other

countries, and not only those, as occurs today within the framework of the WTO, who are harmed from the standpoint of free trade.

Our laws recognize a duty to assist persons in danger. This could be extended to a duty to protect shared goods. This principle has inspired a number of initiatives taken by local communities in Europe, in which a region, a department, or even a municipality decides to prohibit GMOs on its territory on the grounds that allowing them would endanger biodiversity, at a domestic or natural level, in spite of the loud complains of the European Commission or of states claiming a monopoly of the right to legislate in this domain.

### **The Oeconomy of First Category Goods Demands the Specification of Levels of Governance**

The examples that have been considered have demonstrated that most of the first category goods are territorialized, that they are spread across vast territories, or that they are determined by a maze of individual and local decision-makers. They are “glocal” goods. Consequently, their system of governance must combine different levels of regulation and public decision-making, and different levels of governance.

### **2. “Second Category Goods,” Which Are Divisible When Shared and Finite in Number**

Second category goods are divisible when shared but finite in number. They are not, at least as far as their quantity is concerned, the fruit of ingenuity and human labor. Examples include water, energy, and fertile soil; they will serve as reference points for our discussion. Let us again remind ourselves of oeconomy’s definition: “the production, the distribution, and the use of goods and services” which “makes the best use of technical capacities and human

creativity, out of a constant concern to preserve and enrich the biosphere, to preserve the interests, the rights, and the capacity for initiative of future generations within conditions of responsibility and equity to which all can adhere.”

### **Examples and Characteristics of Second Category Goods**

The first characteristic of these goods is that they are limited resources. Consequently, the notions of production, distribution, and utilization become unusual in this context. It is better to speak of preservation, exploitation, improvement, and degradation. One produces drinkable water or one pollutes water. One exploits a waterfall in making use of its potential for producing hydraulic energy. One extracts and transforms coal, oil, or gas. One maintains, improves, or degrades soil fertility. These goods resemble first category goods in terms of their non-reproducibility. They differ from them because they are clearly divisible. Strictly speaking, they lack emergent properties of the system. Water resources and hectares can be either added up or handed out. In keeping with oecology’s definition, the distribution of this type of good and service must adhere to conditions of responsibility and equity. This is all the more necessary in that all three examples—water, soil and energy—are goods “of the highest necessity,” that is, goods whose consumption is indispensable to the well-being of humanity as well as of each of its members.

Their second characteristic stems from the fact that they are numerically finite, divisible, indispensable, and used in an exclusive way: these are all conditions that ensure that individuals will compete to control and use them. This is also the case in that all three of the examples cited can be used in multiple ways. Land is desired for agriculture, infrastructure, cities, industry, and recreation. Water is involved in all human activities, as is energy. One can only be terrified by

the extent to which consumption of these goods varies per person, ranging from a bare minimum in some societies, to the lifestyles common in the richest countries.

The third characteristic of these goods is that they can be defined both as “flows” and as “stockpiles.” One consumes energy, but one draws on fossil energy. One uses soils for agriculture, but one can deplete their fertility. One can waste water, but one can deplete or pollute the water table. In this way, the other criteria of oeconomy—“a constant concern to preserve and enrich the biosphere”—becomes essential. One can over-consume for a period, but it will be to the detriment of the “interests, rights, and capacity for initiative of future generations.”

Though the finite quantity of these goods owes little to human ingenuity—this is their fourth characteristic—it plays an important role in their conservation and in their mobilization in society’s service. A “natural resource” is not something that we pick or gather, but something that is quantitatively finite. Second category goods thus presuppose the creation of “actors, institutional arrangements, processes, and rules that seek to organize their exploitation, their development, and their reproduction (terms that replace, in this definition, that of production), the distribution and utilization of these goods and services,” in a way that “makes the best use of technical capacities and human creativity.” It presupposes the use of often sophisticated techniques and the creation of organizations that are capable of mobilizing them.

### **Equity and Efficiency: Two Necessary Conditions for the Oeconomy of Second Category Goods**

The characteristics of second category goods immediately situate them at the crossroads of two worlds: on the one hand, that of pure distribution, founded on the principle of justice, of

the kind associated with gifts; on the other, that of economic activity and the financing of maintenance and reproduction costs. “Between water, a gift of god that by its very nature is free, and the transformation of water into a commodity by the hands of private companies; between agricultural reforms seeking to redistribute land purely according to principles of social justice, and their appropriation by the richest if they are in a position to maintain their fertility, one must find the just path that meets the double requirement of equity and justice.”<sup>128</sup> These goods and their consumption are at the forefront of efforts to strike a balance between our way of life and the reproduction of the biosphere; their system of governance must enable the reconciliation of equitable distribution with the preservation and enrichment of the biosphere.

Like first category goods, these goods are by their nature situated. Some are mobile, notably oil and gas, and, to a lesser extent, water. Others are immobile, like the earth. The processes and rules of extraction, exploitation, distribution, and preservation that are applicable to them thus necessarily involve different levels of territory and governance.

A final and frequent characteristic of this type of good is the asymmetry that typically exists between those on the supply-side and those on the demand-side. In the case of water as much as that of energy, management today is dominated by supply-side policies. “Bringing water and fossil energy to the market requires powerful extractive organizations, whereas the consumption of these resources, which occurs in all human activity, is carried out by a very large number of users. Hence the emergence in the energy industry, and more recently in the water industry, of large corporations that dominate the supply.”<sup>129</sup>

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<sup>128</sup> Pierre Calame, *La démocratie en miettes*, 228.

<sup>129</sup> *Ibid.*, 230.



## **The Inadequacy of Traditional Responses to the Imperatives of Equity And Efficiency**

To manage scarcity, several hypotheses would appear at first glance appealing: the goods in question could be nationalized; they could be distributed in an authoritarian fashion; or they could be relocated to where they are produced and used in a way that ensures that everyone lives off of local resources and thus feels responsible for them. In actual fact, none of these solutions has proved entirely satisfactory.

Nationalizing land or water had led in practice to inefficient bureaucratic management. This is notably the case with land in the former communist countries. Their fertility has been damaged, often dramatically, by an instrumental and mechanical vision of nature—in Russia, which was once at the forefront of the scientific study of soil (“pedology”), or in China, where peasants, with the care of gardeners, maintained the fertility of the soil for millennia. Agricultural reforms are indispensable in many countries because of inequalities in the distribution of land and the poor use that is made of it when it is concentrated in only a few hands. However, their results are often disappointing, because they do not take into account the actual capacity of families to farm the lands that they are granted and because land redistribution is not accompanied by complementary measures, such as training and increased access to credit. The idea of freely distributing water contradicts the need to conserve it. It also leaves the problem of financing water networks, water processing, and water distribution completely unresolved. Some have suggested that water should be managed by public services at a territorial level. My own experience of working for the French government convinced me that this approach is not always advantageous. In practice, it too often runs up against the inflexibility of administrative and political limits, which were rarely conceived with an eye to the reality of ecosystems or drainage basins.

As for drastic relocations of resources and their usage, they are utopian, ridiculous, and unjust. It would mean that the Saudis would consume their oil while the Danes froze. Water, for its part, is not equally distributed across any territory, making it absurd to impose uniform rules concerning its preservation. To say that access to water is a fundamental human right cannot mean that the collectivity—which incidentally is an abstract concept—must commit itself to providing water to every family wherever it may choose to live. On the other hand, the principle of justice implies that a certain amount of water per person—an amount that varies with the climate—must in some way be guaranteed at a low price, with greater consumption being taxed proportionately, according to schedules comparable to the progressive ones use for income taxes. Efforts have already been made in this direction.

### **Quotas Negotiable at Different Levels: The Example of Energy**

It is also possible to consider generalizing the option adopted in the realm of energy in the Kyoto Protocol by creating “rights to consume.” Let us suppose, for instance, that everyone, at the beginning of the year, has in his or her electronic billfold a right to consume fossil energy that her or she can either use or sell to someone else. Available information systems make such a hypothesis entirely plausible. Let us consider it at a European scale. Suppose that each European was entitled to the same amount of tonnes of oil equivalent (the measure used for fossil fuel). This would be rationing, but negotiable rationing. At what territorial level and according to what form would this negotiation occur? We saw in the first part of this book that energy efficiency strategies allow for several different spatial and temporal scales.

This means that energy quota negotiations must first occur at the local level. Some energy is in any case directly consumed by the collectivities themselves, whether it goes to

energy distribution, public facilities, or industry. A local market for energy and an assessment of how much energy enters and how much leaves complement one another. Next, various local collectivities from the same region negotiate exchanges, with accounts being consolidated at the regional level, and then at the national and international level. This means that while each individual's electronic billfold is the starting point, the system quickly develops a hierarchical structure spanning from the local to the European level. At each level, surpluses and shortfalls are consolidated.

### **The Oeconomy of Second Category Goods and the Principle of Active Subsidiarity: The Example of Water**

One can achieve, through a comparable mechanism, the same objectives of justice and conservation in relation to water. Imagine that in a given territory, everyone has in his or her electronic billfold the right to a certain quantity of water at a price corresponding to the average cost of its reproduction. Everyone in this way becomes a shareholder of the local water company and, by the same token, acquires an interest in it being managed efficiently. On this basis, everyone can sell on the local water market amounts that they have not used or purchase what they need. Once again, the quantities allocated to cities, industry, and agriculture must be taken into consideration. In France, for example, even if these institutions have become bureaucratized over the years, it is certainly possible to take advantage of the expertise acquired by the Basin Agency to determine mechanisms for distributing water between various uses and various actors and options for remunerating water treatment. Redistributive mechanisms of this kind are already present in some countries, such as contracts struck between farmers and cities, in which the latter compensate the former to modify their farming practices in ways that protect water tables.

According to this scenario, what is the role of the European Union, and specifically the Commission? This role has already been outlined in the water directive, in its conception of services of general interest (SGI), and in the organization of a market for rights to consume energy that was first created to implement Kyoto's goals. One can imagine the Commission taking on four roles:

- It could define the conditions under which undistorted competition between public or private organizations seeking water contracts on a given territory could occur. The project requirements for this operation would include, in keeping with the twin goal of justice and efficiency, financing, distribution, treatment, and the organization of the local exchange market.

- It must make the best use of available experience to formulate shared guiding principles aimed at optimal management. These "obligations to produce results" remain at the heart of active subsidiarity. Water being a scarce resource, it is legitimate to demand that each local collectivity do the best that it can given the state of the art.

- The Commission can also, by drawing on this exchange of shared experiences, action, provide collective experience and advice to institutional arrangements that have proven themselves.

- It can, finally, be the forum for negotiating the management of major drainage basins, notably the Rhine or the Danube.

### **3. “Third Category Goods,” Which Are Divisible When Shared But of Indeterminate Quantity**

#### **Examples and Characteristics of Third Category Goods**

Goods and services belonging to the third category are divisible when shared but are above all the product of ingenuity and human work. They are primarily industrial goods and services providing personal care. Most of the consumer goods and appliances that fill our homes, from food to furniture, and from furniture to machines and computers; most of the services that make life agreeable; the organization of our cities, transportation, and recreation; most of the goods and services, finally, that are necessary for production, which naturally incorporate matter—metal, wood, silicon, many kinds of natural or synthetic molecules—but matter that, thanks to human work, intelligence, and creativity, has undergone a complete transmutation, to the extent that the service provided has only a distant relationship to the matter incorporated in it. One finds in these goods and services everything that has already been mentioned: exchange is society’s constitutive bond; oeconomy is a vast process for harnessing our accumulated knowledge and know-how to the service of our well-being. Thus according to a first assessment, these goods are of an indeterminate quantity. By this I mean that unlike first or second category goods, if they are divisible, they are also reproducible, and have no limits—at least, none other than the time that we devote to other people through artificial products and services, and the time which they in turn devote to us; and none other than the human ingenuity required to offer more services with less matter. The complex molecules in medicine; nanotechnology, which allows us to intervene at matter’s deepest level; a computer chip; the regulations with which everyday machines are riddled; telecommunication networks—not one of these, if I can express myself in

this way, is matter, but rather a distillation of intelligence, creativity, and organizational capacity caught in a bottle. They are symbolized by the increasing miniaturization of modern machinery—as if every day our capacity to distill intelligence into matter increased.

### **The Decentralized Oeconomy of Third Category Goods: The Role of the Market**

At first glance, third category goods would appear to be those to which market mechanisms apply most normally. Through billions of regulations, our needs and desires—whether they be the expression of our personality, an imitation of our neighbors, or the impact of advertisements (an idea dear to Monsieur Le Lay<sup>130</sup>) is another question—seek to coincide at a planetary level with products and services that not only exist, but are also available and within our reach whenever and wherever we feel the need for them.

Whoever walks in a European city and enters a store can only be fascinated, terrified, or astounded—depending on his or her mood or philosophical inclination—by the incredible profusion and apparent diversity of available goods and services. They are the reflection of a well-oiled system, of perfectly polished institutional organizations, be they organizations that are internal to production systems or that link production to distribution networks. This fascinating mixture of centralized organization on the part of major producing and distributing companies and of decentralized adjustment mechanisms is hard to match. In any case, centralized planning, which one might have thought would allow for an even more efficient allocation of resources than this combination of micro- and macro-regulations, has over time revealed itself incapable of rivaling it.

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<sup>130</sup> Monsieur Le Lay, the director general of TF1 (a French television station), made himself famous in 2004 during an interview with a journalist by saying out loud what had previously only been said by activists: “his station’s job consists in selling to Coca-Cola available human brain time.”

## **Traceability: The Heart of Third Category Goods**

To reflect on oeconomy, to undertake a radical critique of current modes of production and consumption, as well as the economic doctrines that underpin them, is not to deny the operational efficiency of the “market economy” or to blame it for all the evils under the sun (before taking advantage of all its practical benefits in one’s daily life!); it is rather to question these mechanisms in light of oeconomy’s goals. This questioning occurs in two stages: first, that of examining the market’s legitimate scope; secondly, that of considering whether, in areas in which it is technically legitimate, it meets oeconomy’s goals.

As we have begun to see, the market’s legitimate scope is that of goods and services that are divisible and the nature and quantity of which depends essentially on human labor.

As for its capacity to meet oeconomy’s goals, this question will be explored in depth later, but we already laid down a few markers in the preceding chapter. According to oeconomy’s definition, we must “organize the production, the distribution, and the use of goods and services (that is, third category goods) in order to guarantee for humanity as much well-being as possible [...] out of a constant concern to preserve and enrich the biosphere.” It is thus necessary that the production and consumption of third category goods keeps track of the human labor and the quantity of resources incorporated into them, measured, for instance, in terms of the MIPS (Material Input per Service Unit) defined by the Wuppertal Institute. Is this utopian? I do not think so.

Classical theory is, ultimately, much more utopian. It posits the existence of perfect information, that is to say, perfect knowledge of everyone’s desires and of all the possible ways to combine the means of production. This hypothesis is completely unrealistic, not only for practical reasons (i.e., the enormous mass of information that would have to be stored), but also

for theoretical ones, which George Soros has analyzed in his demonstration of the intrinsic instability of financial markets: we are always dealing with human beings who have a mutual influence on one another. The system is reflexive: the behavior and preferences of some influence the behavior and preferences of others. There is no reason that systems like these should be stable.<sup>131</sup>

The hypothesis of perfect traceability is, in comparison, far more modest and realistic. It states that we have all the technical means necessary to indicate, at each stage of its production and distribution, the quantity of labor, resources, and energy that has been incorporated into a particular good or service. I have no doubt that when Paul Delouvrier created the valued added tax (VAT), many people complained of the terrifying complexity of the system, since it required, in order to avoid double counting, recording, for every transaction involved in the production of a good or a service, the added value that had been incorporated at earlier stages. The idea of the perfect traceability of a product is a mechanism of exactly the same nature. Traceability provides consumers with essential information: does the good or service depend on human labor, which strengthens their relation with the rest of society, or does it depend on resources or finite energy reserves, which brings them into competition with others and impoverishes the biosphere? It is also technically feasible. Today there are electronic systems that allow one to pass a shopping cart in a supermarket through a scanner which calculates how much the shopper must pay upon exiting. This kind of traceability and computation make it possible, at a territorial level, to determine the flow of resources and human labor that enter and leave in a much more detailed way than do current calculations of “ecological imprints.”

Moreover, even if we don’t dispose of precise data about a product’s path throughout the value chain, we do have access to summary estimates of the “ecological rucksack” of basic

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<sup>131</sup> George Soros, *Crisis of Global Capitalism*.



industrial products.<sup>132</sup> Beyond raising consumer consciousness, traceability could also serve as a basis for electronic billfold mechanisms of the kind considered in relation to second category goods, in which the only limit on buying human labor would one's purchasing power, while consumption of resources and energy would be limited by quotas. Moreover, this type of computation is necessary to bring our considerations of water and energy to their logical conclusion: one must take into account not only their primary, but also their secondary usage—that is, insofar as they are incorporated into the third category goods that we consume.

The Wuppertal Institute became famous several years ago for calculating the quantity of liters of water and fuel consumed in Brazil needed to produce orange juice consumed in Germany. In *La Consommation Assassine (Murderous Consumption)*, Sandra Postel and Annie Vickers observe that industries, especially in the agro-alimentary sector, are responsible for 59% of global usage of soft water. Suren Erkman, in his book *Vers une Ecologie Industrielle (Towards an Industrial Ecology)*, provides many examples of resource consumption being incorporated into consumer goods. He shows, for example, that the consumption of oil and water required for one liter of American orange juice is infinitely superior to the Wuppertal Institute's calculation for the consumption of Brazilian orange juice in Germany. His statistics are mind-boggling: one liter of American orange juice requires a total of one thousand liters of irrigated water and two liters of oil.<sup>133</sup> Given the nature and lightness of electronic chips, the numbers for electronics are, again according to Suren Erkman, even more mind-boggling. To produce 750 tons worldwide of pure silicon for our electronic chips, 800,000 tons of metallurgical-grade silicon, 100,000 tons of chlorine, 200,000 tons of various acids and solvents. Thanks to these examples, the meaning of traceability becomes clear. An electronic billfold that would keep track

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<sup>132</sup> See, for example, Noah, "Ecological Rucksack for Materials Used in Everyday Products," in *Friends of the Earth*, Denmark, 2005.

<sup>133</sup> Suren Erkman, *Vers une écologie industrielle*.

of the consumption of both human labor and the consumption of resources would radically transform the organization of production, exchange, and ways of life.

Traceability has a second merit, one that relates to human labor: it makes social bonds concrete. When farmers in France, Argentina, or Canada haul wheat to the world market, they produce an anonymous good that goes to anonymous users. From the standpoint of oeconomy, this anonymity implies loss of human contact, and thus a diminution of life's value. When consumers are attracted to regional products, it is often out of nostalgia: the idea of a "regional product" is bound up with that of artisanship, tradition, and quality. But more profoundly, they are also attracted to products that are not anonymous, but refer to a concrete reality—and it matters little if it is real or mythological.

The same desire to relinquish anonymity leads checkout assistants in supermarkets to wear badges bearing their first names. Because there is a personal bond, transactions evoke, however trivially, the idea of a social contract. For these reasons, the personalization of services continues to grow, even in large public services with bureaucratic traditions. When one knows the name of the person who took care of you, or who looked after your file, service once again has a human face. There are even industrial products produced on a mass scale in which one finds the name of the individual who was responsible for quality control. I doubt this has much impact if the product has some kind of deficiency, but its symbolic value remains important.

For social bonds also imply mutual responsibility. For instance, clean clothes campaigns still only affect a fraction of international trade, but they have a powerful symbolic role in the way that they affirm that consumption of third category goods and services have a human impact which it is important to be aware of.

### ***The Oeconomy of Third Category Goods and Collective and Individual Preferences***

Let us turn now to the organization of the production and distribution of third category goods and services. Through billions of more or less independent decisions to produce, to distribute, and to consume, the relationship between supply and demand is formed and adjustments occur. The system is profoundly asymmetrical. Supply is more and more organized and concentrated, while demand is more and more atomized and decentralized. The immediate adjustments that occur through the price mechanism plays only a secondary role, at least in the short term. Only in open-air markets are a kilo of tomatoes a bargain at the end of the day! Price-fixing strategies and competition between essentially identical products is an enormous subject that is discussed in an abundant literature, which I will not attempt to address. This is not where the essential lies.

There is another question, however, that does merit consideration: that of the relationship between individual and collective preferences. Collective preferences are not the sum of individual preferences, nor are the latter immune from the effects of imitation or prestige—in other words, from collective preferences. This phenomenon is particularly striking in the case of children and adolescents: to be like others, to play the same games, or to wear the same clothes count infinitely more than the nearly meaningless question of whether these clothes are attractive or comfortable “in themselves.” Companies and marketing departments know how to play on the link between individual and collective preferences when they bring a product to the market. It is, after all, their job. Our society, however, lacks the tools to formulate collective preferences. Though we are quick to mock our schizophrenia as consumers, which makes us advocate as citizens organic agriculture that is respectful of the environment, but ill disposed as consumers to pay the extra cost at the checkout counter, there is no escaping the fact that we express ourselves

differently when we speak of collective rather than individual preferences. But if we return to oeconomy's definition—"the distribution and use of goods and services in order to guarantee for humanity as much well-being as possible"—it clearly implies collective reflection on the production, distribution, and use of goods and services. In the following chapters, I will propose, on an experimental basis, a new mechanism for expressing collective preferences at a territorial level, a level at which collective preferences can be made to resonate more easily and tangibly with individual preferences.

### **A Misleadingly Clear Concept: Added Value**

The oeconomy of third category goods raises another question—that of added value. Does all activity have value? Does it bring value to goods and services that are consumed? The notion of “added value” plays, however unintentionally, on the ambivalence of the word “value” itself: is it something added to the commercial value of things, or is it the very thing that makes them appear valuable to us?

Added value, for a company, is measured by the difference between the product when it is sold and intermediate consumptions. Strictly speaking, added value is not measure by the intrinsic quality of the product, but simply by the possibility of finding clients willing to buy it at a particular price.

The added value of human labor is measured, in the first instance, by the price of salaries.<sup>134</sup> It thus consists of “added labor” rather than “added value”—an essential distinction. Salary is a cost; it tells us nothing about the actual value that this labor adds, but only that the consumer has consented to pay it. While analyzing ten years ago the operation of financial

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<sup>134</sup> Thomas Piketty, *L'économie des inégalités*, La Découverte, 1997.

markets and the role of middlemen,<sup>135</sup> I concluded that in the case of service activities it was impossible to distinguish “added value” from “subtracted value.” What these terms measure are management costs paid to a financial middleman; in other words, his capacity to withhold a share of the economy for his own profit. The obvious question is why the business owner is prepared to pay for these services if they are not really useful. What service is actually rendered to the client and to society as a whole? A service clearly must be rendered—if not, the economic world would be composed entirely of simpletons. But is the service proportional to the size of its cost? There is reason to doubt it. In any case, this means that the cost of management in relation to supply and demand is considerable.

### **The Inevitable Revolution of Intermediation**

What has been said about financial services can also be more or less applied to industrial goods. From a narrowly productive perspective, added value is, strictly speaking, the direct activity of producing a product—in other words, the sum of the hours of labor that went into it. Everything else seems, somewhat naively, to be a parasitic expense. But, in reality, the immediate production costs of goods that we consume amount to somewhere between 10% and 20% of the price we pay. And where does the rest go? I mentioned this when discussing Daniel Cohen’s example of a pair of Nikes. All that is required is a consideration of the evolution of the job structure in underdeveloped countries and of how we live. Design, organization, research and development, accounting, public management, financing, quality control, marketing and commercial expenses, distribution, insurance, and risk management: economic activity is essentially tied to transaction costs. We thus find ourselves very far from an efficient and inexpensive mechanism in which supply meets demand. Transaction and intermediation costs are

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<sup>135</sup> See in particular Paul Dembinski, *Marchés financiers, une vocation trahie ?*, Éd. Charles Léopold Mayer, 1994.

such that there are always innovations appearing that seek to reduce them. This is the constantly recurring cycle of mass retail, which begins with discount stores that scale back on displays, product variety, advertisement, and margins, which then evolves towards more “high class” functions while expanding its margins by introducing more product variety, only to be ultimately marginalized by a new wave of discount stores that adopt the same approach.

The internet, and, more generally, the combination of computer technology and telecommunications that makes the internet possible, will, in the upcoming twenty years, modify the way that supply and demand interact in even more radical ways. A new wave of de-intermediation between producers and consumers can be anticipated. Will we know how to combine it with the need for traceable products and the search for more sustainable production and consumption models? This is one of the challenges of the years to come.

#### **4. “Fourth Category Goods,” Which Multiply as They Are Divided**

##### **Goods that Multiply as They Are Divided: The Oeconomy of the Holy Spirit**

A vast redistribution of wealth from formerly developed countries to the rest is desirable, inevitable, and already underway. Will this redistribution be achieved through a pitched battle or through collaboration? Will the citizens of currently rich countries consent to sacrifice their way of life, or will they launch a desperate resistance? These are the essential political questions of the twenty-first century. Sapper Camember<sup>136</sup>—an old French comic-book hero—knew only one way of filling up a hole: digging another one, and then using the latter to fill up the former. It is

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<sup>136</sup> Translators note: Fireman Camember (*Sapeur Camember*) was the hero of one of the first French comic strips, *Les Facéties du Sapeur Camember* (1890-1896). He represents an illiterate and simple-minded French soldier.

imperative to get out of the Sapper Camember economy and take a greater interest in goods and services that multiply as they are divided, rather than simply being cut up. Life in society, in small groups, in families, or in communities is nourished by sharing and by relationships that lie outside of commercial relations and are founded on a kind of sharing that multiplies what everyone receives. Love, joy, and friendship network are like this: what I give to someone else is not something that I lose.

In a heavily populated, fragile world with finite resources, in which the purpose of oeconomy is to “guarantee for humanity as much well-being as possible by making the best use of technical capacities and human creativity [...] and in conditions of responsibility and equity to which all can adhere,” the well-being of all cannot be achieved simply by working more. Jesus “ordered the crowds to sit down on the grass. Taking the five loaves and the two fish, he looked up to heaven, and blessed and broke the loaves, and gave them to the disciples, and the disciples gave them to the crowds. And all ate and were filled; and they took up what was left over of the broken pieces, twelve baskets full.”<sup>137</sup>

Must we count on the Holy Spirit to resolve the delicate problem of how to share the planet’s scarce resources for us? Without going quite so far, it still might inspire us to seek out, in the contemporary world, goods and services that multiply when they are shared. To grasp what we are talking about, we will again flesh out the concept with the help of several examples.

### **Examples and Characteristics of Fourth Category Goods**

Our first example is life, or, specifically, the genetic code. From the cell to the human being via plant seeds, life is a process of duplication and multiplication. “Be fruitful and multiply,” says the Book of Genesis. Naturally, duplication requires external resources, nutrition,

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<sup>137</sup> *The New Oxford Annotated Bible, with Apocrypha*, Matthew 14:19-20.

and energy; but these are incommensurable with the sophistication of the organism that is thus reproduced and multiplied. It thus becomes clear that one of the meanings of the phrase “to multiply while sharing” is modest costs of duplication, costs that bears no relationship to the object or the organism itself. Computer technology and the internet opened the door very suddenly to mechanisms allowing for multiplication and duplication at low cost. The costs of stockpiling, of distributing, and reproducing a musical CD now approach zero. The entire classical economy of books, music, and entertainment has been called into question by this new reality.

Let us now take a second example: farming seeds (*séances paysannes*). These are seeds that have been selected by growers. By putting their selections together, they increase considerably the biodiversity of the shared gene pool. But it is important to understand that when we say that this gene pool is “shared,” we mean that every member of the network has access to the gene pool’s entirety. In this example, unlike the preceding ones, two mechanisms come into play. In the first, which has already been described, duplication costs little or nothing. The second is mutualization: by giving, I not only keep what I already have, but in exchange for my gift, I receive a similar gift from my partner. The gift and counter-gift are not balanced out because the sacrifices made by each party in pursuit of its goal are equivalent. On the contrary, each party held on to what it gave away. Balance here does not imply proportionality but reciprocity. The mutualization involved in this case is not one of risks, as with insurance. It refers to symmetry of attitudes rather than an equivalence of gains. It involves everything related to information and knowledge; it follows the axiom: one divided by two equals two.

Let us turn to the case of free software or to the sharing of experience. Free software satisfies the two criteria that have already been identified: the duplication of part of a program or



of a few lines of code cost nothing; by mutually offering one another parts of a program, a program is completed. This exchange has a third property, which in relation to first category goods we called an emergent property of the system. A combination of programs produced the software: it is the assemblage and complementarity of the parts that gives the software its value. In the example of free software as in that of farming seeds, the process of mutualization is a gradual one. Improvements never end. The back-and-forth between use and improvement guarantees that the software or the seeds are adapted to needs. Better still: it is by using the good that it becomes more available. Those who belong to my generation remember the advertisement: “Wonder batteries only run down if you use them.” To the contrary, fourth category goods run down only if they are *not* used.

A further characteristic is that the very activity of producing farming seeds or of improving free software, far from being experienced as “work” in the negative sense of the term, is actually inherently gratifying: the direct bond between production and usage, as well as that between the pleasure of creating and the pleasure of sharing transcends the conception of work as drudgery. I have already cited the works of several sociologists who discuss what “living well” means. We must recall them here: “societies organized around ‘living well’ encourage interaction between family, friends, and neighbors [...], [as well as] a more sustained attention to accomplishment, completeness, and creative expression, rather than the accumulation of goods.” This clearly means that the inclusion of individuals in the activity of mutualization is worthwhile not only because of what one receives from others but also, and perhaps primarily, because of the pleasure of participating and developing connections. The dazzling success of Wikipedia offers a perfect example of the developmental logic of fourth category goods. Thousands of volunteers

interact daily, according to clear rules that distinguish between the tasks of editing, correcting, and oversight, to produce and to make freely available to all a common encyclopedic knowledge.

Let us now consider the case of exchanging experiences. For years I have been convinced that the kind of knowledge that is most useful to action is born from action itself and the experience of others. This intuition led me to become interested in the mechanics of how experiences are shared. In this context, we find first of all the two basic elements of fourth category goods: the costs of reproduction or duplication are modest or nil; and one keeps what one gives at the same time that one receives something new. But an analysis of processes for exchanging experiences brings two additional insights. The first is that representing one's own experience is a source of satisfaction. When our Foundation began to support programs for sharing experiences, it overlooked this psychological phenomenon and thus misinterpreted it. Our system of exchanging experiences was founded on the idea of barter. We began with the hypothesis that what would make someone interested in sharing his or her own experiences was the desire to learn about that of others, following gift/counter-gift dynamic that I mentioned earlier. But in practice, people experience a deep satisfaction in representing their own experience, and in the end express relatively little curiosity concerning the experience of others! How does one explain this paradox? By the fact that in transforming lived experience into a story deemed worthy of transmission, one affirms oneself as subject and as the author of one's own destiny. This overlaps perfectly with the definition of "living well": it is a product of "creative expression rather than the accumulation of goods."

Based on this observation, one could almost conclude that one must reverse the classic argument: the unbridled consumption of material goods, far from being a prerequisite for happiness, is simply a compensation for the frustrations of life and, in particular, for the absence

of creative activity. We have all yielded at some point to impulsive purchases in response to one dissatisfaction or another.

Close observation of experience exchange also taught us another lesson. Exchanging experiences at an international level on a particular subject allowed us to detect deep similarities lurking beneath contextual differences in a way that generated radically new knowledge. The description of a single experience makes it impossible to grasp what, in the chain of events, is the product of particular circumstances or chance occurrences and what is the consequence of the inner structure of the situation. Only exchange makes it possible to distinguish between the two. Exchanges of experience thus have their own emergent properties, that of producing knowledge that would be inaccessible without the possibility for comparing different experiences. Not only do I hold on to what I have given, and not only do I receive—we also produce together: the new “whole” is greater than the sum of its parts.

Until now, our reasoning has focused on the moment of the exchange. But what happens when it occurs over time? Let us take the case of knowledge and experience. We previously described a capital of knowledge and experiences as a first category good, one that is neither divisible nor reproducible. Are we not now contradicting ourselves by describing the processes of exchanging knowledge and experience as fourth category goods? No; simply there is a considerable similarity between first category goods and fourth category goods. The latter maintain and nurture the former. The example of farming seeds illustrates this well. A network for exchanging farming seeds is a means for maintaining or developing biodiversity, which is itself a first category good. To say that the totality of available knowledge is neither divisible nor reproducible means that dismantling it would destroy essential emergent properties of the

system. Similarly, if everyone in a factory took off with a piece of machinery under his arm, the process of production itself would become impossible.

Let us take another case, that of what is usually called “social capital”—the network of social relations in which everyone is enmeshed. Social capital is an extension of ourselves into our relations with the world; it is an essential element of our well-being. Social capital is also a good that multiplies as it is shared. And yet the cost of its duplication is neither modest nor nil. On the contrary, social capital builds up slowly. At the same time, sharing one’s social capital with others by no means involves losing it.

### **The Two Functions of Fourth Category Goods: Direct Usage and Factor of Production**

The examination of social and knowledge capital brings us not to the nature of fourth category goods, but to their use. I will distinguish between two kinds: the direct use of these goods as sources of well-being, and their use as means of production or governance.

Social exchange, access to information, the sharing of knowledge, and music are goods and services whose use engenders well-being, and this is the reason that many would like to transform them into saleable goods. If one analyzed the way that individuals or societies budget their time or use their monetary resources, one would see that the poor devote the largest share of their budgets to survival and subsistence, while the rich devote the most to leisure, in the broadest sense of the word. There are good reasons for thinking that this shift gives ever an expanding place to what could potentially be fourth category goods.

The incorporation of fourth category goods into the processes that produce and distribute goods and services of all kinds has become considerable. They constitute most of what we call

intangible capital, and they are determinant for transaction costs, whose central role in the economy we have discussed.

### **Free and Mutualized: The Two Wellsprings of the Oeconomy of Fourth Category Goods**

Recognizing the importance of fourth category goods for the future of the economy, hardcore proponents of the free market stumble over themselves to attempt, despite all evidence to the contrary, to force them into market mechanisms by appealing to intellectual property and patent law—laws invented for other purposes, and in the framework of other technological frameworks. Authors' rights were invented several centuries ago to protect the interests of the weak against those of the strong and to compel recognition of the right of an artist to control the use of his or her intellectual production. But today they tend simply to provide guaranteed income to the publishing and media industries, as they become ever more concentrated.<sup>138</sup> Similarly, patent law was invented to remunerate technical innovation that increased the efficiency of production factors or that created a new product or a useful service. But by definition, these innovations were difficult to reproduce. It is thus a complete misinterpretation, as well as an abuse of dominant market positions, to now claim that the very same law can be extended to knowledge and—even worse—to life itself. Activists who are firmly opposed to this evolution have made no mistake. Nor is it an accident if the popularity of Monsanto, the firm that so enthusiastically promotes genetically modified organisms (GMOs), collapsed when, with astonishing obliviousness, it dubbed “Terminator” a gene that, when introduced into plants, made them incapable of reproducing. The firm claimed, perhaps in good faith, that it wanted to protect ecosystems from the risk of the uncontrolled reproduction of genetically modified plants

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<sup>138</sup> This information was collected in September 2004 during the International Forum of Culture in Barcelona, specifically the talk by Joëlle Farchy during the roundtable on “Rights and Cultural Policies at the National, European, and Global Level.”

that were resistant to pesticides. But, in so doing, it left no doubt that at least symbolically it had sided with death over life. It is for the same symbolic reasons that activists call “merchants of death” pharmaceutical firms that oppose the reproduction of medicines necessary for fighting AIDS in poor countries -in order to secure their return on investments.

To touch the symbol of life itself, to sequester the living by privatizing it, to forbid someone, in the name of the sacrosanct rights of intellectual property, to freely reproduce a living mechanism upon which one’s survival depends, is to let the market economy penetrate into domains where it is not legitimate.

## **5. Summary of Systems of Governance Applicable to Different Categories of Goods**

This consideration of different categories of goods and services has shown their extreme diversity. Even if the “share-and-divide test” that led to their classification into four categories proves itself to be particularly pertinent for oeconomy, each of these categories contains goods and services with different characteristics, leading to systems of governance that themselves may be quite different. We are far from the simplicity of the market economy, which considers all goods and services to be similar. But this diversity is the very condition of their relevance! Is not the art of governance that of coordinating different kinds of action? And is not one of the five fundamental principles of governance to find institutional arrangements adapted to the goal pursued?

## Chapter 3: The Legitimacy of Oeconomy

### 1. Oeconomy Must Be Legitimate

#### *“The World Is Not For Sale”*

This short sentence is the alter-globalization movement’s historic achievement. It stops in its tracks what Philippe de Woot, referring to the modern corporation, has called the “unbound Prometheus”: the unbridled expansion of commerce at the expense of all other kinds of relationship, society’s gradual dissolution into a purely instrumental construct, and the eradication of politics and the sacred. The slogan clearly leaves no doubt as to the questions that underpin it. What makes system of production and exchange legitimate? On this basis, why is the current system illegitimate? And what are the social consequences of trying to develop an illegitimate system?

To answer these questions, we must first clarify the difference between legality and legitimacy, terms that are often conflated. “Legality” refers to the elaboration of rules that are consistent with existing laws and to the fact that individuals and organizations, particularly those in power, obey them. “Legality” thus relates to concrete fact. “Legitimacy,” however, is an ideal. It expresses society’s aspiration to be well-governed and to undergo constraint only to the extent

that it serves the collective interest: it is acceptable that authority constrain me, as long as I feel that it does so in my (or society's) interest.

Over the last fifty years, democratic societies have discovered that legality alone does not render power legitimate. Legality became recognized as a political dead end. If democracy means that citizens chose their own laws and rulers, how could they later decide that these laws and leaders were illegitimate? Strange as it sounds, this has clearly happened.

To what extent does legitimacy apply to producers, distributors, and the financial sector? Political power's legitimacy derives from the fact that it limits each individual's freedom and autonomy in the interest of the common good. Can legitimacy thus understood be extended to companies, supermarkets, and banks? Corporate executives do not restrict individual freedom and autonomy in the same way that legal restrictions or fiscal regulations do. However, in my view, the question of legitimacy is applicable to power in all its forms. Let us consider an example. Since 2003-2004, there has been a great debate, in the United States as well as Europe, over executive salaries. Corporate boards replied to their critics strictly on the basis of legality: chief executives are appointed by corporate boards, which had no objections to these salaries, which themselves was approved by the salary committee ... and so on.

But the "legality" of these decisions did nothing to make the situation less scandalous. This was not merely a debate internal to corporations; it was a debate occurring within society at large. Major corporations are, as it has been said, the "pivotal actors" of our age: the entire



system is built around them. They play a decisive role in determining our hierarchy of values and in distributing social status. The hierarchy implicit in corporate salaries reflects society's self-image. Moral guidelines are even more important than laws to social cohesion. Consequently, society does not see the public regulations that companies are required to follow and the private rules resulting from its internal organization as separate realms, one public and the other private. Rather, they are seen as two mutually constitutive components, which reflect social values and that must thus be exercised in a legitimate way.

Any power, be it public or private, must be considered in terms of its legitimacy. This question applies both to power's origin and to its practice. The problem of legitimacy is simultaneously a philosophical, ethical, historical, political, and sociological question. Our present economy refuses to distinguish the juridical problem—a company's legal status and the law that regulates its activity—from operational issues—the optimal actions required to achieve a company's goals. Consequently, we simply accept the assumption that the market's "invisible hand" will inevitably result in the common good. While this could potentially be true of a network of small companies, in which no one company has an identifiable impact on social life, it becomes absurd when the vast majority of production and exchange is structured into major global supply chains, which themselves are organized by and around multinational corporations.

This is so true that corporate leaders have begun to define the common good in their own terms. Is this taking things too far? Paul Dembinksi, in *Finance & The Common Good/Bien*

*Commun*, describes a report published in early 2006 by the World Business Council for Sustainable Development (WBCSD).<sup>139</sup> It presents “enlightened corporate leadership’s” vision of business’s future role. With no hint of irony, the authors describe themselves as “tomorrow’s leaders.” Taking note of the inability of political leaders to manage a globalized world, they assert their moral obligation to take command. This is the kind of rhetoric that has become familiar at Davos. One can only applaud this sense of responsibility; however, what follows sends shivers down one’s spine. “Tomorrow’s leaders” deem that “shareholder values” (i.e., profit on investments) is the moral standard that business offers to society. They further believe that business must enter into realms of human activity to which it has hitherto been denied access, bringing more people into the market system, and thus making them happier. Paul Dembinksi concludes: “tomorrow’s” [self-proclaimed] leaders” take themselves to be the judges of the common good, as if they had particular insight into what it is and how it can be attained! This is the breathtaking pretention that the slogan “the world is not for sale” denounces.

For oeconomy, the question of legitimacy can be approached from two angles: the legitimacy of the system and the legitimacy of actors. In this chapter, I shall focus on the latter. The legitimacy of the system will be addressed when considering the institutional arrangements that organize production and exchange. Oeconomy’s legitimacy arises from the ability of human societies to subordinate production and exchange mechanisms (i.e., the economic system) to

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<sup>139</sup> *Finance & the Common Good/Bien Commun* 24, Spring-Summer 2006, Observatoire de la finance, Geneva.

non-economic ends and to create mechanisms that optimize the use of scarce resources. The two ideas are related. Even a child knows that to make the best of scarce resources, you need to know what you are trying to achieve! An old Chinese proverb says: “When the wise man points to the moon, the fool looks at his finger.” Our exclusive focus on optimizing mechanisms and our ignorance of ultimate ends have turned us into a society that can only stare dumbly at the wise man’s finger.

Speaking of China, let us consider Lu Jia. Twenty-two centuries ago, he wrote *New Principles of Politics* (or *Xinyu*) for Liu Bang, the founder of the Han Empire. Its purpose was to explain why certain dynasties last.<sup>140</sup> “Why do regimes fall?” he asks. His answer: because they are based on false principles and unworthy men. He adds: “The more wars that Qin [China’s famous “first emperor”] fought, the more insurrection raged, the more the law punished, the more the empire went up in flames.” Under a legitimate regime, however, “subjects are respectful without the threat of punishment and zealous without the hope of reward.” This outlook is worlds apart from the values that lead to the brutal dismissal of CEOs who fail to give stockholders their much hoped for profits or that dangle stock options before greedy executives. Lu Jia offers a perfect definition of legitimacy’s two major elements: just principles and worthy leaders (by worthy, I mean that they are both competent and reliable). These are the two elements that this chapter will explore.

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<sup>140</sup> Liu Jia, *New Principles of Politics*.

## **Applying the General Principles of Legitimacy to Oeconomy**

In my previous book, I identified five criteria that define legitimacy:

A. Power must be exercised in the name of a need expressed by a community, of a common good;

B. Power and its rules must be fair;

C. Power must be exercised in a way that is consistent with shared and recognized values and principles;

D. Power must be exercised efficiently by competent and trustworthy leaders.

E. Legitimacy Implies the Principle of “Least Possible Constraint” must be exercised according to the rule of the lesser constraint.

In what follows, we shall use these five criteria to consider what makes an oeconomy legitimate.

### *A. Oeconomic Activity Must Fulfill a Communal Need*

A company is only legitimate to the extent that it contributes to the common good. Yet when arguments for the common good lose their relevance and urgency, constraints imposed in their name will be increasingly ignored, losing their legitimacy in the process. The same

principle is also at play within companies. In an economy that increasingly relies on cooperation and mobilizing knowledge, talents cannot be enlisted in the kind of mechanical way appropriate to hiring workers for an assembly line. You can't address slices of "available brain power" (as Patrick Le Lay, the CEO of the French television station TF1, once put it, speaking of the way commercials often appeal to viewers). This is so true that there are even those who prefer perfunctory jobs that keep their minds free to "difficult" jobs requiring them to devote their mental energies to goals that are not of their own choosing. As added value is increasingly produced by non-mechanical labor, and as mechanical labor is either automated or replaced by cheaper manpower in other countries, it has become increasingly necessary to convince all employees that the pursuit of purely economic ends (i.e., profit) contributes to the common good. Yet when this charming fable loses credibility, companies find themselves compelled (often publicly) to consider the social value of what and how they produce.

A study of the oil sector commissioned in the early 2000s by the investment bank Goldman Sachs suggests why companies must recruit talented employees.<sup>141</sup> Adopting the perspective of a long-term investor, the report essentially recommends investing only in oil companies that are already deeply committed to renewable energy and that have acted as "good citizens" in their host countries. While this statement is interesting in itself, the reasons for which Goldman Sachs chose to endorse it are even more instructive. The oil business, according to

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<sup>141</sup> The report is available on Goldman Sachs' website: <http://www2.goldmansachs.com>.

Antony King, the report's author, is growing increasingly complex. It participates in a competitive international market. It depends on drilling and transportation techniques that are becoming increasingly sophisticated, even as accessible resources diminish. In other words, the days when all an oil entrepreneur needed to become rich was a geologist to find a place to drill and a driller to drill a hole are definitely over. The companies that will be successful over the long run are those that can manage complex projects. And this depends on their ability to attract young talent. Yet talented young people, the report observe, are not motivated by money alone. Offering them piles of money is not enough: they want meaningful lives. Imagine that! Would they even consider working for companies that deliberately ignore the common good?

The Goldman Sachs report reaches conclusions similar to those of the international investigation led by Vincent Commenne and Écosol on the social and environmental responsibility of economic actors.<sup>142</sup> Of the various factors that contribute to a sense of social and environmental responsibility, Commenne places the search for “meaning” near the top. The more employees are qualified and potentially mobile on the labor market—i.e., the more attractive they are to companies—the more the meaning of their work is likely to matter to them.

A philosophy teacher at a prestigious business school once told me: “My students fall into three groups. First, there are the madmen, who are completely invested in the system, think of nothing but their careers, and will continue to do so, without regrets, for the rest of their lives.

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<sup>142</sup> Vincent Commenne, ed., *Responsabilité sociale et environnementale: l'engagement des acteurs économiques*, Éd. Charles Léopold Mayer, 2006.

Then there are the seekers, who wonder about the meaning of it all—and particularly the meaning of traditional business; they tend to seek out careers in not-for-profit organizations, even if this means they will earn considerably less than in business jobs. Finally, the largest group is always those who fall somewhere between these extremes: they believe what they are taught, yet, forty years down the road, they find themselves lying on a shrink's couch.

Corporate legitimacy also depends on the social prestige of top executives. Gilles Merritt, the chairman of Friends of Europe and a former correspondent for the *Financial Times* (who, consequently, can hardly be suspected of leftism) once observed that “companies have already lost the media war.” A Gallup Institute international public opinion polls confirms this insight. In terms of public trust, corporate executives come in near the bottom (only politicians fare worse). For a system that is supposedly based on democracy and business, this news is hardly reassuring. But it gives us a concrete example of the discrepancy between legality and legitimacy. Thierry Jeantet and Jean-Philippe Poulnot have analyzed the recent popularity of businesses based on the principles of “social economy,” which, once the late nineteenth-century enthusiasm for mutualism lost out to unrestrained global competition, seemed on the verge of losing their identity. Three billion people, Jeantet and Poulnot observe, participate directly or indirectly in cooperatives (you, reader, may also participate through a mutual company). The reason that such companies are being born again is that they are congenitally concerned with the nature and

distribution of the goods they produce, as well as with the right of each individual to be a full-fledged economic actor.

While legitimacy is a question that companies grapple with internally, it is one posed even more acutely externally. In a previous chapter, we showed that when companies seek to apply market laws to the production and distribution of goods that by their very nature fall outside their purview, companies cease to fulfill a communal need.

When this occurs, companies try to re-legitimize themselves by paying lip-service to well-meaning generalities, such as “wealth creation,” “job creation,” or “knowledge creation.” These mantras, which CEOs chant to prove their civic virtue, are often professed by the self-proclaimed “enlightened leadership” of the World Business Council on Sustainable Development (WBCSD). Their arguments remind me of the post-World War II “social contract” between scientists and society. This contract (which has been nicely explained by Jacques Mirenowicz) is founded on the following reasoning: now that the war is over, all the scientific energy that was mobilized to save democracy (symbolized by the Manhattan project) must be converted back to civilian purposes; this means advancing science through public funding; this funding will stimulate applied sciences, which will stimulate innovation, which will stimulate growth, which will ensure social cohesion and peace. This reasoning, it should be added, has yet to be proven.

I am tempted to describe the “Thirty Glorious Years”—the period of postwar growth covering roughly 1945 to 1975—as resulting from a similar pact between society and business.



The society relinquished its right to define economic priorities, allowing business to do so instead. Society's needs and the laws of the market being what they are, the thinking went, business would have no choice, if it wanted to survive and grow, to meet real needs. In return, business would guarantee prosperity, economic development, and full employment.

Yet for science as well as for business, the implicit post-war contract has lost its meaning. Consequently, science and business have lost their a great deal of their legitimacy. The more educated people are, the more likely it is that they will be skeptical about technological progress. Similarly, the better they are informed, the more likely they are to doubt the current economy's capacity to produce goods and services that satisfy genuine collective needs. It is evident that businesses are desperate to create new needs simply in order to keep the economic machine going, forcing it consume more and more non-renewable resources. In 2007-2008, the financial system went into a tailspin and the price of oil shot up. Awakening from a dream isn't easy.

In order to keep some legitimacy in the developed countries where they once were founded, companies can play two cards: job creation and the preservation of higher standards of living than developing countries. Both cards need a second look. Clearly, most companies are joining the service sector: services, particularly people-oriented services, are what create jobs. The path to new forms of economic activity is wide open. As I see it, they will blend features of the traditional company and the mutualist, territorially-based company: they will be able, like the former, to recruit intelligence and talent, while, like the latter, addressing a community's broader

needs. As for higher standards of living, are companies really well positioned to defend them? This desire is best symbolized by the Lisbon declaration. Europe, it declares, is destined to be the most competitive and prosperous continent, because it is on the cutting edge of innovation and the knowledge economy. As we have seen, this is why Daniel Cohen maintains that the United States will remain supreme despite the costs of empire: American growth, he argues, is “Schumpeterian,” in that it depends on a capacity for innovation. Yet this argument will most likely be valid for only another twenty or thirty years, but not more. In the first place, knowledge and know-how are goods that multiply when they are shared. Using them to create monopolistic income is deeply illegitimate. Secondly, large Asian countries, particularly China and India, are, in the long run, equally if not better equipped than Europe and the United States to develop knowledge-based economies. Moreover, they are driven by a spirited and legitimate desire for revenge. One way or another, they are winning back the position of prosperity they deserve. Whether by negotiation or force, they insist on their legitimate right to the planet’s natural resources. This is the message that China’s leaders sought to send to the world through their spectacular handling of the 2008 Olympics.

There is, consequently, no economic alternative to legitimate actors and processes—i.e., meaningful contexts, frameworks, and solidarity whose activity is clearly aimed at social goals, evaluated on the basis of social utility, and contributing in a measurable way to the population’s overall well-being. This is what institutional arrangements must seek to invent.

## *B. Oeconomic Power Means Fairness*

“It’s not fair!” What parent, grandparent, or teacher has not heard a small child utter these words? They are usually followed by an adult patiently explaining why things are the way they are. These might include fairly sophisticated economic explanations, perhaps relating to price formation or the nature of competition. Still, the child will often reply: “Fine. But it’s still not fair!” The child, needless to say, is often in the right. A society can function without equality, but it cannot function over the long run—and, more importantly, it cannot expect sacrifices of its members—unless social inequalities rest on criteria that are commonly accepted.

As they pertain to governance’s legitimacy, the terms “right” and “just” must be considered in a moral rather than a strictly juridical sense. “Just” does not simply mean “in keeping with the law.” One only has to think of how the most powerful states and companies hire the most expensive lawyers to take full measure of the difference between juridical and moral justice.

I remember a French construction company (whose name I will generously omit) that would start a grievance file on the very day it signed a contract. Warren Buffet, the American billionaire who recently handed over most of his fortune to the Bill and Melissa Gates Foundation, has observed: “More people have been killed by pens than guns.” Another, older anecdote is a useful remind of fairness’s importance to a system’s legitimacy. In the early nineties, there was an unused offshore drilling platform named the Brent Spar. The company that

owned it, Shell, had planned to sink it in the Atlantic in 1995. Greenpeace threatened a campaign, arguing that the platform still contained 5000 tons of oil and 1300 tons of chemical products, creating a serious pollution risk in the North Atlantic. This campaign (in which European consumers boycotted Shell products) proved so effective that the company retreated, cancelling the decision to sink the platform. Yet it turned out that the information disseminated by Greenpeace was false—as its executive director, Lord Melchett, admitted in a letter of apology written on Shell's behalf. The interesting thing about this story (which, incidentally, encouraged Shell to take sustainable development seriously) is what it says about the impact on public opinion (particularly in Great Britain) of information that is false yet nonetheless credible, at least at first glance. Several years later, an English friend offered an explanation that I found quite persuasive. English households, he explained, face pressure to conform to environmental regulations. They know what it will cost them if they are caught loading an old washing machine onto a boat to dump it in the sea. Yet because Shell is big and powerful, it gets away with dumping into the sea the equivalent of an enormous washing machine!

Fairness is about ends, not means. “Is each person or each people (regardless of their power) given equal consideration and an equal opportunity to be heard? Is each person treated similarly? Does each individual receive the same rights? Are he and she subject to the same constraints, demands, and penalties?” This is how, in my previous book, I defined the principle of fairness. But how does it translate into the field of oeconomy? Once again, I will distinguish

between the internal functioning of economic actors, on one hand, and to rules and contracts, on the other.

The most familiar meaning of the fairness principle is “to each according to his merits.” This notion is, of course, eminently subjective. Clearly, because different societies define merit and effort differently, their conceptions of what a fair wage is vary considerably. On the other hand, the idea that some wage disparities are acceptable seems universally accepted. It is for this reason that the debate in the early 2000s about executive salaries is so significant. At a macroeconomic level, the pay received by several hundred executives is, after all, rather insignificant: even if their salaries are exorbitant, so few individuals are concerned that the aggregate sum is negligible. Even so, the discrepancy could demoralize society as a whole. This is all the more true when, as was the case with Vivendi chairman Jean-Marie Messier, the reward principle only goes in one direction: i.e., you get an enormous bonus when the company does well, but when its shareholder value crashes disastrously, you still get a golden parachute. The losses are recouped by the little guy. Following on the heels of the Jean-Claude Haberer affair (relating to the former chairman of Crédit Lyonnais), the Messier affair lent credence to the belief that an economic, administrative, and political elite exists which follows its own laws and even its own honor code, rather than those followed by everyone else. In France, the president’s legal immunity and his right to grant selective amnesties reinforce the idea that the system is corrupt—the very idea upon which populism has historically thrived. Society needs standards. It

needs to believe in its institutions, and it needs that public and private morality be based on the same principles.

Jared Diamond goes one step further.<sup>143</sup> He claims that the societies which are prone to self-destruction or which are particularly vulnerable to foreign aggression are those, like the Incan Empire, in which political rivalry is so intense that they cannot unite even when faced with a life-threatening danger, and in which political and economic “elites” are shielded from the dangers that afflict common people. In his remarkable book, *Le Management de l’extrême* (The Management of the Extreme), Michel Berry, the director of the Paris Management School, discusses several crisis-ridden companies.<sup>144</sup> Having leaders who are “in the same boat” (both literally and figuratively) as everyone else is crucial, his examples suggest, to a boat’s ability to weather a storm.

We all have a profound need to belong to society, to institutions, and to the human adventure. “Give them a tower to build, and you will make brothers of them,” the African historian Joseph Ki-Zerbo liked to say. Yet it is important, when the fruits of common effort are distributed, not to feel betrayed.

I have already described the historical circumstances that led shareholders, first in the United States and then in the rest of the Western world, to reassert their power against the

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<sup>143</sup> Jared Diamond, “Et si nous disparaissions comme les Mayas?,” in *Courrier international*, 751, March 24-30, 2005.

<sup>144</sup> Michel Berry, *Management de l’extrême. Des patrons en pleine crise*, Autrement, 2006.

growing autonomy of corporate structures that would systematically reinvest profits in pursuit of relentless growth. The pendulum swung back to what might be called “shareholders’ values.” In *Le nouvel âge du capitalisme* (Capitalism’s New Era),<sup>145</sup> which deals with the Vivendi and the Enron affairs, Eli Cohen shows how Michael Jensen replaced John Kenneth Galbraith as modern capitalism’s economist of a choice. Galbraith celebrated the role of technical structures and maintained that replacement of capital by organized intelligence was crucial to economic development. According to Jensen, however, this replacement produced bad business strategy: “Certain executives’ desire to extend the scope of their companies’ activities reduced the deployed capital’s efficiency, as a company that branches out into several different activities cannot achieve optimal success in any one of them.” According to Cohen, this new theory of the firm emerged out of the serious crisis that American companies faced in the early eighties, when they were threatened by corporate raiders.<sup>146</sup>

Unfortunately, one of the consequences of the reassertion of shareholder power, in the triangular game played by employees, executives, and shareholders, was to lure executives into taking the shareholders’ side. This was the purpose of stock options. Corporate prestige now meant pay, not power. Consequently, to return to Diamond’s model, solidarity between employees and executives broke down. In the short term, this collapse may have facilitated the

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<sup>145</sup> Eli Cohen, *Le nouvel âge du capitalisme*, Fayard, 2005.

<sup>146</sup> “Corporate raiders” were financial entrepreneurs who tracked down companies that were either poorly managed, or which had failed to adapt to deregulation.

rapid restructuring of the American entrepreneurial system. But over the long run, its sociological drawbacks were severe. It destroyed trust in the corporate elite. Business leaders now seem to be living on another planet. The next time a serious crisis strikes, they most likely will pay dearly.<sup>147</sup>

For leaders, one of the most basic principles of fairness is a willingness to expect of oneself the same things one expects of others. “To each according to his merit” does not fully encompass the fairness principle. It also implies equality in treatment.

Let me mention two applications of this principle. The first, which has already been mentioned, concerns natural resources and water, a natural good and a life necessity. Oeconomy can deprive no one of basic goods, especially when they are not man-made. This is why the principle of fairness stipulates that whatever the technical and economic demands of water management, everyone is entitled to a minimum, non-negotiable share. The second application relates to climate. During international negotiations in the eighties, the fairness principle was ably defended by the Indian environmentalist Anil Agarwal. He observed that the reason why the climate was not changing faster, despite rich countries’ massive carbon dioxide emissions, was because “carbon wells” in the biosphere were absorbing much of the surplus. Did this imply that the carbon wells belonged to the earth’s inhabitants in proportion to the amount of pollution they

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<sup>147</sup> Note from December 2008: The crisis has now occurred. Society can now see that business leaders viewed themselves as subject to different laws and a different ethical code from everyone else. In France, the public coffers that the President had recently declared empty were suddenly full enough to rush to the financial system’s rescue. However sound the objective reasons of such actions might be, ordinary people, seeing that the corporate executives who caused the failure were not even contrite, can only conclude (like children): “Yes, but it’s not fair.”



emitted? Obviously not—that would completely violate the fairness principle. This principle should lead us, when we consider institutional arrangements in detail, to a formula that defines negotiable quotas which are premised on an equal distribution of the earth's limited resources between its inhabitants.

The question of equal treatment can also be applied to the rules of international negotiation in the economic realm. I have personally observed the international order's potentially demoralizing effects when wealthy countries take advantage of their asymmetrical relations with poor countries to apply a judicial double standards. It can be summed up as: "do what I say, but don't say what I do." The West, led by the United States and France, is liberal when it is out to conquer new markets, but protectionist when it wants to defend its farmers or leading national companies. It thus permanently damages trust in the prospect of an equitable international order. As La Fontaine once said, a court will see you as white or black depending on whether you are rich or poor. The most recent failure of the Doha cycle, in the summer of 2008, confirmed this attitude.<sup>148</sup> One might thus propose a more expansive fairness principle, based on moderating the use of force. Oeconomy is constantly creating relations between actors that differ dramatically in terms of power: small and larger companies, corporations and financial institutions, territories and corporations, unqualified and qualified labor, and so on. These relationships often boil down to one between immobility and mobility. The former have to play

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<sup>148</sup> The Doha round is a series of negotiations held sponsored by World Trade Organization. They seek to liberalize international trade. One of their goals is the development of the South.

the game, whereas the latter have a choice. The relentless and reckless deployment of power relations leads to profound inequities. The “rational” implementation of power relations may appear to benefit the most mobile, but only at the serious cost of undermining oeconomy’s legitimacy itself.

Only rules imposed by public authority can reestablish trust. Doing so requires a moral posture of self-moderation. Thus no matter how sophisticated the structures that one deploys may be, oeconomy, like democracy, ultimately rests on shared values. As it should!

### *C. Oeconomy’s Legitimacy Rests on Shared and Recognized Values and Principles*

There can be no oeconomy without trust or a shared ethos. A society rests on values. Governance cannot disregard these values—though this often occurs in the economic realm, when efficiency is placed above all other concerns. Nor can governance abide by ethical codes that the rest of society sees as alien.

It was by studying governance in Africa, Latin American, and in former colonies that I realized that successful governance must be rooted in a society’s culture.

This is particularly true for oeconomy. At the end of the day, oeconomy depends on relationships of trust. This has been paper money’s historical problem. What kind of alchemy convinced us that worthless bits of paper were as valuable as gold? One word: trust. The subprime crisis that struck the United States in 2007 and which, thanks to the generalized

securitization of dubious loans, subsequently spread across the world, offers an excellent example of the importance of trust. In this crisis, trust was twofold: the trust that ordinary citizens had in their banks, which were presumed to be competent and aware of their risk exposure; and the degree to which major banks trusted one another—a belief on which the entire system depends.<sup>149</sup> In this sense, the subprime crisis was not just another speculative bubble that burst, like the Internet bubble in 1999-2000. These busts can always be analyzed in the same way: an excessive interest in a particular good pushes up prices, as expectations about the profits to be made from reselling the good increase—until the moment when a reality check turns the very mechanism that had been generating profits into one that produces losses. Thanks to the subprime crisis—to which one must add, in France, the Société Générale affair (in which a single poorly supervised trader supposedly cost his bank five billion euros), ordinary citizens discovered that major banks are unable to control their own employees and have only the vaguest idea of the value of the securities in their possession, and thus of the risks to which they are exposed. More serious still, major banks ceased to trust one another, paralyzing the international credit system. Trust is so essential that in the real economy, much information is transmitted orally, whether it be financial decisions, relations between suppliers and sub-contractor, or matters discussed by a single work team. Written confirmation often comes later, “just to follow the rules,” “for the accounting department,” or “for the archives.” This is why both companies

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<sup>149</sup> See, for example, Robert Guttman, “A Primer on Finance-Led Capitalism and its Crisis,” *Revue de la regulation* 3/4, 2<sup>nd</sup> semester 2008.

and territories are often called “islands of trust”: that is, a system of relationships founded on mutual dependence that is resistant and permanent enough to discourage their members from trying to “play smart” and betray each other’s trust. Such confidence is not simply based on mutual interest; it depends on a feeling of shared community, culture, and values. Oeconomy, like governance, could never exist without ethics.

In *La Démocratie en Miettes*, I explained that a system in which interdependency is globalized (which the economy is twice over, because it undergoes some forms of interdependency passively, while accepting other forms voluntarily), there could be no transcendent ethical foundation, as the world’s different societies shared no common faith. Consequently, the ethical foundation that social life, and particularly economic life, requires must be constructed. I thus suggested that global society must be a contractual society—i.e., a society based on a contract.

By “contract,” I mean both the moral and social sense of the word, rather than its strictly juridical meaning. A contractual society is a community that is united both by shared values and mutual obligations.

This is an important distinction, as the following anecdote illustrates. At the beginning of the 1990s, a study examined misunderstandings between European and Chinese companies. The conclusion could be summed up in a single sentence: whereas for the Chinese, trust between

company leaders ensured that (juridical) contracts were respected, for the Europeans, respecting contracts fostered trust.

On what can a common ethical foundation be based? Intercultural and interreligious research carried out by the Alliance for a Responsible, Plural, and United World shows that the shared ethical foundation of global society—and indeed, of any contractual society—is responsibility.<sup>150</sup>

The very nature of responsibility, which is the counterpart of interdependence and freedom, has, as Hans Jonas demonstrated, changed as the scale of interdependence has changed. Material responsibility towards small communities has given way to far more extensive responsibility to the human community in its entirety.

The Charter of Human Responsibilities, which was drafted by the Alliance, identifies three forms of responsibility:

- I am responsible of the direct and indirect impact of my actions, even if this impact is not predictable and even if its effects only become apparent when many others behave similarly. For example, my responsibility for the greenhouse effect or the ozone hole is proportional to the emissions I release into the atmosphere, even though these emissions are only disastrous insofar

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<sup>150</sup> See the Charter for Human Responsibilities at : <http://www.carta-responsabilidades-humanas.net>. To learn more about how the Charter was written and adopted by the World Assembly of Citizens at Lille in December 2000, see voir [www.alliance21.org](http://www.alliance21.org).

as a very large number of people behave in the same way that I do. Responsibility for an action thus becomes dissociated from the intentionality of the actor and the immediacy of its impact.

- My responsibility is proportional to my knowledge and to my powers. In other words, each of us, whether weak or mighty, has some measure of responsibility—but it is a function of our actual or potential capacity to impact the world.

- I cannot plead impotence to justify my lack of responsibility unless I have done everything in my power to work with others to give myself the ability to effect change. In other words, power is not merely given; it is constructed. We all have a duty not to be impotent.

Naturally, these three forms of responsibility apply to oeconomy. It could even be said that thinking about responsibility has been one of the main driving forces for practical change over the past decade.

Consider consumer responsibility. What began as a few individuals' personal desire to bring their actions in line with their convictions (buying organic products, avoiding driving, boycotting companies that mistreat their employees) has become an undertaking that is genuinely political, in the original sense of the word—a willingness to act collectively to change economic and financial behavior. This is how, for instance, major consumer-driven media campaigns were led against Nestlé, Nike, and Shell, among others.

Consumer movements realized that in the new economy, major companies owed much of their value to their brand's reputation. Trust in brand-names was quasi- and even explicitly contractual: it significantly determines the value of the product and services they sell.

*D. Legitimate Power Is Exercised Efficiently by Competent and Trustworthy Leaders*

The legitimacy of our present economic leaders depends on two questions: are they competent? And are they trustworthy? I mean "trustworthy" in the literal sense: worthy of being trusted, worthy of being followed.

Versions of these questions have been asked since the earliest times. It becomes particularly important in the age of economic globalization, for in a system of globalized production and exchange, the lag between leadership decisions (particularly in large companies) and the ultimate impact of these decisions has increased considerably. Nothing illustrates this lag more than aggressive corporate expansion through mergers and acquisitions. Though this trend may be economically justified, to the public, as well as to the employees of the companies concerned, it looks like a giant Monopoly game, in which they are pawns that can be bought and sold, and used as currency.

There has always been a gap between the interests of shareholders, who are a company's owners, and those of employees. The internationalization of the economy as well as of shareholding has nonetheless created the impression that corporate executives are no longer on

the same planet as ordinary employees, and that their respective ways of thinking have become completely alien to one another.

Will this gap continue to exist? It is unlikely. Can it be overcome? Certainly. To do so, two paths need to be explored.

The first path involves bringing the activity of production and a product's final distribution to consumers into closer contact, making the production process more concrete. I will consider this hypothesis' scope and limits later in this book, so I will not linger on it for now.

The second path, assuming that the production system continues to be organized on an international scale, seeks new guarantees from international corporate executives in response to three questions:

- Who chooses them? What have they committed to achieve?
- What are their ways of thinking?
- To whom are they accountable?

First, who chooses them? As long as production- and distribution-oriented companies remain, legally speaking, an association of shareholders (i.e., co-owners of capital), it is difficult to imagine that it will not be they who choose their leadership. Even so, this selection could, in the future, be subject to several conditions. This trend would belong to a broader transformation in property rights: rather than being understood as absolute, in the Roman sense, property is



becoming increasingly “functional,” i.e., it is recognized insofar as a certain number of principles are respected or a certain number of goals are achieved. One could imagine the selection of a chief executive requiring a preliminary stage, in which the candidates would be required to present their core beliefs—the principles to which they are resolutely committed, whatsoever the consequences for the company might be—to their employees, suppliers, sub-contractors, and clients.

This would, in short, be a way of recognizing the fact that today the power wielded by major companies is genuinely political, and that its capacity to impact the common good is so great that the commitments of business leaders cannot be exclusively to their companies’ shareholders.

Second, what are the ways of thinking of business leaders and particularly of pension funds managers? Are they able to make commitments over the long run? Are they genuinely engaged in their companies’ project, or are they exclusively concerned with short-term gains? Are they exclusively and solely committed to their shareholders? Or are they also concerned with the wellbeing and prosperity of those (such as their suppliers, their sub-contractors, their employees, and consumers) who depend on their actions? Are they concerned with society’s prosperity overall? These questions are anything but secondary. Consider the business leaders’ declaration at the World Business Council on Sustainable Development. These leaders declare themselves to be tomorrow’s leaders; it’s useful to know what they are thinking and where they

intend to take us. By “tomorrow,” do they mean behavior that leads us to a long-term transition, upon which humanity’s fate depends? Or do they simply mean a lot of short-term sequences added up?

Research presented several years ago by the Paris School of Management explains why family businesses—that is, with a core of family capital—do better than others over the long term. The reason is obvious: for companies based on a family capital, lasting achievements (which are often closely identified with family tradition) trump short-term profits. Who wouldn’t put their trust in an individual or a group that ties its destiny to a collective undertaking, even if they occasionally make mistakes? Companies lose their legitimacy the more they resemble mining operations, which seek to make the maximum possible profit in the least possible time, even if it means leaving ruins behind them. A representative of the Protestant Federation of France once said: “I trust people who plant oak trees more than those who plant poplar trees, because the former know that they won’t be around to enjoy their efforts.” Is it possible for business leaders to be oak tree planters? Can legislation be pushed in this direction? This is a vast terrain that needs further exploration.

Concerning pension funds, for instance, the 2004 report of the United Nations Environmental Program on responsible investment, which draws on fourteen studies of supply chains by financial analysts, concludes that existing financial analyses do not take into account

the “unpaid environmental debt.”<sup>151</sup> The report recommended to modify legislation pertaining to the responsibility of financial managers, especially pension fund managers, whose excessively limited mandates (“act in the best interest of one’s employees”) promotes short-term profits.

Why not, for instance, defer a portion of business leaders’ pay, making it dependant on their companies’ prosperity fifteen or twenty years down the line? This would be a way of bringing their way of thinking more in line with family-based companies. Or, contrary to the current stock-option system, part of their pay could depend on overall global prosperity. I will return to these points in the chapter on currency, by showing how currency’s “reserve value” function might work in the future.

Third and last question: to whom must leaders answer? Law and political systems lag behind reality. The discourse of international institutions on political governance emphasizes accountability. But this applies only to the relationship between citizens and political leaders on a national scale. Yet national political leaders—the very embodiment of immobility—find themselves in positions of weakness compared to international capital—which is, on the other hand, extremely mobile. And because global governance is behind the curve, capital is accountable, yet again, to no one but its shareholders. The usual juridical and political framework, which treats companies as a homogenous category of economic actors, no longer

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<sup>151</sup> UNEP Finance Initiative, Innovative Financing Force Sustainability. See its website: [www.unepfi.net](http://www.unepfi.net).

reflects reality. A chasm lies between a multinational corporation and one of its local subcontractors.

In the first part of this book, I explained why very large corporations (say, the 800 largest, which represent more than two-thirds of stock market capital) are the modern world's pivotal actors. Consequently, they should be subject to international law. The direct and indirect impact of corporate behavior and the legal responsibility of shareholders and business leaders should fall within the jurisdiction of an international court. We already have class action suits, and they pose a real threat to shareholders and consumers. But these are cases tried in national courts, or, in the United States, in state courts. The classic example is the class action that American consumers brought against tobacco companies.

Trade disputes are now decided by the WTO. But even these cases only concern relations between states. WTO should see its jurisdiction extended, allowing it to consider disputes between major corporations and other relevant parties. Where does one draw the line separating that which continues to fall under national law and that which is subject to international law? The facts speak for themselves. One could adopt broader criteria—for instance, companies that make over 50% of their sales outside their home country's territory; narrower criteria—such as consolidated sales in excess of a particular sum, for example \$10 or even \$50 billion; or, measure companies in relation to national GDP—i.e., companies whose turnover exceeds the median of national GDP.

Creating such jurisdiction would have two consequences: a juridical effect, which would most likely be quite limited initially, as enquiries would presumably be long and complicated; and another, more immediate effect, that would perhaps act as a deterrent: the largest companies would be far more concerned with their reputation than with a fine. A threat to one's reputation is more serious and more lasting.

Furthermore, major companies must start keeping consolidated corporate balance sheets, incorporating not only their branches but also their sub-contractors. These balance sheets must demonstrate the ways in which they manage the four kinds of goods and services.

The UNDP report (mentioned above) emphasizes that the social and environmental impact of companies is at present difficult to determine accurately, given the diversity of national legislation. The establishment of common rules for the largest corporations at an international scale would be a partial solution to these problems. It could also be contagious, and lead nation-states to establish rules that are tailored to small companies. There is no question that, at the outset, the business community will kick and scream at the new regulations. But it will quickly realize that it stands to lose more if the system ceases to be considered legitimate. This is what George W. Bush—who is hardly associated with the alter-globalization movement—realized after the Enron affair; this is what led to the nearly unanimous adoption of the Sarbanes-Oxley Act by both houses of the US Congress in July 2002: it is better to accept the new constraints than to undermine trust in the system as a whole. The Sarbanes-Oxley provoked considerable

controversy in the United States. It made several important innovations.<sup>152</sup> Some are fairly conventional. They spring up each time a financial crisis occurs; they relate to auditors' conflicts of interest, investment banks, rating agencies, and insider trading. Others are less familiar, and are on the same page as my own arguments: they seek to increase the legal and even penal responsibility of business leaders, whether they be board members who "do not act in a full capacity or lack the expertise required to understand the company's complexity" (nicely put, it's about getting rewarded for making decisions while having no clue as to what their consequences might be) or chief executives who are now personally accountable for the veracity of their financial reports. The law makes cooking the books, destroying accounting records (as occurred with Enron), and white collar crime more generally punishable by jail.<sup>153</sup>

More generally, as Yann Queinnec and Marie-Caroline Caillet of the Sherpa Association argue, the Sarbanes-Oxley Act has become an "instrument for internationalizing market law."<sup>154</sup> Indeed, it applies to all companies that are publicly traded in the United States or that are subject, for whatever reason, to the rules of the Securities and Exchange Commission (SEC), the "US policeman" of the financial markets.<sup>155</sup> Sarbanes-Oxley is thus a kind of rough draft of

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<sup>152</sup> Wikipedia has a very learned entry on the Sarbanes-Oxley Act.

<sup>153</sup> Note from December 2008: It is a shame that Sarbanes-Oxley did not take its provisions on the legal responsibility of board members who fail to understand their companies' complexity to their logical conclusion. If they had, prisons might not have had enough room to lock up all the board members of financial companies that invested in subprimes or investment instruments that Madoff devised!

<sup>154</sup> Yann Queinnec and Marie-Caroline Caillet, "Quels outils juridiques pour une régulation efficace des activités des sociétés transnationales ? ," (What Juridical Tools Can Efficiently Regulate the Actions of Transnational Companies?), [www.asso-sherpa.org](http://www.asso-sherpa.org).

<sup>155</sup> Note from December 2008: It must still be proven that those in charge are not corrupt and have at their disposal adequate means to exercise control. The Madoff affair displayed, however, the SEC's tragic weakness. As for the

international corporate law, but a rough draft that reveals the existing chasm between the actual impact of major corporations on the market and the legal conditions in which they operate. The rules enacted by Sarbanes-Oxley are, in the first place, “international” only to the extent that most large companies are traded on the New York Stock Exchange. It is thus not a form of new international law defining the responsibilities of very large companies, negotiated on a global scale and implemented by various national jurisdictions, but a national law, adopted by the US Congress, which happens to have an international impact by virtue of the central role that the United States plays in the operation of world markets. This is true to such an extent that the law’s detractors complain that it encourages companies that can afford to leave the New York Stock Exchange to do so. Above all, the new law had only one primary objective: that of reassuring shareholders and restoring trust in the financial system. On this point, at least, the law has clearly failed. One of the Enron scandal’s most salient features was the fact that “several of the most important banks had agreed to make significant loans to the company, without understanding or in complete ignorance of the risks they were taking.” Compared to the subprimes crisis of 2007, when most of the world’s major banks bought securities that were based on bad loans “without understanding or in complete ignorance of the risks they were taking,” the Enron affair looks in retrospect like child’s play. To my knowledge, no bank executive has yet to face penal

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means of control, the United States has reduced them as it has focused its efforts on fighting terrorism. According to a paper given by Bill Black before the Group of Paris, held in New York in November 2008 (available at [www.i-r-e.org](http://www.i-r-e.org)), only two inspectors are available for every 500,000 instances of financial fraud committed.

consequences for this “indiscretion.” And, like good captains, most of them remain “courageously” at their ships’ helms.

But with the exception of the issue of responsibility to shareholders, Sarbanes-Oxley leaves the question of international law applied to large corporations completely unresolved. Basic principles of common sense—that an actor whose actions have an international impact should be subject to international jurisdiction—are completely foreign to our existing legal system.<sup>156</sup> Despite of their transnational character, major corporations, as private legal persons, remain subject to local law. The only legal entities subject to international law are states; in theory, it is they who must punish corporate behavior. But when one recalls the relative size of states compares to that of the largest corporations, and when one remembers that the “mobility” of these companies that puts them in a stronger position in relation to the relative “immobility” of the state, it becomes clear that this assumption about the role that the state can play is highly unrealistic. Then there is the fact that companies draw much of their power precisely from their networks of branches and sub-contractors, each of which is juridically independent from the parent company. This is known as the “*corporate veil*”—a smokescreen that allows the parent company to avoid responsibility for the behavior of its sub-contractors, despite the fact that this behavior is *de facto* determined by the policies and constraints imposed by the parent company.

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<sup>156</sup> I am drawing from the article made available by Sherpa, cited above, which is very well documented. See the publications available on the site at [www.asso-sherpa.org](http://www.asso-sherpa.org).



Sherpa is, in France, at the forefront of practical efforts to force law, or at least the French law, to become more creative, even as it relies on existing means, in dealing with French-based transnational companies when they act irresponsibly in other countries. Their legal interventions include: strengthening requirements concerning social and environmental reporting; broadening certain legal concepts (such as concealment, in the case of goods produced by illegal means, or complicity); treating branches as representatives of parent companies in order to make the legal responsibility of the latter evident; increasing the opportunities of NGOs to sue before a court of law; and strengthening the role of national contact points (NCP), which have jurisdiction when companies fail to respect the OECD's Guiding Principles. These proposals were submitted, in the fall of 2007, to France's environment summit (*"Grenelle de l'Environnement"*).<sup>157</sup> The question of the legitimacy of very large corporations, in relation to the way they put their responsibilities into practice, is currently one that is discussed in "alter-globalizationist" circles.

Addressing the environment summit on October 25 2007, president Sarkozy, a man who freely flaunts his friendship with big business, solemnly declared "it is not acceptable that parent companies are not held responsible for the environmental impact of their branches." Obviously, this statement takes the legitimacy of the existing system as its basis, rather than that of law strictly speaking. But this is precisely what makes me think that it is now possible to go much further in imagining institutional arrangements that will lead the economy's actors to act with

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<sup>157</sup> See [www.asso-sherpa.org](http://www.asso-sherpa.org).

more responsibility, in the three ways the word has been defined by the Charter for Human Responsibilities.

There is an interesting idea to explore in Sherpa's emphasis on contract law and competition. Many companies voluntarily adopt codes of conduct. They are typically part virtuous hot air, part clever advertising, and part genuine conviction. Catching those who violate their own codes of conduct red-handed, in the name of consumer protection and on the grounds that they have violated the contract between buyer and seller: this is an idea worth pursuing.

More generally, the question of the responsibility of economic actors brings us to the idea of the contract. Sherpa has promoted the concept of the "sustainable contract," by analogy with "sustainable development." A sustainable contract between public and private actors would be one that respects contractual standards that might eventually be adopted as international law and contractual obligations in which "economic, social, and environmental aspects overlap."<sup>158</sup> I will return to and expand upon this fruitful idea in the chapter on economy's institutional arrangements.

#### *E. Legitimacy Implies the Principle of "Least Possible Constraint"*

Collective life and the common good require that rules, which are also limits on freedom, be respected by all. These restrictions exist in all societies. We all understand why. In most

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<sup>158</sup> See [www.asso-sherpa.org](http://www.asso-sherpa.org).

societies, these rules are so important that that they have a sacred status by virtue of a reference to a transcendent (religion) or semi-transcendent (the “founding fathers” of a community) principle.

For governance to be legitimate, the limits placed on freedom and autonomy must be reduced to the strict minimum required for protecting the common good. This is what I call the principle of the “least possible constraint.” Our current economy, however, is far from satisfying this principle.

The first kinds of constraint are those that limit the freedom to engage in business. I have already mentioned the scandalous fact that there are so many idle hands in our societies while so many needs remain unsatisfied. When local exchange trading systems (LETS) began to develop, using local currencies, states had to confront the question of whether these systems were legal or whether they were simply tax shelters. Yet as long as full employment is not guaranteed, and as long as idle hands exist alongside unsatisfied needs, this question—which is perfectly natural from a strictly fiscal perspective—is scandalous. Instead, one should ask: how can fiscal approaches, at any given moment, connect idle hands to unsatisfied needs?

In France, moreover, corporations have for years fought to limit the activities of voluntary associations, which they view as engaging in illegal competition by providing social services. But how can one argue—whatever these associations’ shortcomings—that using volunteers to help a population’s most disadvantaged members should be forbidden or severely

restricted? Similarly, as we have seen, the recent European Commission directive on social services endorsed the principle that free trade regulations must acknowledge the social reality of voluntary labor (rather than the reverse).

Thus one can only admire the pragmatism that led the British, in 2005, to endow social companies with a new juridical status, dubbed the CIC (Community Interest Company). This status seeks to marry the flexibility of corporate structures with the pursuit of collective goals. In effect, Parliament indirectly adopted the principle of least possible constraint: if (as the legislation puts it) a “reasonable person” would conclude that the company is pursuing a collectively beneficial goal, then it can be declared in the “community interest”; an “asset lock” prevents it from being steered away from its goals; and limits restrict the ability of shareholders to profit from their investments. In particular, the new legislation avoids the trap into which, in the United Kingdom as in France, regulation governing the not-for-profit sector has fallen: because their executives cannot be paid, “social entrepreneurs” who created these businesses cannot guide them effectively, leading to many loopholes. Success seems likely: 1700 CIC have been created in two years.<sup>159</sup> The institutional arrangements of the future must necessarily unite many diverse factors and will need to enlist many different abilities to serve the public interest. It is through such pragmatic innovation that the goal will be achieved.

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<sup>159</sup> I would like to thank Hugues Sibille of the Crédit Coopératif for having introduced me to this interesting social and juridical innovation. An interesting presentation of the CIC can be found on the following British government site: <http://www.cicregulator.gov.uk/>.

Each time that legal constraints, whatever their justifications, appear morally unjustifiable, swindlers will become Robin Hoods: genuine popular heroes, defenders of “true” justice against official justice, which merely looks after the interests of the powerful.

In Europe, GMOs offer a particularly interesting example. There is a real schism between the population, which is often supported by local officials, and major corporations and the judicial system. On the one hand, the GMO “crop saboteurs” remind us, through their actions, that we have been cheated out of a public debate on the use of genetically modified organisms (despite their importance). On the other, corporations are eager to call upon the judicial system to do its job because they sense the fundamental weakness of their own position. The same problem has been posed at an international level by the issue of generic medicine. The debate has been so exemplary that, in this case, corporations were forced to concede. On the one hand, we had a judicial system committed to enforcing intellectual property rights. But on the other, there were millions of sick people who lack care because of the ban on producing generic brands of medicines that still have valid patents. This situation was untenable. When legality, however it justifies itself economically, puts itself on the side of private interests and condemns virtue to illegality, economy’s entire legitimacy is called into question.

The common denominator between genetically modified organisms and medicine is intellectual property—that is, the intrusion of a commercial logic into goods and services that multiply when they are divided. This is one of the reasons why the existing economy is seen as

illegitimate. Contrary to what one would expect, our market economy is very far from obeying the principle of the least possible constraints. I have already mentioned the example of farmers' seeds. One could also mention the kinds of knowledge tied to traditional pharmacopoeias in countries where biodiversity is very rich. The introduction of intellectual property does not merely, as in the case of AIDS, deprive a people of knowledge indispensable to its survival; it also robs it of its traditional use-rights. The parallel with nineteenth-century colonization, which seized collectively-held land on the grounds that it belonged to no one, is patent. We know what the results were.

By cracking down on the informal economy; by jeopardizing, in the name of fighting unregulated work, family and neighborhood solidarity; by expropriating entire communities of their traditional use-rights; and by restricting recourse to vernacular knowledge of body care (to the benefit of specialized institutions, as well as of reason and science), we have gradually rendered the entire economy illegitimate.

More anecdotally, recall how European directives forbade, in the name of hygiene, traditional cheese-making and free-range poultry. Hygiene could also be invoked to forbid schoolchildren from eating the food that they themselves had prepared. This requirement, made in good faith by technocrats who think one-dimensionally, has encountered so much resistance that it has been forced to retreat. But these efforts reinforce the impression of a growing gap between common sense and technical and economic ways of thinking.

It is essential that every community, whatever its size, be in a situation to determine its own rules. Without this, authorities will be inevitably discredited by the forces of free markets and the market unification. If things continue along these lines, even the most beautiful speeches and the best supported arguments will not save the economic globalization from disaster. Ireland's rejection, in June 2008, of the Lisbon Treaty, coming from one of the countries that most profited from joining the EU and right on the heels of French and Dutch "no's" in 2005, is perhaps a manifestation of this popular revolt against a generally discredited legitimacy.

### **Oeconomy must obey to general objectives of governance**

I have already referred to Deng Xiaoping's famous slogan, in the years immediately following China's market-friendly reforms: "A cat's color does not matter, as long as it can catch a mouse." Breaking with Mao Zedong's ideological dogmatism, he emphasized the priority of ends over means, of pragmatism over dogma.

Chinese society's goal, as its citizens see it, is to develop its productive capacities and to increase its population's standard of living. If capitalism can do this better than socialism, then three cheers for capitalism—even if it is dressed up as a "socialist market economy." Deng was right. Economy cannot harbor independent goals—producing for the sake of producing, consuming for the sake of consuming, accumulating for the sake of accumulating, innovating for

the sake of innovating, believing for the sake of believing, or winning for the sake of winning—goals without risking its sanity.

What holds true for communism also applies to our current economy. Can it catch mice? And what kind of mice? And what goals is it trying to achieve? They are stated in oeconomy's very definition: to "ensure humanity a maximum degree of well-being through the optimal use of technical capacities and human creativity, while being unwaveringly concerned with preserving and enriching the biosphere and with conserving the interests, rights, and capacity to act of future generations, under conditions of responsibility and equity to which all can adhere." This definition entails nothing less than the subordination of production and exchange to governance's primary goals: internal harmony; protection from foreign threats; peace; and an ongoing equilibrium between society and its natural environment, upon which our long-term survival depends. These goals are interdependent. Peace and protection from foreign threats cannot be separated from equilibrium between society and its environment.

#### *A. Oeconomy Must Contribute to Fulfillment and Well-Being*

Studies have identified three decisive factors contributing to well-being: a predisposition to happiness; life circumstances; and living according to one's beliefs. According to these studies, "life circumstances," including income, account for only 10% of happiness, whereas living according to one's beliefs account for 40%.



In an economy that seeks individual well-being, everyone must be guaranteed the chance to produce and to exchange. They must, in other words, be guaranteed: dignity and basic economic and social rights; the chance to create; social capital and a sense of self-worth; and a life consistent with one's beliefs.

Let us consider each of these four aspects.

Dignity is a concept that is suggestive, but difficult to define. In economically underdeveloped countries, poverty and misery refer, for those at the same income levels, to two distinct realities. The first is compatible with dignity, while the second is not. In affluent societies, dignity is usually associated with political, economic, and social rights. Dignity implies freedom of speech, both at the workplace and elsewhere. It includes economic, social, and cultural rights; the right to decent lodging; the absence of degrading relations of subordination; good quality food; and the possibility of transmitting one's own values to one's children. But a rights-based approach is insufficient. A long list of rights isolates us from others, rather than integrating us into society. Social integration requires a balance between rights and responsibilities. Furthermore, the cultural dimensions of dignity seem to be grossly underestimated. Can one have a dignified life when medical and educational institutions deny us an ability to know ourselves, our environment, and our family? I doubt it. Can one have a

dignified life while being nothing more than a machine that consumes industrial goods and public services, an anonymous cog in a production system whose ultimate purpose is completely mystifying? I doubt this, too. The experience of the welfare state suggests that an affluent society, with the means to redistribute wealth, can satisfy everyone's essential material needs. Dignity, however, cannot be bought.

The second dimension of well-being is the chance to create. In any given society, there are enormous reservoirs of intelligence and creativity. But what portion of them is put to use? In France, craftsmanship has been largely devalued. It has many drawbacks: the work is hard, the pay is uncertain, regulations and taxes are tiresome. But these problems—and any lingering romanticism—aside, consider what we learn simply from watching artisans renovate an old building. We see the sheer practical ingenuity that can be brought to bear in finding solutions to very different problems. Similarly, in bureaucracies, consider the difference in attitude between an employee who is simply asked to follow a routine, and one who is allowed to problem-solve on his own.

In my previous book, I showed that the governance revolution meant that the principle governing how bureaucrats solved problems was no longer conformity but relevance. They seek, in other words, the most appropriate solutions, in a way that allows for both greater harmony and greater diversity. Relevance is also, within the framework of bureaucratic work, a way of harnessing an employee's creativity. This means, at a minimum, that the work itself must be

meaningful enough to engage one's creativity. Employees must have, in short, a clear sense of their social utility.

One way to achieve this goal, in oeconomy as well as administration, is to create pockets of freedom, within which products and services can be adapted to the infinite diversity of local situations. This requires "learning" organizations, in which each work group must draw upon its own experience, as well as that of others, in order to progress. This brings us back to the previous point: are a company's goals meaningful from their employees' perspective, and, if so, is this meaning deserving of a share of their creativity? Nothing is less certain. Companies realize this: consequently, they actively encourage motivational retreats, which use methods that border on psychological manipulation. Is it reasonable, over the long run, to expect that the full scope of our intelligence can be mobilized to achieve goals that we do not all share? Of course not.

The third dimension of well-being is having social capital, as well as a sense of one's utility. Many retirees and unemployed people, whatever their material means, feel isolated. Some sociologists speak of "disaffiliation." Personal well-being is directly tied to the feeling of having a place in society and to a resulting network of relationships. Oeconomy is not the only way to build social capital, as the richness of associative life and the vitality of local communities demonstrates. Yet professional relations remain, even so, a crucial factor in building social capital.

Exchange, including commercial exchange, is an undeniable social bond. However, it should contribute to making the world intelligible and to finding one's place within it. The need for stronger local economies is not the result of some misguided desire for autarky, but of this search for coherence and meaning—for a personalized relationship between oneself and the world.

We need the esteem of others as much as we need to eat. The core insight of Claire and Marc Heber-Suffrin, the founders of a knowledge-exchange network (*mouvement des réseaux d'échanges réciproques de savoirs*, MRERS), is that most people achieve greater satisfaction from providing knowledge than from receiving it. Indeed, one of the contradictions of the welfare state is that it relegates more and more people to the status of passive beneficiaries of the state's generosity. Oeconomy's institutional arrangements must respond to the demand for the respect of our peers.

Finally, the fourth dimension of well-being is life led according to one's beliefs. Harmony with oneself is the epitome of happiness. It cannot be reduced to material interests. Is this merely philosophical question, and thus irrelevant to oeconomy? Clearly not. Several years ago, several Northern European companies adopted a program called *Natural Steps*, launched by the Swedish doctor Karl-Henrik Robert. It sought to calculate the degree to which company behavior contributes to sustainable development. I asked its advocates about the impact of this program on the companies. The answer at first seems surprising, though it is understandable if

one considers what has been said previously: many employees (remember that we are talking about Northern Europeans, who are very attentive to environmental issues) are frustrated by the tension between their deepest convictions and their companies' behavior. High turn-over is a symptom of this unhappiness. But when companies commit themselves to more rigorous efforts to preserve the biosphere, employees feel better about themselves. Consequently, they are much happier spending long hours at the company. The similarity between this conclusion and the one relating to Goldman Sachs (see above) is worth noting.

#### *B. Oeconomy Must Contribute to a Peaceful World Community*

Peace—which means social cohesion internally and nonviolent relations externally—is always one of governance's goals. Yet as I have already pointed out, the fact that our domestic space (i.e., our *oikos*) is henceforth the planet as a whole represents a fundamental anthropological shift. We no longer have external enemies. *We* are our own enemy. In particular, our enemy is greed. As Gandhi once said, we have “enough for everybody's need, but not enough for everybody's greed.”

I now turn to the ways in which the globalization of production and trade might contribute to establishing and managing a genuinely peaceful international community. If I speak of the need of establishing such a community, it is obviously because one does not yet exist. Thus we must begin by considering oeconomy from the standpoint of its foundational capacities:

that is, of its capacity to promote interdependence and solidarity and to turn Platonic ideals into ordinary reality, based on cooperation, mutual responsibility, and fairness. The recognition that a common interest and a “community of destiny” actually exist is a necessary precondition for establishing global governance that can meet the challenges we face. Today’s economy is Janus-faced: one side is turned towards peace, the other to war. We are turned towards peace because interdependence promotes peace, and because trade requires it; we are turned towards war because competition fuels conflict. On the one hand, the economy, by multiplying exchange, weaves together the strands of a genuinely global community; on the other, by creating insatiable needs and social distinctions founded on material wealth, it puts the world community on a path to destruction, as the world’s major regions compete with increasing violence to control scarce energy sources and raw materials and as the excessive consumption of these resources jeopardizes the delicate balance upon which the biosphere—and thus our survival—depend. What is at stake is the transition to an oeconomy of peace. However much one may criticize our current economy, it has played an auspicious part in shrinking the planet to a global village. A “global society” is being born on *Mère-Patrie* (“homeland Earth”), to use Edgar Morin’s apt expression. Today, this global society lacks the rules, rights, and regulations that are worthy of this shift; but it remains a truly global society all the same.

Today’s teenagers increasingly share many traits: those who belong to the middle class play the same online games, listen to the same music, are glued to similar TV sets to watch the

same World Cup, seek out the same clothes brands, and so on. One can, of course, say that the glass is half empty, and bemoan the standardization of a world enslaved to advertizing and manipulated by television. But let us not forget that the glass *is* half full: recognizing the existence of common behavior is a way of deconstructing the very idea of “the enemy.”

The way that multinational corporations operate, at least at the highest level of leadership, recalls the European Commission. Their teams are often multinational and multicultural. A learning process of historical significance occurs. This learning process has its limitations and its downsides: it is the experience of an “elite” that is increasingly cut off from ordinary people; the leadership’s shared culture often consists of little more than American-style economics. But it is important not to mischaracterize or dehumanize these people; we must remember that all genocides, including the most recent, the Rwandan genocide, begin with a symbolic dehumanization of the “other.” The current push for free trade, we should recall, was launched after the Second World War to build peace. The world had just lived through the suicidal experience of each country turning inward, hiding behind its borders. European construction was a response to this inward turn. Its primary goal was—and remains—peace. The creation of a single market within the European Union was never an end in itself, but a response to the failure in 1953 to establish political union. For the same reasons that, at a global scale, only one solution is available: responsible, plural, united, and controlled globalization. Needless to say, a

community cannot be created simply because people listen to the same music and drink Coke. For oeconomy to become genuinely peaceful, two conditions are essential.

The first, mentioned earlier, is the creation of a shared ethical foundation, along the lines of the Charter of Human Responsibilities. This requires going well beyond existing forms of corporate social responsibility (CSR) and putting responsibility at the very center of production and exchange. I have already given several examples relating to the responsibility of business leaders. International law must go much further, putting responsibility—in the three definitions that the Charter of Human Responsibilities gives it—on the same level as rules governing competition.

The second condition is that for each of the four categories and goods and services, global governance regimes must be established that are consistent with the nature of these goods and services. This is the definition that I will now emphasize, by revisiting what I said about each of these categories in the preceding chapter, while clarifying their global dimension.

In the charts found in the annex, which illustrate the previous chapter, I have summarized the governance regimes that apply to the four categories of goods and services. These regimes take into account both the category and various other characteristics, such as whether the goods tend to be diffuse or concentrated, and whether the roles of managers and beneficiaries tend to overlap or diverge. Here, I will limit myself to recapitulating the implications for the global community. The simple fact of drawing up a list and initiating a dialogue (with a time schedule)



to examine ways to regulate and preserve each category would help establish an international community.

Let us begin with first category goods, those that are destroyed when they are shared. These are goods that are shared by the whole world. However, they are also very diverse: while the global community must be concerned with each of them, the solutions to be prescribed vary considerably.

Second category goods are those that are divided when shared, but which are not limitless. They include the vast majority of natural resources. They, too, lie at the heart of global community building. A community means: “the ‘other’ is like me.” This is why the name by which many peoples refer to themselves (and which is often turned into a proper noun) is in fact simply their word for “human being.” The “other,” who is like me, has the same inalienable rights to those blessings from the earth that human beings did not create. Whether one considers these blessings to be a divine gift or an outcome of the history of the universe, the conclusion is the same. Henceforth, each individual and each people must have an equivalent right to these resources. This is the basis of the idea of an inalienable ecological debt. Oeconomy thus implies not only that no one should take from the planet anything that cannot be regenerated (a question to which I will return), but also that use rights should be equal. The market mechanism to sell greenhouse gas emission rights, as provided for by the Kyoto Protocol, represents a first if very timid effort to link oeconomy to the management of second-category goods. The idea of

“emission rights” translates into concrete terms the principle that a company’s environmental impact should be calculated as part of its assets. This is a first step towards more responsible investment practices. Recognizing the legal right of each individual to a share of nature’s riches gives the idea of an ecological debt a grounding in philosophy as well as accounting. Rich countries’ debt towards poor countries, which refers to past extractions, should lead to massive technological transfers.

Let us turn to third category goods, which are divisible, but unlimited. They lie at the very heart of the commercial economy. They create the connections that help build a world community. Production and exchange create social bonds. But for these bonds to be tangible, they must be made visible. This means that each major supply chain must be visualized. Traceability within each branch and personalized exchange require the creation of a worldwide information system, which should become a shared good in itself.

The global market has nothing in common with the “perfect market” postulated by economic theory. It is a social construct, built by very large corporations that established massive chains of added value. Rather than deploring this fact and seeking, in the name of theory, to reintroduce some semblance of competition into the system, wouldn’t it be better to acknowledge the situation for what it is, and build stable relationships that make traceability a rule and through which the distribution of added value can be negotiated? I will defend this point in chapter 6.

Today, consumer preferences no longer determine supply (i.e., what we call a “consumer pull”); rather, technology shapes consumer preferences (i.e., a “technology push”). Examples of this trend include the internet, cell phones, and genetically modified foods. Sony’s famous slogan—“You dream it, Sony does it”—is cute but untrue. In reality, Sony “did it”—and then convinced you that you were dreaming it! Consequently, we now face the question, as a world community, as to how we might express our collective preferences more consciously, in a way that is less conditioned by profit-oriented habits of thought. The expression of collective preferences, occurring at different geographic levels, in no way implies a return to rigid planning. The example of the way the European Union establishes a seven-year research framework program suggests a possible option. The seventh framework program, which began in 2009, while it does not go in the direction I have been recommending, is nevertheless based on a process that could be applied on a global scale to the articulation of collective preferences.

If it has the support of the major states, the world community does have the resources to act. To innovate, industrialists need predictability, which itself depends on knowing collective preferences. The example of industrialists developing energy efficient cars, hearing systems, and home appliances is ample proof. Could we not imagine a system in which, for example, every seven years, the world community would come together, grouped into different “colleges”—legislators, businessmen, investors, consumers, scientists—which would deliberate on collective preferences for the future?

Finally, goods that multiply when they are shared—so-called fourth category goods—are, by their very nature, community-building goods, as they develop through trade, cooperation, and sharing. I have already provided many examples, so I will just mention a few. First of all, seeds. Their richness comes from mutualization. The establishment of a global exchange system of farmers' seeds—a vast forum of supply and demand constituted as a global network for exchanging knowledge—would offer a wonderful symbol of a community in the process of being born. The same would be true of territorial experience-sharing networks. Where do cities promote social cohesion as well as energy conservation? How does one implement social auditing? How does one manage water resources at a given geographical level? How can the internet be used to stimulate democracy? Examples abound of the ways in which the unhampered circulation of experience would bring human beings closer together, create affinities between groups, and foster communal bonds (comparable, perhaps, to the kinds created by the distribution of free software).

A final example is the symbolic significance of digitizing artistic and literary works. A lot has been said about Microsoft's and Google's projects in these areas. Clearly, they are unacceptable if they lead to the privatization and commercialization of goods that multiply when they are shared. This would render the economy illegitimate; it could never last for long. On the other hand, who is not moved by the prospect of a new, digital, twenty-first century library of Alexandria, where one could find most of what the human mind has created since the dawn of

time? *The New York Times*' slogan is: "All the news that's fit to print." Why not dream of a library that would include "*everything* that's fit" to be preserved, and to be made available to all. Building a global community requires collective projects. "Give them a tower to build, and you will make brothers of them." The towers to be built are countless. Because of our former vision of the relationship between man and nature, characterized by the will to power and domination, the only projects that we could think of as collective were feats of science and technology: the conquest of space and the decoding of the human genome, to mention two. But I believe, like Thierry Gaudin, that tomorrow's project will be to re-garden the earth,<sup>160</sup> bringing to a symbolic close the cycle described by the Book of Genesis: man, banished from the Garden of Eden, is called up unto to transform the earth into a garden that all human beings will share. To achieve this goal, as many scientific and technological resources as are needed will be mobilized. This is Carl Linnaeus' vision of *oeconomy* applied to the new *oikos*—our planet.

### **What Would Become of an Oeconomy That Most People Deem Illegitimate?**

We will conclude where we began—with Lu Jia's adage: if its principles are false and if its leaders are unworthy, a regime will surely collapse.

All systems are based on trust. Sacrifices made for the collective good, even when enforced by a tax authority, nonetheless depend mostly on consent. There are countless scenarios

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<sup>160</sup> See Thierry Gaudin, Fondation 2100.

by which our system could collapse. It could be the result of international political turmoil resulting from ecological catastrophes, or, at a national level, of widespread defiance of political and economic elites, leading to a swift rise in nationalism and populism. The system's collapse would leave "every man for himself." Each reprisal would lead to a new reprisal. We would soon be heading for war.

One could also imagine a process of generalized civil disobedience. For instance, if corporations and advocates of the existing economy stubbornly insisted on commercializing fourth category goods and services, there might be a wildfire effect, as has already occurred with the pirating of software and the illegal copying of movies and music.

When Robin Hood has become the people's hero and the incarnation of justice, no police force anywhere can restore order. One day, a group of developing countries might decide to systematically nationalize all foreign investments as a repayment of the ecological debt. They would be acting like a creditor enforcing his rights against a debtor who refuses to pay—a right to seize physical property. Civil disobedience; environmental crisis; geostrategic tension; protectionist isolationism: one thing we are not lacking, alas, is catastrophe scenarios.

## **Chapter 4: Oeconomy, Democracy, and Citizenship**

### **1. From Formal to Substantive Democracy**

It is common, particularly among the British and Americans, to maintain that democracy goes hand-in-hand with the free market. Political liberty, it would seem, is inseparable from entrepreneurship. The inalienable right to property is fundamental, requiring no clear limits. Political liberalism (i.e., freedom of speech and of lifestyle) has an economic counterpart in the restrictions placed on the state's ability to dictate what citizens consume and companies produce. According to this political philosophy, labor contracts belong to civil (i.e., private) law, as they consists in free decisions to associate, in which the state's intervention is limited to mitigating egregiously unequal power relations.

During the French Revolution, the Le Chapelier law abolished the old guild system, whose protectionist rules were seen as an obstacle to innovation. On the other side of the Atlantic, in the late nineteenth century, the United States adopted antitrust laws, lest the country stray too far from its free market utopia, in which no single producer is allowed to occupy a dominant position.

But the concrete way in which political and economic power came to be exercised in the course of the twentieth century was a radical departure from these starting points. In the political realm, power relations and interdependence between societies revealed the state's sovereignty to be more apparent than real. In the economic domain, the global economy has increasingly been shaped by large corporations, which, while generally not occupying monopolistic positions, have played decisive roles in fostering technological change and in organizing the production and distribution system. It is for this reason that they have assumed the status as pivotal actors.

As classical democracy increasingly becomes a thing of the past, our conception of citizenship has grown impoverished accordingly. Citizenship has two meanings. One stems from ancient Rome: it refers to a status conferred at birth entailing particular rights. The other is a legacy of ancient Greece. In this case, citizenship is the right, and even the obligation, to participate actively in the affairs of the *polis*, from military service to justice and administration. In our system, with its imperial tendencies, the Roman conception has gradually prevailed. Today, citizenship is largely equated with nationality (or, at the very least, the right to long-term residency), and consists primarily of the right to protection and other benefits provided by the state, rather than of responsibilities owed by the individual to the community.

The changes explain why (to refer to the title of my previous book) “democracy is in pieces” and citizenship has lost much of its original meaning. Because ordinary citizens no longer feel that they can influence society’s course, which is increasingly determined at an international level, they resign themselves to being passive beneficiaries of rights and public services. Though vibrant forms of civic participation are present in European society, they tend to occur outside the confines of traditional politics. Civic life is particularly alive in voluntary associations: far more than political parties, they help keep our social fabric whole.

To overcome the crisis of our democracy, we need to return to a substantive rather than a merely formal conception of democracy and citizenship. Substantive democracy recognizes everyone’s right to participate in shaping a collective destiny. Such a democracy necessarily operates at multiple levels, from local territories to the planet as whole, for it is at these various levels that society is managed and our collective destiny forged.



Citizenship is democracy's corollary. It is the array of attitudes, rights, and duties that arise from participating in a collective destiny. Citizenship, too, must be present at levels ranging from the local to the global.

In the two books I devoted to governance, one on reforming the state<sup>161</sup> and other on democracy itself,<sup>162</sup> I explored the roots of democracy's crisis while identifying substantive democracy's basic components. Let me mention these briefly so that I can then apply them to oeconomy. First, democracy's spatial and temporal dimensions have changed dramatically. Spatially, democracy must, if it is to exist, operate on a planetary scale, as our interdependencies are themselves planetary. Science and the economy both illustrate this basic fact. Since science and the economy will determine our future, substantive democracy can exist only if it helps to guide their progress, which itself occurs on a global scale. Moreover, one can no longer think in terms of a single spatial level. Coordinating different levels of governance is essential, as there are no important social problems that can be addressed only on one level. Rather, problem-solving requires shared responsibility and cooperation between political institutions at multiple levels.

The same considerations apply to democracy's temporal dimension. Politics must be able to express short-term considerations, long-term consideration, and everything in between. A good example is energy policy, which involves considerations that span the spectrum between short and long term.

Consequently, the duration of most electoral terms of office, however long they might be, is out of sync with the society's temporality, best characterized as a tense relationship between the immediate and the long-term. A good example is a production and exchange system: it

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<sup>161</sup> André Talmant and Pierre Calame, *L'État au coeur*, Desclée de Brouwer, 1997.

<sup>162</sup> Pierre Calame, *La démocratie en miettes*, *op. cit.*

consists of both short-term rules and long-term evolutions. Neither lines up with political temporality.

The second factor contributing to democratic crisis is modern society's growing complexity. As I argued in the book I wrote with on reforming the French state, daily experience with administrative work would make our society more intelligible to its citizens. At present, however, most of the information we receive is determined solely by the logic of production. In France, for instance, bureaucracies generate enormous amounts of information, but operational concerns so segment and diversify this data that it never brings society to a "threshold of intelligibility." Moreover, in modern society, and particularly in the economic realm, many complex processes are determined by factors that are closely intertwined with one another. Consequently, it is a mistake to believe that clear causal relationships between them can be identified. This was the point I was trying to make when discussing the sterile debate between neoliberals and alter-globalizationists. Other examples include the debate between Rodrik and Dollar on the connection between "opening" a country to globalization and economic growth<sup>163</sup> and the Latin American debate over the positive and negative effects of import substitution programs.

Any system of indicators reflects, consciously or not, a worldview, which it conveys at a subliminal level to extraordinary effect. Today, per capita GDP, the rate of economic growth, and even the unemployment rate obscure rather than clarify how we understand our society. But because statistics are based on such indicators, they continue to shape our representation of our economy and society, however much we object to them. This is why creating information systems and quantifiable indicators is particularly important for democracy and modern

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<sup>163</sup> Dani Rodrik, "Trading in illusions", in *Foreign Policy*, March-April, 2001 ([www.foreignpolicy.com](http://www.foreignpolicy.com)).

governance.<sup>164</sup> The use of other definitions of wealth<sup>165</sup> and the regular publication of data about the use productivity of natural resources<sup>166</sup>—to mention two classic examples—can help change our vision of oeconomy over time.

Democratic debate and deliberation are indispensable to clarifying the ultimate stakes of these problems, even if they do not necessarily yield certainty or consensus. Modern bureaucracies in complex societies cannot merely treat their citizens as anonymous, identical cogs. Public action implies a capacity to deliberate with—and thus to listen to—all social actors. Political will is needed more than ever before, but public officials cannot limit themselves simply to handing down rules and regulations. The Wuppertal Institute's Stefan Bringezu, when discussing the sustainable use of natural resources, notes that a regulatory solution would require hundreds of norms the efficacy of which would ultimately be uncertain,<sup>167</sup> leading him to maintain that the more all-encompassing approach to resource efficiency, relying on cooperation between the public and private sectors, offers a far better chance of success. But one does not foster dialogue and define a vision the same way that one elaborates other kinds of public policy. The virtue of discussion is that it helps to clarify an issue's underlying stakes. It is more important than face-offs between political parties. Organizing public debate is thus politics' primary task. An exception that proves the rule is Europe. Because there is no genuinely European forum in which debate can occur, the stakes of Europe-building are unclear to most of its citizens. The organization of citizens' panels and conferences across Europe represents,

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<sup>164</sup> See the proposals by the Alliance for a Responsible, Plural, and United World: Pierre Calame, *Repenser la gestion de la société, 10 principes pour la gouvernance du local au global*, Éd. Charles Léopold Mayer, 2003.

<sup>165</sup> See Patrick Viveret, *Reconsidérer la richesse*, Éd. de l'Aube, 2003.

<sup>166</sup> The Wuppertal Institut, "Increase of Resource Productivity as a Core Strategy for Sustainable Development."

<sup>167</sup> Stefan Bringezu, "Materialising Policies Force Sustainable Use and Economy-Wide Management of Resources", 2006, [www.wupperinst.org](http://www.wupperinst.org).

however, a response to this challenge. These panels and conferences are an effort to make society intelligible to its members and to clarify the terms of the debate.<sup>168</sup>

Society's increasing complexity also profoundly alters decision-making processes. In politics, we often speak of "deciders," of "those who make decisions." This way of thinking about political actions emphasizes the moment of choice, when one opts for one of two political alternatives, typically the "left" and the "right." But this conception is gradually being replaced by a different one, in which the task of politics is to organize dialogues through which conflicting parties with different interests work to reach optimal solutions. I have called this "process democracy" or "governance cycles,"<sup>169</sup> in order to emphasize the decision-making processes temporal dimension. Politics, moreover, has no monopoly over the organization of dialogue. In certain circumstances, it might, without losing its nobility, restrict its role to one of a stenographer or a record-keeper, "notarizing" agreements between parties yet without actually participating in their deliberations. A good example of this approach in the economic realm is labeling of the kind practiced in organic farming, sustainable forestry, or socially responsible investment. These labels sometimes have a much greater impact than government regulations. Yet they are the outcome of private initiatives. Michel Crozier has popularized the idea of a "modest state."<sup>170</sup> For similar reasons, one might speak of "modest politics."

This conception of political action is in fact very noble indeed. States remain regulators *par excellence*, as we saw in our discussion of strategies for change. But if rules are to be followed and considered legitimate, they must be seen as consensual, which means, more often than not, that actors were involved in their elaboration.

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<sup>168</sup> On these points, see Pierre Calame, *La démocratie en miettes*, particularly the chapters on building public opinion and on organizing public debates, op. cit., p. 310ff.

<sup>169</sup> Calame, *La démocratie en miettes*, op. cit., p. 302ff.

<sup>170</sup> Michel Crozier, *État modeste, État moderne : stratégie pour un autre changement*, Seuil, 1991.

A third task for politics is to assist in conceptualizing institutional arrangements, notably through the invention of new juridical frameworks. We have considered the example of CICs (Community Interest Companies), which Great Britain recently created. The Wuppertal Institute, in the note cited above, considers the “constitution of society”—meaning a coherent arrangement of its various components—as the determinant factor in the efficient use of natural resources. At present, political decision-making’s top priority must be the future of the oeconomy’s institutional arrangements.

## **2. The Preconditions for a Renewed Political Debate on Oeconomy**

Facilitating public debates that help society understand itself, organizing dialogue that generates multi-actor strategies, and conceptualizing institutional arrangements: these are some of the roles that politics could play in oeconomy. But is politics currently fulfilling these roles? What issues are current political debates about the economy addressing? Do they provide production and exchange systems with an enduring direction? Do they promote a sustainable oeconomy and society? Do they place oeconomy in the service of governance’s general goals? My sense is that they do not. Our current situation is highly paradoxical. On the one hand, political life is completely dominated by economy concerns. Think of the famous sign from Clinton’s 1992 presidential campaign: “It’s the economy, stupid!” The implication is that economic prosperity depends entirely on the effort of political leaders. On the other hand, the only economic issues that political leaders deal with are superficial and immediate ones. Political power is subordinated to the logic of economics, not the reverse. This makes us feel powerless to alter to challenge it or to think differently. This is the problem Keynes had in mind when he famously remarked: “Practical men, who believe themselves to be quite exempt from any

intellectual influence, are usually the slaves of some defunct economist.”<sup>171</sup> How can we explain this paradox?

First, political debates on economic issues are locked up in concepts and frameworks inherited from the past. Only an examination of the deep historical origins of our present situation will allow us to grasp the circumstances in which the great “bifurcations” occurred.<sup>172</sup> The transformation of historically contingent theories into “natural law,” which in turn become self-fulfilling prophecies, fossilize the terms of political debate.<sup>173</sup> Thus for many years, rivalry between the communist and the capitalist blocs made the question of whether the means of production should be privately or publicly owned the fundamental political-economic debate. In France, which has always been a bit of an outlier in these debates, these questions remained at the forefront of political discourse at least until the left’s victory in 1981, and possibly as late as 1995. But the real question is what, if anything, the nature of capital ownership has to do with globalization. I still remember my astonishment in 1985 when I discovered, upon becoming secretary-general of Usinor, a publically-owned steel company, that after all the controversy provoked by the left’s nationalization policies four years earlier, no one had yet to figure out what nationalization’s practical implications were for managing human resources! The state had its hands on the levers of power, while having virtually no idea about what to do in an economy that was increasingly opening itself to the world. The right’s reversal of these policies several years later was consequently met with relative indifference. Our understanding the economy is still closely tied to the era when the notion of a “national economy” was still coherent. Though we are hardly seventeenth-century mercantilists, we still conceive of the economy and our

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<sup>171</sup> John Maynard Keynes, *The General Theory of Employment, Interest and Money*, London: Macmillan, 1936 [reprinted 2007].

<sup>172</sup> See part 1, chapter 1.

<sup>173</sup> See part 1, chapter 3.

national wealth as a competitive struggle between different countries' leading corporations. This was seen recently during the controversy over Mittal's acquisition of Arcelor.

Because they are beholden to past concepts, political debates over the economy also tend to adopt a short-term outlook. We tend to scold the international financial system for its short-term concerns, but what about our political leaders, who are not only constantly worrying about elections, but who have become ever-more obsessed with public opinion polls? There is no question that certain economic sectors must be managed with the immediate future in mind. Such management techniques no doubt made it possible, in the post-World War Two era, to mitigate the consequences of economic downturns, at least in developed countries.<sup>174</sup> Of course, this art was not practiced with the same level of commitment in poorer countries. The IMF, for instance, was unable to give adequate advance warning that Asian financial systems were veering off course, as they turned short-term loans into very illiquid long-term investments, particularly real estate.<sup>175</sup> This meant that the Asian financial crisis was very painful for these countries' most vulnerable populations. Similarly, the ease with which loans were made to poor countries in the seventies—loans that were indexed on the value of the dollar, a convenient way of recycling petro-dollars—resulted in a foreign debt crisis that wrecked havoc (and continues to do so) on those countries. Finally, at present our brilliant regulators have effectively closed their eyes before the growing risk that the United States' trade and budget deficits pose to our economy. An implosion could lead the dollar to collapse. At the very least, the Americans managed to constrain the crisis when the subprime crisis struck. These various crises suggest a greater capacity to react in the short term than to find lasting solutions over the long term. Yet whatever one thinks of macroeconomic steering, it at least amounts to a political choice; it is not

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<sup>174</sup> Source : Bureau of Economic Analysis, US Commerce Department, [www.bea.gov/national/nipaweb/SelectTable.asp](http://www.bea.gov/national/nipaweb/SelectTable.asp)

<sup>175</sup> Bernard Lietaer, *Money and Sustainability: The Missing Link*, Citerra Press, 2006.

comparable, for instance, to creating a production and exchange system based on sustainability and general well-being. Rather, it consists of a technical skill, the kind needed to steer a complex system. Americans, followed by Europeans (notably Germany), perfected this skill by making their central banks independent institutions. These innovations enraged the French, who saw them as a failure of political will and a triumph of a purely economic outlook. In fact, such changes might be a means of freeing politics from the techniques of microeconomic regulation and of bringing it back to the essential question: what kind of oeconomy do we want for the future? But do politicians really want to debate these fundamental questions? Are they even capable of them?

I believe in democracy's future. Not in the existing, circumstantial forms of national representative democracies, but in true democracy: in the ability of the men and women of our time to debate and determine their shared destiny. I believe in history's indeterminacy, and in the ability of citizens to shape its course collectively. But this requires bolstering their ability to discuss a twenty-first century oeconomy. Major political choices, in the oeconomic realm as much as in others, are to governance's primary goals and to the modalities that are implemented to achieve them. To initiate this debate, I propose ten questions:

What kind of production and exchange systems (spanning the local to the global level) do we want, and how can we make it provide us the maximum amount of well-being that our limited resources allow?

What priority should society assign to the different kinds of production and exchange: the domestic oeconomy, the associative or solidarity economy, and the economy based on salaried work?



How should we undertake the long-term transition to an oeconomy that is once again based on the compatibility of humanity and the biosphere?

How can the production and exchange system contribute to establishing a global community of citizens and peace?

What kind of equity should exist between different world regions?

How are we to create a symbolic representation of the emerging “world system,” and what social indicators allows us to measure its progress?

What oeconomic regulations should be emphasized at various levels, particularly at the global level?

How can the different tools at governments’ disposal—currency, taxation, public services, spending and public investment, public sector-private sector cooperation, norms, regulations, statutes—be rethought and used to serve these goals?

How can we express collective preferences for particular realms of production or exchange at multiple levels?

How can a multiple-level public debate be organized to define new perspectives and to bring them up to date?

In this chapter, I will only address a few of these questions, going back and forth between general principles and more focused approaches, given that it is impossible to speak of production and exchange systems in the abstract, without referring to the goods and services affected.

### **3. Conceiving and Directing a Strategy for Change: The Great Transition to Sustainability**

In part 1 of this book, I suggested that strategy for change requires three elements: actors, levels, and stages. I also noted the Wuppertal Institute's remark about the implementation of production, exchange, and consumption systems that use natural resources more efficiently: technical solutions exist, but the necessary sociopolitical conditions have yet to be established.

This is the task of politics: to harmonize the work of different actors; to conceptualize change at multiple levels; and to organize the various stages. Let me recall the different stages of any systemic transformation: having a clear awareness of the existing crisis, which makes one dare to act; formulating a vision of the goal to be achieved, without which a crisis results only in retrenchment; finding partners in change, and ensuring that when they have the courage to relinquish their vested interests, they also stand to benefit; and taking the first steps to prove that change can occur by moving forward.

While they have no monopoly over these tasks, political leaders are well placed to guide society through these stages. In companies, Michael Berry reminds us, the storm is what makes the sailor. Crisis situations call forth strong and visionary leadership.<sup>176</sup> Oeconomy seeks at a global level the maximum degree of well-being with the minimum amount of resources. Our current system falls short of this goal. Some, like Serge Latouche, have spoken of “ungrowth” to describe our existing system's basic incompatibility with this goal.<sup>177</sup> This term is provocative, but vague. It is provocative because it implies that our society's balance, which presumes indefinite growth and the ever-increasing extraction of natural resources, is unsustainable. Latouche rejects the term “sustainable development” as an oxymoron, one that is particularly pernicious because it suggests, as does the idea of the “social and environmental responsibility of corporations,” that the kind of development we have had until now can continue, as long as a few

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<sup>176</sup> Michel Berry, *Le management de l'extrême*, op. cit.

<sup>177</sup> Serge Latouche *et al.*, *Antiproduktivisme, altermondialisme, décroissance*, Parangon, 2006.

precautions are taken, a few problems are corrected, and we all become more socially and environmentally aware. Yet this is not true. It's not even close. There have undeniably been efforts made over the past twenty years to improve energy efficiency and resources use; yet global economic growth today surpasses humanity's environmental footprint. And still growth continues, relentlessly—despite the fact that, as early as the nineties, it had exceeded the biosphere's ability to reproduce itself.

For example, Europe's apparently more efficient use of energy and materials is in fact just the result of a substitution effect: Europeans use less energy and materials at home to fuel their constantly growing economy, yet their imports consume, at earlier production stages, more energy and materials.<sup>178</sup>

Beginning with the beginning of globalization's second wave around 1980, however, hidden energy and material flows incorporated into imports began to increase rapidly. This is what the Wuppertal Institute suggestively calls the “ecological rucksack.”

Awareness of our crisis means subjecting this data to public debate and letting it be known that, by the late twenty-first century, all world societies will have a legitimate right to their share of the planet's raw materials and energy resources, and that this means that our society must alter the existing ration between our degree of well-being and the amount of materials and energy we consume. The term “ungrowth” is suggestive in this respect: it implies that our goal should not be to increase the relative efficiency of our energy and material consumption, but to reduce our consumption of these resources in absolute terms. The European Union's “climate and energy package,” adopted in 2008, took an important step in the right direction, while remaining somewhat non-committal on the issue of the ecological rucksack.

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<sup>178</sup> Stefan Bringezu, op. cit., [www.wupperinst.org](http://www.wupperinst.org)

Yet “ungrowth” is vague in the way that it links the idea of growth to the consumption of non-renewable resources. It places human creativity and natural resources on a same plane. Yet as we have argued, these two factors, which contribute both to production and to well-being, are incommensurable. I would thus rather speak of “ungrowth” relating to material consumption, but of growth in the realm of human creativity and work.

Shared awareness of the seriousness of the current crisis means, in politics, a refusal to surrender to or foster illusions—a refusal, that is, to believe that a dash of environmental and social awareness, an ounce of humanism, a pound of technological progress, and plenty of short-sightedness will be enough to avoid a wholesale reconsideration of the entire system.<sup>179</sup>

### *A Shared Vision of the Future*

Once we have shared awareness of the crisis, the goal of political leaders and civic debate must be to collectively determine how we confront the crisis and what direction we must take. Once again, we do not have to start at square one. Since the 2000s, Germany and Japan, followed by the United Kingdom and France, have undertaken “factor four” simulations, i.e. simulations based on the hypothesis that by 2040 energy and material consumption can be reduced to one fourth their current level. France’s economic analysis council, which former Prime Minister Jean-Pierre Raffarin charged to consider the matter, submitted a report in 2006. Though grounded in classical economics, it suggests that a solution is possible, providing that politicians are willing to push it over the long term.

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<sup>179</sup> Note from December 2008: It will be interesting to see to what extent global leaders use the current economic and financial crisis as an opportunity to take stock of the dead-end to which the existing development model leads. Despite the slogan “Green New Deal,” which links the crisis to an altered model, Western and Chinese leaders, as well as the IMF, tend to see the crisis as a kind of oxygen shortage, one that requires stimulating the economy as quickly as possible.

This is a good place to start. But we must go further, organizing local, national, continental, and global debates on the meaning of well-being, on the goals society should set, on current forms of production and consumption, and on fairer relations between the world's regions. This is the crucial prerequisite for making the efforts undertaken by the "lozenge for change" converge. There is also progress occurring on the doctrinal front. But unless these steps can be generalized and regulated, they will be condemned to a Cassandra-like role, announcing the impending catastrophe while being ignored until it arrives. In his book *Stratégie pour un futur souhaitable* ("Strategy for a Desirable Future"), Philippe Lukacs, a management professor at the École Centrale de Paris, defines what a vision is by consider the examples of four epoch-changing innovations: the Grameen Bank, Max Havelaar, Paganía, and the Logan.<sup>180</sup> He demonstrates that epoch-changing visions are very different than the numerical goals favored by CEOs and politicians. Successful visions are simple, ambitious, and motivating. Their imprecision is the counterpart of their ambition. Their very indeterminacy will allow everyone, along the way,<sup>181</sup> to invent solutions together. I fully share this conviction, and this is precisely my aim in trying to define oeconomy's specifications. I cannot find the answers on my own. This is precisely what makes it exhilarating. At best, I can identify a few promising leads.

The experience of the Alliance for a Responsible, Plural, and United World has demonstrated, albeit at a prototypical level, the interest in a collective international effort to define a vision democratically. One outcome of this effort, the World Citizens Assembly, produced an Agenda for the Twenty-First Century<sup>182</sup> and the Charter of Human

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<sup>180</sup> Philippe Lukacs, *Stratégie pour un futur souhaitable*, Dunod, 2008.

<sup>181</sup> "*Chemin faisant*," or "along the way," is the name of the newsletter put out by Jean-Louis Lemoigne's organization, *Intelligence de la complexité* ("Understanding Complexity"). See [www.mcxapc.org](http://www.mcxapc.org).

<sup>182</sup> <http://www.alliance21.org/lille/en/resultats/agenda.html>.

Responsibilities.<sup>183</sup> Such a process could be implemented at multiple levels, as a way of rethinking collectively and democratically our economy's basis and of forging genuine agendas for the twenty-first century, whereas the contradictory agendas resulting from the 1992 Earth Summit (let's save the planet, but keep our economic thinking) were only icing on the cake. Only a collective approach will allow us to overcome fear.

For the main problem that we face is that of fear. This is particularly true of France. It is easy for economists to say that globalization produces winners and losers; but it is much harder to accept when you feel you're one of the losers. I have suggested a typology consisting of three groups: those who are "mobile and qualified," who are comfortable with a globalized Europe because they possess the cultural and social capital needed to benefit from its exhilarating opportunities; those who are "immobile and poorly qualified," who bear the brunt of competition from the new industrial economies in Eastern Europe and Asia; and those who are "dependent and protected:" because they are tied to local territories and depend on social redistribution policies, they do not experience the full force of the new competition on a daily basis,<sup>184</sup> but are aware that, if redistributive policies were to disintegrate, they would be the first to suffer.

In France, a coalition of the latter two groups constitutes a majority. This is the majority that voiced itself in 2005 by rejecting the European constitutional treaty. Similarly, when gas prices rise sharply, as they did in 2007-2008, the most vulnerable populations, who live on the distant outskirts of cities, where they find cheap lodging, and are entirely dependent on their cars, suddenly see their livelihood threatened and begin to fear for the future. In 2008, for instance, transport became the most expensive item in French household budgets. The rise in gas prices also exacerbated the subprime crisis, making borrowers who live far from cities (where property

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<sup>183</sup> [http://www.alliance21.org/lille/en/resultats/charte\\_resp.html](http://www.alliance21.org/lille/en/resultats/charte_resp.html)

<sup>184</sup> Laurent Davezies, *La république et ses territoires, la circulation invisible des richesses*, La République des idées, Seuil, 2008.

is cheap) even more insolvent.<sup>185</sup> In this regard, China is once again seen as scarecrow: yet while its energy intensity (the ratio between its energy consumption and per capita GDP) is no higher than that of the United States and only slightly above the OECD average, China's consumption of primary energy being, in 2006, around 1.2 per capita tons of equivalent petroleum (TEP), whereas in the United States it is round 7.8.<sup>186</sup>

Collective debate about the economy's future must involve all of these groups in a dialogue that makes it possible for each individual to be heard and for possible alternatives to be explored. Companies have learned to foster cooperation for complex projects.<sup>187</sup> One can take cues from these learning processes, for instance through panels of European citizens, making it possible to proceed, as with the issue of rural space,<sup>188</sup> in two stages: that of regional territories and that of Europe itself.<sup>189</sup>

I am firmly convinced that a combination of these methods can result in a strong and coherent vision. In my experience, people are prepared to commit themselves if they think a solution is possible. If, through collective work, a vision is agreed upon, I am certain that many of the hypotheses put forth in this essay that might seem far-fetched will soon be seen as self-evident. As proof, allow me to cite that second biannual China-Europa Forum,<sup>190</sup> held in October 2007: the need to reorient existing development models and to completely recast current approaches to governance revealed themselves to be major concerns of both European and Chinese society. In light of these circumstances, democracy's primary task must be to adopt a

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<sup>185</sup> Oral presentation of the Paris group, New York, November 15, 2008.

<sup>186</sup> Bernard Laponche, «Prospective et enjeux énergétiques mondiaux», AFD, document de travail n° 59, janvier 2008, [www.afd.fr](http://www.afd.fr).

<sup>187</sup> See Gilles Le Cardinal, Jean-François Guyonnet, Bruno Pouzoullic, *La dynamique de la confiance. Construire la coopération dans les projets complexes*, Dunod, 1997. See, too, "La méthode Pat Miroir," developed by the technology university at Compiègne : [www.utc.fr/pat-miroir](http://www.utc.fr/pat-miroir).

<sup>188</sup> The FPH co-organized a panel of European citizens on rural space. See Pierre-Yves Guihéneuf, *Chroniques d'une conférence de citoyens*, Éd. Charles Léopold Mayer, 2008.

<sup>189</sup> See [www.citizenspanel.eu](http://www.citizenspanel.eu).

<sup>190</sup> See [www.china-europa-forum.net](http://www.china-europa-forum.net).

long-term perspective, to create confidence, and to provide guarantees that these long-term goals will be pursued stubbornly over a series of concrete and measures stages. This represents, needless to say, a radical departure from the fragmentation arising from the national character of these debates and from the short-term perspectives that follow from narrowly electoral concerns. There is no escaping the fact that a few countries and political parties are needed to take the lead.

Europe, from this perspective, has a twofold historical advantage: it has the experience needed to foster dialogue between member states and it is well-positioned to conceptualize debate at multiple levels. Its economic model is relatively energy and material efficient—more efficient, in any case, than the American model. Germany, the United Kingdom, and France have created a number of “factor four” scenarios. Northern European countries are, for their part, are particularly conscious of the need to preserve the biosphere and are culturally well-suited to lead public democratic debates on these matters.

A European initiative should emphasize dialogue with India and China, the two continent-countries that have immense human but limited natural resources. Henceforth, it is the speed of China’s development that represents that greatest challenge to the existing distribution of the consumption of natural resources across the continents and thus to the lifestyle of countries that are already economically developed. China is so acutely aware of its weakness from this standpoint, as well as of the impossibility of adopting the American model, that in 2004 Prime Minister Wen Jiabao issued a directive on the so-called “circular economy,” inspired by research in industrial ecology.<sup>191</sup> A “harmonious society”—to use the Chinese term—consists of five harmonious relationships: between town and country; between the coast and the hinterland; between economy and society; between society and the biosphere; and between China and the rest of the world. Beautiful words, is it not? Europe should take China at its word, and devote

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<sup>191</sup> See part 1, chapter 4, paragraph 4.



itself to achieving these harmonious relationships, rather than defending its privileges by clinging to the illusions of its “Lisbon Strategy.”

India will follow the same path. It may show the way by drawing on its neo-Gandhian tradition and its consciousness of the disparity between complete human development and material consumption. When it does so, I think it is plausible to imagine Japan, the European Union, China, and India initiating a public debate on how this transition might occur.<sup>192</sup>

### *Partners for Change*

Today’s children are tomorrow’s actors. Given the time needed for this transition will to occur and the radical change in thinking and regulation that it implies, those who will actually direct the new system and will be most directly involved in its implementation are still in school. A particularly significant initiative in this respect is one taken between 2004 and 2006 by the education and environment ministries in Brazil. It involved four million young people between the ages of eleven and fifteen. In the spring of 2006 it produced, a charter of Brazilian children entitled “We will take care of Brazil” (*Vamos Cuidar no Brasil*<sup>193</sup>). This initiative suggests the extent to which children, when given quality information and an opportunity to talk, are acutely sensitive to the unsustainable character of our current production system and lifestyle. It also illustrates the fact that the elaboration of a collective vision of the way to achieve this transition gives birth to processes that are infinitely deeper and more varied than the kinds associated with

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<sup>192</sup> Note from December 2008: The election of Barack Obama as the US president radically changes the situation. His first initiatives suggest a will to return to multilateralism and to vigorously confront the non-sustainability of the American development model. His congressional majority will be disparate, but the American moral crisis is so great that a window of opportunity now exists for a daring initiative in which the US would participate with Europe, South Asia, and East Asia.

<sup>193</sup> On this initiative, see [www.carta-responsabilidades-humanas.net](http://www.carta-responsabilidades-humanas.net).

partisan, electoral politics. In 2008, Brazil proposed taking this approach to a global level, by inviting all states to participate in a world youth conference in Brazil in 2010.

Ideally, primary and secondary school could be used to inspire young people to reflect on the nature and modalities of production and exchange. Are any of the questions that we have been dealing with—oeconomy's goals, the nature of goods and services, the legitimacy of power, and the practice of democracy—beyond their comprehension?

The search for partners goes beyond children. “Meaning seekers” can be found in all milieus. We must rely on all of those—executives, CEOs, elected officials, trade union officials, political activists, etc.—who are more sensitive than most to the need to initiate the systematic change required to lay the foundation of a new oeconomy, which could never be successfully imposed “from above.” Only a coalition of forerunners will make possible the invention of new modalities.

Over the course of these pages, I have put forth a few simple ideas: the incommensurable character of work and the consumption of natural resources; various types of capital; the forms of governance that are applicable to the four kinds of goods and services; and so on. None of this is terribly complicated; most is just common sense. It is necessary that citizens claim these ideas for themselves and debate them. At a local level, one can debate what constitutes “just” water or energy governance, and, on that basis, reflect with young people what form of governance is applicable to second category goods. Among citizens, debates as to what constitutes “just” remuneration for intellectual creativity will lead to discussions of the appropriate kind of governance for fourth category goods, from which one can deduce what should replace existing intellectual property law.

#### **4. Organizing Democratic Debate at a Global Level**

The best way to organize a global debate is to start with several production and consumption chains. This seems to presuppose, one might object, that the problem at hand has already been solved: after all traceability, the necessary precondition for analyzing the usage of different categories of goods and services across an entire chain and for understanding the distribution of added value among the actors involved, does not yet exist. Nevertheless, for a few chains, educated guesses are possible.

Oeconomy can only be understood in concrete terms when one considers our lifestyle in its various aspects. Health, territorial organization, urban life, food, and housing are five issues that an international debate could address. Organizing debates around these matters would be a way to allow all citizens to participate. Too often, the very terms in which a debate is cast excludes everyone who does not consider himself or herself as an economic expert. These issues also have an enormous pedagogical potential, in that they encourage us to think in terms of relations and substitutions. Lifestyle, living conditions, food, and environment are, as we have seen, far more decisive for health than the medical system itself. Territorial organization has a decisive impact on energy consumption. Food raises questions about the relationship between agriculture, the agribusiness chain, lifestyle, well-being, and so on. As I have already explained, the most efficient way to organize the debate would be to expand the responsibilities of the WTO. This proposal risks provoking those for whom the WTO is the vanguard of militant neoliberalism. Yet precisely for this reason, it could benefit from reflection on organizing sustainable global industry chains. The trade barriers that the WTO opposes are not, as I see it, oeconomy's best allies. In any event, debates about the different categories of goods and the

“natural” governance forms with which they are associated is one that must occur through the WTO.

We should remember, too, that the UN Charter (chapters IX and X) emphasizes the need to strengthen international economic cooperation. In 1947, the International Conference on Trade and Employment in Havana first created the International Trade Organization. This effort failed: the US Senate refused to ratify the Havana Charter. No doubt the Cold War was not the right climate for creating an institution that was up to the task of regulating production and trade. For several decades, this regulatory function was confined to the GATT (the General Agreement on Tariffs and Trade), a treat that was initially signed by only 23 countries, but which, over the course of eight negotiating cycles, eventually expanded to include over 120 signatories.

The founding, in Marrakech in January 1995, of the World Trade Organization confirmed the need to go beyond a treaty by creating an international regulatory organization. At present, it is the framework for negotiations aimed at reducing obstacles to free trade.<sup>194</sup> But in my view, the current crisis of intellectual paradigms and development models will lead it to extend its responsibilities to those of regulating production and exchange systems, thus resurrecting the stillborn idea of an ITO. Should we be surprised? The course of history is slow and chaotic, but nonetheless real. The European Defense Community was premature in 1953, but eventually a Franco-German brigade was born, and the EU has progressively established a standing for itself in international relations. Keynes’ idea of an international exchange currency that was distinct from national currencies is once again relevant. The need to broaden the responsibilities and change the course of the WTO will one day seem self-evident.

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<sup>194</sup> See the articles on GATT and the WTO on Wikipedia.

In 1999, in the highly symbolic setting of the Davos Forum, UN Secretary General Kofi Annan proposed the creation of a Global Compact to enlist major corporations in the task of global management. This idea has met with some success.<sup>195</sup> I have shown, with regard to oeconomy's legitimacy, that the current international system, in which major corporations, the pivotal actors of the global oeconomy, only intervene in international negotiations under cover of particular states, thus minimizing their own responsibility, is no longer viable. The creation of a space for genuine democratic debate at a global level within the framework of the WTO, in which large international corporations would be explicitly represented, would acknowledge their current role, and hence their responsibilities. It would also, perhaps, stimulate the invention of institutional arrangements that are specific to production and exchange chains (a point to which I shall soon return). But the WTO cannot be on the only space for debate. Given the future importance of territories (the subject of my next chapter) and the reorganization of the world into a series of networks, I think that a global urban network could be another space that is well-suited to such debate. The creation, in 2004, of a global association of cities, UCLG (United Cities and Local Governments),<sup>196</sup> has brought this pivotal actor of the future out of the woodworks. Let us consider for a moment the significance of concerted reflection with the world's major cities on their future role as agents of globalization. This reflection would be firmly based on considerations of material, monetary, and energy flows. It would clearly depart from a hierarchical vision of production and exchange, emphasizing instead a network-based approach. Its approach would be both collective and democratic. I am firmly convinced that it would yield fresh and bold perspectives.

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<sup>195</sup> See <http://www.unglobalcompact.org>.

<sup>196</sup> See [www.cities-localgovernments.org](http://www.cities-localgovernments.org).

## **Chapter 5. Territories: The Pivotal Actors of the Twenty-First Century**

### **1. Territories: Oeconomy's Building Block**

Human societies are spatially organized and arranged into levels. These levels are created by social and political structures as well as by technology. They played an important role, for instance, in the ability of the Roman and Chinese empires to expand over vast amounts of territory, despite the limitations in the means of transportation and communication available to them.

At present, our existing means of transportation, along with computer technology and the Internet, reduce distances to such an extent that at times we feel ubiquitous, as if the whole world could be accessed from our computer screens. Yet the fact remains that society necessarily occupies a spatial location. While work has been partially dematerialized, human beings, families, housing, and the setting in which we live our daily lives remain very material indeed.

The spaces in which human societies are situated are also articulated with one another. This articulation may be continuous and enveloping (my neighborhood is a part of my town, which is a part of my region, which is a part of my country, which is a part of Europe, which is a part of the world). Alternatively, it may be discontinuous and juxtaposed, as in the case of diasporas: a village in China, Algeria, or Mali may be intimately connected to a town, a neighborhood, or an immigrant dormitory in the Paris region.

Throughout history, the social space in which one lives has been defined by one's social standing. Previously, social hierarchies stretched from peasants or serfs to top bureaucrats (in Rome or China) who maintained regular contact with distant capitals, or to lofty intellectuals with informants spread throughout the empire.

Things have changed little. On the one hand, we have retirees and uneducated young people whose daily life may be limited to a single neighborhood; on the other hand, we have executives and business professionals who always have a Brussels subway map and their frequent flyers' card in their coat pockets. Yet if the Internet, like radio and television before it, expands information's horizons, and if Google offers access to a range of encyclopedic knowledge that was barely imaginable as little as ten years ago, our lives are still lived, most of the time, in a fairly restricted and limited space. And when we receive information from outside, it can still be difficult to distinguish fact from fiction.

It is not, moreover, only retirees and the uneducated youth who remain territorially based. It has often been observed that many American congressmen do not have passports, having never felt the urge to cross a border. As for international tourist travel, which accounts for much of airline companies' business, it continues to follow well-travelled routes, despite the fact that it has been democratized: one flies from one's home city to Tunisia's beaches, the Aztec ruins, or the Forbidden City, and then back again. The reason why it is so difficult to create a world community is that most of our material and spiritual life continues to be rooted in a few narrowly circumscribed territories. We travel through other territories the way one used to go through East Germany when it lay behind the Iron Curtain: by travelling along a single, narrow corridor that linked West Germany to Berlin.

Like society, politics, too, is organized spatially and arranged into different levels. The articulation of these levels, ranging from the local to the global, is, I have argued, one of the five basic principles of governance. The art of reconciling unity and diversity (one of governance's essential tasks) depends on the principle of active subsidiarity. Its basic philosophy is that no

more restrictions should be placed on local communities than are needed to promote the common good.

In my previous book, I developed at length the apparently paradoxical idea that in a globalized system, in which interdependencies of all kinds exist on a planetary level, territories are destined to be governance's basic building blocks. By "territory," I mean the space in which we live most of daily lives (professional, familial, or social). Economists and geographers sometimes call these spaces "living" or "employment basins." This is the level at which major educational and health facilities operate. It is the main catchment area for commercial infrastructure. The political boundaries that emerged with earlier ways of inhabiting a territory have ceased to correspond to the new reality. Particularly in France, where over half of the EU's towns and cities are located, the municipality, the heir to the parish, now covers only a limited share of the new social space. In most countries, political systems are attempting to adjust to the changing ways in which we experience territories by amalgamating municipalities or by creating new political entities that join together old ones, particularly in major cities. To this end, for example, France has invented such political structures as "municipal communities," "urban communities," and "urban districts."

Human society is increasingly urban. Urbanization, which first began in England during the first Industrial Revolution, is now underway in China, India, and Africa. During the sixties, there were those who predicted the "end of the city," since the need for proximity—to power centers, markets, production sites, etc.—that is the historical origin of cities seemed in decline as a result of the automobile, decreasing transportation costs, and telecommunications. History has clearly proven them wrong, even if today's metropolitan regions, spread across hundreds of kilometers and crisscrossed by freeways, are only distantly related to their ancestors. Over the



past forty years, cities have exercised a magnetic pull on our social, physical, and economic space.<sup>197</sup> Our globalized economy is shaped far more by urban and regional dynamics than by nations.<sup>198</sup> While national living standards are gradually converging, the difference between dynamic and sluggish urban regions continues, or, at best, is diminishing slowly, despite the best efforts of voluntarist redistributive policies.<sup>199</sup>

Why is it that economic and social development commonly occurs at the territorial level? The answer lies in the nature of the modern economy, which mobilizes different kinds of capital, particularly human and intangible capital, in a knowledge-based system. Major cities create level and system effects, by offering, for instance, a diversified market of skilled jobs and a wide array of services for companies, institutions of higher learning, and research centers. Far more than is often realized, the real economy rests on trust, which can only be created over time. It depends on personal interaction. This is why both companies and territories tend to become “islands of trust,” that is, privileged spaces of interaction and solidarity.

Why is it that our modern economy rests on two axes—a vertical axis, or globalized production chains, and a horizontal axis (i.e., territories), which together form the woof and the warp of our economic fabric? A particularly important reason is that standardized information accommodates distance, making it possible to spread production processes across the globe and to set up production units in countries with cheap labor costs, whereas more informal and less codified exchange usually requires proximity.<sup>200</sup>

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<sup>197</sup> Pierre Calame, “Des mégapoles viables, vivables et gouvernables ?,” *La Jaune et la Rouge, Revue d’étude de l’École Polytechnique*, May 2005.

<sup>198</sup> Pierre Calame, “L’économie urbaine au XXI<sup>e</sup> siècle : pour une gouvernance urbaine stratégique,” *Annales des Mines, Réalités industrielles*, May 2008.

<sup>199</sup> Source: Eurostat, “Le revenu des ménages privés dans les régions de l’Union européenne en 2004,” February 2008.

<sup>200</sup> Loïc Bouvard, Pierre Calame, *Le dialogue des entreprises et du territoire*, op. cit.

Why is it, finally, that territories play a critical and ever-increasing role in governance—a trend that I have called “territory’s revenge”? Let’s put things in historical perspective. From the sixteenth to the beginning of the twentieth centuries, “territories” went through a complex process that transformed them into “spaces.” The French Revolution both illustrates this trend and provided it with a political theory. Ancient communities, with their allegiances, their customs, and their particularities, were dissolved and replaced by individual citizens. Loyalty to particular territories was replaced by inclusion in the nation one and indivisible. This is the process I have described as the transition from territory to space or from community to citizenship: a society in which all the “lumps” have been smoothed out. This political shift has economic counterparts: atomized consumers and producers were in the same period freed from the shackles of guild organization, allowing them to interact on an integrated labor and commodities market. This is another take on the idea of a “smooth” or “unlumpy” society. The anonymous market mediates between the individual and the world. The peasant selling his wheat on the global cereal market and the consumer who has no idea where what her consumptions comes from, because indications of their origin would count as non-tariff barriers to free trade, are the final avatars of this “lumpless” society.

But in reality, in the late twentieth century, the pendulum swung back the other way. In many countries (of which France was among the last), the weakening of the nation state, which was often enmeshed in the dynamics of urbanization and globalization and which was often accompanied by the remodeling of territorial collectivities into agglomerative structures, resulted in cities being granted greater means and autonomy to determine their own future. Living communities (or “destiny communities”), reorganized into urban territories, have emerged as a much needed mediating point between individuals and the world.

These are the facts. If one examines our society and economy and considers the future, it is clear that these kinds of roles will be even further reinforced. The growing importance of the territory draws on four considerations.

The first consideration relates to the introduction of human activity into the biosphere. Territories are the appropriate level for managing this issue. As soon as people know just a little about sustainable development, and when they seek a better lifestyle in which the search for wellbeing is related to the European consumption of energy and materials, they understand that neither states, for whom daily relations are abstract, nor companies, which are organized into production chains, are suitable places for managing relations that concern the system as a whole. It is at the level of territories that a new systemic approach to management must be learned, integrating all facets of human activity.

The second consideration pertains to social management. 70% of the Millennium Goals depend on the action of cities rather than of state. And, in economically developed countries, social cohesion depends on territorially-based cooperation.<sup>201</sup>

The third consideration relates to energy consumption. The latter grows rapidly when the density of spatial occupancy decreases: the more a city is spread out, the more energy it consumes. Given the inertia of infrastructure systems and the housing stock, the danger is that cities that are too spread out could become obsolete if there was a severe energy shortage. The residential problem could perhaps be resolved by decentralized energy production. But for transportation, things will be much more difficult. More than 70% of final energy consumption,

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<sup>201</sup> MartineMuller (dir.), *Des alliances pour des territoires innovants et solidaires*, Éd. Charles Léopold Mayer, 2001. Téléchargeable sur le site [www.eclm.fr](http://www.eclm.fr)

with the exception of non-energy related uses of fossil fuels, comes from the residential sector and transportation, both of which are effectively tied to territories.<sup>202</sup>

Finally, the fourth consideration is a consequence, as we have seen, of the “knowledge-based economy’s” very nature.

Territories are important for governance, in short, because they play a unique role in achieving two of its goals: reconciling unity with diversity and managing relations.

Their role in managing relations explains why, when economy gives way to oeconomy, territories become increasingly important. I am now convinced that territories will count among the twenty-first century’s pivotal actors, provided that they are understood in radically new terms and are accompanied by new institutional arrangements. It is to the task of proving these claims that I now turn.

## **2. Territories as Actors**

“Territories as Actors”: could this term mean anything, or is it simply a manner of speaking? It obviously refers to the increasing role played by local and regional authorities, the largest of which have become important players on the international stage. But can one really speak of a territory as an “actor”? And what *is* an actor?

First of all, we must stop thinking that only institutions can be actors, since this leads us to think of an actor as having an “inside” and an “outside”, and to place invariably unity “inside” and disunity “outside. We have already seen how poorly the idea of the nation as “one and

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<sup>202</sup> Bernard Laponche, *Prospectives et enjeux énergétiques mondiaux*, op. cit.

indivisible,” standing up against a foreign and barbarian world, reflects contemporary society.<sup>203</sup> The same can be said for institutions. In both cases the “inside world” is full of tension and its members linked to the “outside world” by numerous bounds of solidarity and affinity networks. This is also true of businesses. A company has a legal status that makes it a stable over time; it has financial and social capital; records of its internal and external transactions; a board of directors; a technical structure and decision procedures; and employees endowed with human and intangible capital. All management techniques are more or less aimed at strengthening the company’s cohesiveness and getting employees to participate in the achievement of a common goal. But does this make it totally homogeneous and united? This is far from certain. We have even seen that the legitimacy of company leadership—shareholders and management—is often challenged, both by “insiders” and “outsiders”. Is every company capable of lasting over the long term, of defining a vision for the future and a strategy embraced by all its employees? Of course not.

If one defines “actor” as a group of people who can, at a particular moment, pool their creativity, skills, know-how, and financial resources; who can commit their short-term actions to a long-term goal; who can take on the opportunities and hold tight when adversity strikes, who can anticipate and adapt to change, then an actor is not necessarily an institution—and all institutions are not necessarily actors.

I personally worked for many years to promote the international activities of the Alliance for a Responsible, Plural, and United World. I witnessed first-hand the cultural obstacles to understanding how such a network works. As a result, I began using the term “collective living beings” to describe these types of organizations—networks, alliances, coalitions, forums, or

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<sup>203</sup> “Barbarians” in Greek means “those who stammer,” in other words, those whose language is not understood because they do not belong to the Greek world.

virtual communities—which are part of a world and yet which are not, legally speaking, “institutions.” I realized at that moment that we must stop identifying actors as institutions and define exactly what an actor is.

An important consequence of these thoughts is that one is not born an actor, one becomes one. A territory—i.e., a totality of human relationships—is not necessarily an actor as such; yet if a will is there, it has the capacity to become one.

In *L'État au coeur*,<sup>204</sup> the book I wrote with André Talmant on reforming the state, we explained the three stages of building a relationship between government bureaucracy and society: understanding; dialogue; and planning. These three stages are just as useful for describing, in general terms, how organizations become actors.

“Understanding” refers to a collective effort to share information and acquire knowledge of ourselves and the world around us. Business consultants have developed methods for systematically diagnosing efforts aimed at reaching collective understanding, the most famous of which is SWOT (Strengths, Weaknesses, Opportunities, and Threats). Local authorities often speak of a “shared diagnosis” to refer to collective efforts to share an understanding of the world. Applied to a society, this is the same idea that is found in the inscription on the Delphic temple’s forecourt: *gnothi seauton*, “know thyself,” be aware of yourself and your limits. “Know who you are”: build systems of information, measurement, and analysis that make this knowledge available. This is the first stage.

The second stage—dialogue—reminds us of an essential prerequisite to creating a sense of shared destiny. Without it, there could be no actors. It is through dialogue that “islands of trust” are formed, that transactions turn into lasting relationships. Dialogue and trust are

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<sup>204</sup> Pierre Calame, *L'État au coeur*.

necessary prerequisites for cooperation. This is central to the dialectic of unity and diversity, an essential component of the art of governance.<sup>205</sup>

The third stage in the development of an actor is planning. Let me recall at this point what I said (when discussing strategies of change) about building a shared vision. When actors are not institutions, planning refers to a process whereby people and organizations that are not bound by hierarchical relationships are mobilized on the basis of shared perspectives. No one is in a position to tell others what to do. An actor's planning is more strategic than bureaucratic: in an unpredictable world, each participant must be able to seize opportunities that might help to achieve the common goal. A plan is lasting, while individual initiatives are diverse, independent, and spread out over time. As the French sociologist Pierre Veltz writes: "The ability to plan and the existence of well-defined frameworks for collective action are the essential ingredients for development without a fixed model: hence the importance of institutions and public policy."<sup>206</sup> Similarly, the economist Christian de Boissieu explains that energy transition will only take place if public policies are highly predictable over the long term.<sup>207</sup> An actor cannot exist without planning and resolve, which together form the backbone of collective action. These elements have the same purpose as that which Pierre Massé, a former director of French economic planning unit, once attributed to five-year plans: minimizing uncertainty for all actors.<sup>208</sup>

Now that the territory-as-actor has been defined, we must understand why it is destined in upcoming decades to become one of oeconomy's two major pillars. To begin with, let's consider the concept and specifications of "territorial oeconomy." They derive from oeconomy's general

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<sup>205</sup> André Lévesque, the founder of the André Lévesque Fondation André Levesque for the Furture of Relationships calls this a "creative relationship." See notably André Lévesque, *Partenaires multiples, projet commun*, L'Harmattan, 1993.

<sup>206</sup> Pierre Veltz and Michel Savy, eds., *Économie globale et réinvention du local*, Éd. de l'Aube, 1995.

<sup>207</sup> Christian de Boissieu, "Conclusions du groupe de travail sur le facteur K," Conseil d'analyse économique, [www.industrie-gouv.fr/energie/facteurk.htm](http://www.industrie-gouv.fr/energie/facteurk.htm).

<sup>208</sup> Pierre Massé, *Le Plan ou l'anti-hasard*, Hermann, 1991.

specifications, which stipulate that oeconomy seeks “to create actors, institutional arrangements, and rules.” By institutional arrangements, I mean “actors and the system of relationships between them.” When discussing the principles of governance, I stated as my fourth principle the “requirement that actors and institutional arrangements be competent and efficient.” An essential element of governance is the art of devising arrangements and processes that “naturally” achieve the goals they have been assigned.<sup>209</sup>

Oeconomy’s goals are no different than those of governance, namely: social cohesion; personal development and growth; peace and security; balance and long-term sustainability between human society and the environment. Oeconomy’s specifications simply spell them out: “to guarantee for humanity as much well-being as possible, by constantly seeking to preserve and enrich the biosphere, by preserving the interests, rights, and abilities of future generations, in conditions of responsibility and equity to which all can adhere.” These terms will serve us in defining “territorial oeconomy” and sketching out its institutional arrangements.

Though our domestic sphere, particularly our activities of production and exchange and our use of natural resources, has become global, this does not mean that individuals should be reduced to the role of producers and consumers of goods and services provided by globalized companies. As it is, the current situation is complex and contradictory. As far as products are concerned, brand-names play an essential role. They serve to guarantee quality, in a way that is meant to make clients faithful, trusting, and identifiable. Companies protect their brand-names carefully; listening to our leaders, you would think that counterfeiting is among the most serious economic crimes imaginable. At the same time, however, the idea that products should indicate where they were made is seen as a non-tariff barrier or proof of nostalgic attachment to the local.

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<sup>209</sup> Pierre Calame, *La démocratie en miettes* (“L’ingénierie institutionnelle : la conception des institutions et de leur fonctionnement”).



Yet it is central if we want to make the production and exchange tangible and reinforce the bond between man and nature.

In pleading for a major recognition of the role territories play in the oeconomy, I am not saying that we can “hide” from globalization, nor am I calling for a return to the age of self-sufficient local economies. The “re-localization of the economy,” as it is often called (and whose advantages I will explain later), should not be seen as a return to the past, but rather as a rediscovery, in the age of globalization, of the importance of territories.

To understand this idea, we must consider things through a different lens. Too often we think of a territory as a physical geographical area (i.e., a surface indicated on a map by dotted lines) or as an administrative or political structure (the ones who draw the dotted lines). Consequently, the governance of a territory is conflated with the actions of these structures. Instead, we must consider a territory as a nexus situated in a network of relationships<sup>210</sup> extending across the world: relationships between people, societies, and between humans and their environment. These relationships are, however, in crisis. Growing recognition of their importance makes the “re-localization” of our thinking necessary. In 1997, an international workgroup met in Jonquière (Quebec) to think about the management of territories. The resulting “Jonquière Declaration”<sup>211</sup> emphasized that a territories can and must serve as a basis for a radically new conception of development. It will balance the vertical approach of value chains with a horizontal one. Rather than replacing one with the other, our goal should be to define two principles: that of territories, which strengthen relationships within society, between societies, and with the biosphere; and that of value chains, which organize the production process.

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<sup>210</sup> See the edited volume, *Territoires, penser localement pour agir globalement*, Cahier de proposition de l’Alliance pour un monde responsable, pluriel et solidaire, Éd. Charles Léopold Mayer, 2005. It can be downloaded for free from [www.eclm.fr](http://www.eclm.fr).

<sup>211</sup> Ina Ranson, ed., *Repenser les territoires : construire des perspectives communes*.

To establish the specifications of territorial oeconomy one step at a time, I will consider in turn each of oeconomy's main elements. This approach will be somewhat laborious. I ask the reader's forgiveness, as I was unable to find a more suitable approach to exploring these issues.

### **3. Territorial Oeconomy and the Mobilization of Capital**

Territory is relevant, in the first place, for the mobilization of four kinds of capital. *Material capital* is mixed. It includes both public and private capital. In both cases, it is territorialized: private capital consists of buildings and machines, while public capital consists of roads and transportation infrastructure, the housing stock, and everything that used to be called (in times when Marxism was fashionable) "the conditions for reproducing the forces of production."

*Human capital* is the totality of individual skills, knowledge, and experience. It is not particularly mobile. Mobilizing human capital is fairly easy for simple economic units requiring only unskilled labor. It becomes, however, a major determinant for efficiency as soon as a knowledge-based economy begins to develop. This capital is created, preserved, and developed at the level of territories. A major challenge faced by territory-actors is to consider their human resources as a whole, showing as much concern for them as they show companies. These first two kinds of capital do not require extensive discussion. I will, however, dwell a little longer on the last two.

Some *intangible capital*, such as software, has no physical basis; but some is much more localized. It consists of the arts of organization and governance, of networks of trust, and of habits of cooperation between different kinds of actors. It is the fruit of lengthy learning

processes that have become cultural traits. Nothing expresses the collective and determining character of these learning processes better than the fact that, half-way around the world, a group of people will, like a swarm of bees, reproduce the organizing principles of the community from which it hails. One of the finest examples I know concerns the Germans living in the Soviet Union, whom Stalin, out of suspicion, deported to Central Asia. Some were literally dumped onto new territories, simply because that is where their transport happened to break down. In places like Kyrgyzstan, they built German villages as perfectly as a sunflower seed produces a sunflower when it falls off a trailer. Cultural, intangible capital includes elements that are national, which is why economic rivalry between nations does not involve a “race to the bottom” in terms of salaries, but rather a competition between different systems of organization. But it also includes many local characteristics.

Competition between territories is also a competition between types of organizations and between different capacities for cooperation. In a study from 1987, I emphasized the importance of a territory’s particularities, observing, for instance, that while industrial cities that had developed in the nineteenth century often found themselves in crisis, older commercial towns, which had stagnated for decades, were being reborn, since the abilities and types of organization required by a modern economy were closer to those of commercial towns than to those of industrial cities.<sup>212</sup>

Over the past twenty years, increasing attention has been given to emerging systemic effects of cooperation. This was the case in Emilia-Romagna and other Italian industrial districts. Adriana Luciano, a professor of labor sociology at the University of Turin, notes in 2006: “The success of small companies in Italy between 1970 and 1980 is known throughout the world. Their success was based on a dense network of social relations between entrepreneurs, workers,

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<sup>212</sup> Loïc Bouvard, Pierre Calame, *Le dialogue des entreprises et du territoire*.

local associations, political parties, and religious organizations. It allowed different actors to work collectively and to be able to count on great flexibility in the production process, increasing capacities of innovation, modest labor costs, and major capacities for penetrating international markets.”<sup>213</sup> One should not have a romantic vision of the origins of these Italian districts, which hosted mostly small companies. The labor force was not very qualified, companies were not very structured, and they were later the victims of outsourcing. But the very fragility of each company calls attention to the “systemic effects” of their cooperation. This is what allowed them to get a foothold on the international market, while their isolated peers could at best only survive in local markets.

The example of the Italian districts contributed to a renewed interest in economic geography and “economic clusters.”<sup>214</sup> Michael Porter points out: “If the former consideration of consolidating economic activities has become less important with economic globalization, other considerations have on the contrary played an increasing role in international competition, in a complex and dynamic economy largely founded on knowledge. Clusters represent a new way of conceptualizing national and local economies and entail new roles for companies, public authorities, and other institutions which promote competitiveness.” In France, clusters have become, through the promotion of “poles of competitiveness,” the key concept of the DIACT (the Inter-ministerial Delegation for the Development and Competitiveness of Territories). Way back in 1994, Pierre Veltz published a small book with an evocative title: *Territories for*

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<sup>213</sup> Adriana Luciano, “Italie : la culture de l’innovation, un enjeu politique,” in *Pour* 192, December 2006. See [www.grep.fr](http://www.grep.fr).

<sup>214</sup> See, for instance, Michael Porter, “Locations, Cluster and Company Strategy”, in *The Oxford Handbook of Economic Geography*, Oxford University Press, 2000.

*Learning and Innovation*, which shows that fostering relationships and solidarity between actors is now more decisive than the location of infrastructure and equipment.<sup>215</sup>

This discussion contains a lesson that is very important for what follows: in the institutional arrangements of the future, a system of structured relationships can play a decisive role *without* being formalized or transformed into new institutions. Networks of trust, an ability to work together, bonds of solidarity that are sturdier than legal bonds, the pooling of experience, learning that occurs over the long term—all of these factors belong to the domain of relationships (as we called it earlier) rather than transactions. At the individual level, they are often described as “social” or “cultural capital.” They are essential to a society’s resilience, to its ability to spring back from a crisis. Statistical tools often have a difficult time detecting these characteristics, precisely because they are informal and qualitative. Such intangible capital explains the decisive role played by diasporas in economic development: the Chinese diaspora in Southeast Asia, the Lebanese diaspora in Africa and Latin America, and so on.

Let us turn now to the fourth category of capital, *natural capital*. Even if it can only be defined at a global level—as with the climate, the halieutic capacity of oceans, and biodiversity—this natural capital remains for the most part localized: soil fertility, water quality, the potential for renewable or fossil energies, biomass, and raw mineral materials.

For millennia, societies have maintained natural capital, using natural resources without killing “the hen that lays golden eggs.” Those who failed to respect this rule, as the Roman Empire, perished. Hence the beauty of the definition (mentioned above) that Carl Linnaeus gave of oecology as early as the eighteenth century: “the art of preparing natural things for our use, the art of making use of all of Nature’s goods.” Making *use* and not making *profit*: all the difference between wisdom and madness (to borrow from the Gospel’s parable of wise and mad

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<sup>215</sup> Pierre Veltz, *Des territoires pour apprendre et innover*, Éd. de l’Aube, 1994.

virgins) lies in this distinction. The idea of making the best possible use of the ecosystem, while preserving its potential, is central to oeconomy's specifications and offers us a roadmap to the oeconomy of territories.

An agricultural property managed in a competent and sustainable manner, which makes use of its natural resources in a way that is genuinely beneficial to people, while also guaranteeing that at the end of each annual cycle the property's potential are not only preserved but also enhanced, is a fitting metaphor for territorial oeconomy.<sup>216</sup> A territory is an ecosystem. Like oeconomy, it is not closed in on itself. It constantly interacts with the outside world: it interacts with the atmosphere both by producing oxygen, carbonic gasses, and nitrogen and by throwing out many more or less degradable molecules; it interacts with the earth's substratum, particularly through soil transformation; its water resources participate in the planet's water cycle; it circulates the genes of plants and animals; it participates in the migration of insects and birds, etc. In these respects, it gives us an implicit mental image of the oeconomy.

If we can speak of a local ecosystem, it is because we can describe this ecosystem's "skin"—the virtual "membrane" through which interactions with the outside must pass. Moreover, the interactions within this "membrane" are particularly intense and complex compared to those on the outside. Consequently, we might speak of a "territorial metabolism" as the metabolism of matter, energy, and information. For better or worse, human activity participates in local ecosystems and is so important that one cannot understand an ecosystem independently of it: ecosystems do not exist apart from man's presence, even in the deepest reaches of Siberia or the Amazonian rainforest.

Consequently, the question of whether human involvement in ecosystems and the new metabolisms resulting from it are sustainable or contribute to a regular increase in entropy

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<sup>216</sup> See [www.labergerie-villorceaux.net](http://www.labergerie-villorceaux.net).

(despite the permanent contributions of solar energy) is a life-or-death question for our societies. And yet our current economic system condemns us to be ignorant of these territorial metabolisms. The idea that everything has a monetary equivalent and the gradual disappearance, between the sixteenth- and the nineteenth-centuries, of the ideal of managing local natural capital as a “good father” (because we have been so certain, ever since the “age of discovery,” that American gold and silver would increase the money supply, that vegetal and mineral resources from across the world would feed our populations and our factories, and that fossil energies like gas and oil would be provided in unlimited quantities) have literally blinded us to our own metabolism at both a planetary and a local level.

An anecdote from the early 1990s illustrates this point well. As late as this period, the Ile-de-France region (the city of Paris and all the surroundings)—one of the richest and most sophisticated “territories” in the world—did not even know what energy flows were entering and leaving it! So how could one hope to understand its territorial metabolism? Two thousand years ago, even the most remote Chinese village had an infinitely superior understanding of its metabolism than a modern metropolis—precisely because its survival depended on it.

Such ignorance is the consequence of two intimately related factors. First, no one felt the need to comprehend the local natural capital and the exchange flows that constitute the territorial metabolism. Furthermore, the institutional arrangements simply ignore the management of the region’s natural capital and the sustainable functioning of its territorial metabolism. Yet as I have shown, a permanent system of measurement cannot exist unless an institution has a daily need for it. Our image of society is in many ways a patchwork of the information that institutions produce, which itself is a by-product of the inherent needs of institutional arrangements. Suren Erkman has shown this very effectively in relation to companies and industrial ecology.

Companies know a great deal about their operations or inventory (for example), as long as these factors impact its bottom line and its profits; but they are almost entirely ignorant of the flows of matter passing through them, if these are not included in its system of accounting.

Consequently, institutional arrangements must be conceived in such a way that they have the need—an inherent need—for understanding this metabolism. The most basic need is that of accountability: institutional arrangements must be required to keep track of the state of the four categories of capital at the beginning and end of each annual cycle. This will oblige them (as we already saw for the planetary level) to analyze these different kinds of capital and to agree on a way of describing their condition. In 1974 Lester Brown founded the World Watch Institute, which publishes each year a report on the state of the planet. Through the publication of its annual report, *The State of the World*, the institute has developed a global standard, tracing the overall evolution of the planet. In the 2008 edition, *The State of the World* emphasized the increasing awareness among CEOs of environmental risks, but also of the technical possibilities of guaranteeing the traceability of consumption and emissions at every stage of the production process.<sup>217</sup>

#### **4. Territorial Economies and Resource Mobilization**

Apart from capital, production and exchange also mobilize three other resources: human work, natural resources, and information.

Human work must be considered from four different angles: as fostering social bonds, as contributing to well-being, as enabling social inclusion, and as requiring fairness.

First, let's consider the creation of social bonds. Does work facilitate the creation of bonds, whether at the local or the global level? Can it foster local cohesion while simultaneously

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<sup>217</sup> See Daniel C. Esty's editorial at [www.worldwatch.org](http://www.worldwatch.org).



establishing a world community? How does one make the shift from transactions (which are abstract and brief) to relationships (which are concrete and lasting)? And should one simultaneously strive for local autonomy and global solidarity? There are two answers to these questions: traceability, which allows us to know where the origins of the labor incorporated into the goods and services we consume; and a clear distinction between work performed inside a territory and work that comes from outside.

The second angle from which work must be considered is well-being. Does work provide those who perform it with a sense of dignity? Does it offer them opportunities to live in accordance with their fundamental political, economic, social, and cultural rights, which are recognized by various international agreements? Does work give workers an opportunity to create? Does it add to their “cultural capital,” their social network, or their sense of worth? Does work allow them to bring their actions in line with their beliefs? These questions belong to the specifications of territorial institutional arrangements. They concern both the ways in which the common good is pursued at local levels (along the lines of Community Interest Companies) and internal procedures of economic actors.

The third perspective on work is its inclusive character. I realize that the obligation to be socially useful has a bad reputation, at least in France. For some proponents of the welfare state, this idea too readily recalls nineteenth-century sweatshops, where the poor labored in conditions that were only barely distinguishable from slavery. By the late twentieth century, the controversial issue had become the industrial labor conditions in developing countries. Opponents appealed both to humanitarian arguments—child labor, the work conditions of Mexican *maquiladoras*, Chinese workshops, Bangladeshi companies—and to a fear of unfair competition, made possible by low wages, leading to the kind of “race to the bottom” of wages

and salaries routinely denounced by unions. This debate is essential. I do not mean to sidestep it; rather, I want focus on how it relates to territories. My views were shaped during the 1980s, when the nature of social exclusion began change. I realized that our society was becoming one in which “the rich no longer needed the poor.”<sup>218</sup> Consequently, by putting human labor and natural resources on the same level, one ran the risk of a total misunderstanding. I was particularly marked by my personal experience of the industrial crisis in Valenciennes, in northern France, which saw its mining and industrial basin swept away in the seventies. I discovered firsthand the illegitimacy of an economy that could, at a local level, allow idle hands, untapped creative energy, and unsatisfied needs coexist in the same household, floor, or neighborhood. There may be good social and fiscal reasons for this kind of situation, but it is still an outrage. Efforts were made to overcome the crisis by creating local exchange trading systems (LETS) or companies that sought to place workers into particular industries. I also realized that national policies for fighting exclusion suffered from an original sin: their assumption is that national solidarity is primarily owed to those who suffer from some kind of personal handicap. While this might seem sensible, it has the unfortunate consequence of trying to help people to develop by emphasizing what they lack. Yet any time one helps someone develop, whether it be a child or an entire people, one must start from their capacities—i.e., what they have.

How do we get beyond these policies’ original flaw? This question led, during the nineties in France, first to a manifesto, than to an organization of *pactes locaux* (local pacts). Similar ideas also inspired, around the same time, the creation at the Europe level of Territorial Employment Pacts.<sup>219</sup> Territorial oeconomies spontaneously require such pacts.

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<sup>218</sup> Pierre Calame, *Mission possible*, op. cit., first published by Desclée de Brouwer, 1994, then by ECLM2003. See the chapter entitled “The Rich No Longer Need the Poor.”

<sup>219</sup> [http://ec.europa.eu/regional\\_policy/innovation/innovating/pacts/en/index.html](http://ec.europa.eu/regional_policy/innovation/innovating/pacts/en/index.html).

Finally, the last angle from which work must be considered is that of fairness. Territorial oeconomy must allow the distribution of added value to be transparent.

After work, natural resources are the second resource that oeconomy mobilizes. They raise two questions: how much natural resources do we consume? Do we derive from them the optimal degree of social well-being? The premises for answering these questions can be found in three ideas: energy efficiency; the analysis of material flows and MIPS (material input per service unit); and human and industrial ecology, which offers a general framework for a more integrated approach to economic activity. In addition, two other concepts need development: collective living being and of exergy.

I have already spoken of collective living beings, which have all the characteristics of organized living systems while lacking institutional and jurisdictional limits. The idea of collective living beings is obviously evocative of the living beings one encounters in nature, ranging from single-cell organisms to human beings and even ant colonies<sup>220</sup> or bee swarms, which have long been described as “superorganisms,” since their self-regulating mechanisms resemble those found in individual organisms. To consider a territory, and particularly a “territory turned actor,” as a living organism, has immediate consequences. We should first note that this organism has “skin,” a membrane (which, in the case of superorganisms, is virtual) through which it filters its interactions with the outside, using them in the organism’s best interest. I can already hear the free-market zealots cry: “you are gradually reintroducing protectionism! But don’t you realize that such barriers, by filtering trade, are an obstacle Pareto optimality?”

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<sup>220</sup> Dominique Lestel, “Où commence et où finit un corps de fourmi,” in *Cahiers de psychologie clinique*, n° 30, De Boeck Université, January 2008.

Fortunately, this objection is easily brushed aside. The same zealots would presumably admit that companies—some of which are more powerful than many states, and thus, presumably, many territories—also behave like living organisms with membranes that filter out their relations with the outside world. One merely has to designate each territory as a “Territory-Company, Inc.,” and the problem is solved. I propose that we call the way in which territories manage their relations with the outside world the art of “open-closing.”<sup>221</sup> This term makes it clear that a territory is never completely open nor completely closed on itself. We have seen, moreover, that the skill of “open-closing” has been central to the historical paths taken by many nations.

The second concept that I will be using is that of exergy. The term might seem scholarly, but its concrete meaning will quickly become apparent. The term originated in thermodynamics. Its fate, however, has been comparable to that of “greenhouse effect” in debates over climate change: it is an old concept (“greenhouse effect” was already used in the early twentieth century, having been invented in the nineteenth) that fell by the wayside before being rediscovered when it suddenly proved useful for articulating a pressing social problem. The term “greenhouse effect” became popular in the late twentieth century because of growing awareness about climate change. The concept of exergy has had a less brilliant career, but it was dusted off and put to use during the first energy crisis. What will be the fate of the concept of oeconomy, exhumed from the eighteenth century? Only the future will tell ...

In thermodynamics, exergy refers to all the energy in a system that is available for human use. It consists of work (the energy needed for motors) and heat. According to the second law of thermodynamics, not all the energy in a system can be extracted from it. Even less can be turned

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<sup>221</sup> The author uses the French neologism “*overmeture*,” a contraction of *ouverture*—“openness”—and *fermeture*—“closing.” (Translator’s note).

into work. These ideas can be illustrated by thinking about the process for making olive oil. Work is like the olives' first cold-pressing, while exergy is all the oil that can be drawn from olives through thermal procedures and extractive chemicals. Though a comparison cannot be persuasive as such, it conveys at an intuitive level the point that I am trying to make: work is premium energy; exergy is its leftovers. The connection between what Linnaeus called the "art of making the most of all nature's goods" and exergy is self-evident: to mobilize exergy is to make the most of a particular quantity of energy. I discovered the importance of the idea, if not the concept, in 1971 while I was studying economic development in Algerian towns. I observed that their population growth were a far cry from the calculations I got while following the models I learned in France. In a nutshell, these theories claimed that one finds two kinds of jobs in cities: "base jobs," which produce goods that are sold outside the town and thus provide it with resources, and "induced jobs," which are tied to local household spending (industries supplying the local market, building, businesses, public and private services, etc.). Normally, the ratio between base and induced jobs is fairly stable (depending on a given's town size): base jobs drive growth, while induced jobs are multipliers. Today, the term "base job" must be replaced by a broader concept, such as "base entering resources." The reason is that social transfers, retirement, unemployment indemnities, social security, and so on, have taken on much greater economic importance in most modern cities, even as we remain in the grips of antiquated ways of thinking. How does a given territory use the goods that filter through its membranes? And what explains the enormous population disparity between Algerian towns in 1971 that received the same quantity of external resources? Elementary, my dear Watson: different towns use these resources differently. In some cases, the redistribution of resources within extended families and the purchase of locally produced goods and services promoted the circulation of money within

the city, ensuring that it only left when it was needed to buy staples that the town could not produce for itself. To return to my metaphor: oil was drawn from olives by every means available. Yet in case where modern sectors were grafted onto local and (from their perspective) alien societies, salaries were paid to people who aspired to a “modern” lifestyle and were thus used to purchase goods and services that the town itself did not produce. Money left the town as quickly as it entered, with no benefits to the local economy. When I was a child, I knew of a large American company based in France that experienced precisely this problem. The base’s employees brought in everything from the United States, including food. Consequently, the local benefits for what amounted to a considerable injection of money were quite modest. The same is true of certain tourist complexes, which in some developing countries benefit from a quasi-extraterritorial status. Thierry Lassalle, a French agronomist and an expert on southern Africa, once explained to me how social benefits were distributed to the rural black population after the end of apartheid. The day the subsidies were handed out, white farmers in pick-up trucks were always nearby. This way, the recipients could instantly use their cash to buy agricultural produce. Why? Because the local black population no longer had the know-how or ability to produce and trade. Taking the opposite approach, local development tries to make maximum use of all the resources that enter a community. It seeks, in other words (returning to my metaphor), to extract as much oil from the olives as possible, beginning with the high quality oil from the first press, followed by lesser quality oils, and so on. Ultimately, the press cake is fed to animals and the burnable leftovers are used for heating. Nothing is thrown away except unusable residues. Gorgeous olives are the input; the output, carbon gas and clinker.

In a given territory, exergy can be used in multiple ways, but the purpose is always to bring a chain cycle to conclusion. The chain should be as long as possible: each link’s waste

products become next link's raw materials, until all available energy—work, heat, and chemical potential—has been exhausted. A hydroelectric power station's cooling water heats residences, household waste becomes compost and biogases, plastic waste is used as building insulation, home appliances are dismantled and rebuilt on the spot, rainwater is used for laundry or watering plants, old sheets become rags, linens are unsown and re-sown, and our “Sunday best” become our work clothes. Home oeconomics—the art of the leftover—was well-known to our grandparents. For many young people, hardly a memory remains.

How do we put exergy into practice? Three conditions are required.

First, we need to understand flows and circuits. One must be able to distinguish clearly between external and internal exchanges. This requires, in the first place, a tool for measuring entering and exiting flows. Next, we need separating accounting units—i.e., a currencies—for internal as opposed to external exchanges.

Secondly, we must replace consumption of natural resources and imported goods with local work, just as our grandmothers would mend socks rather than throw them out and buy new ones. This substitution requires an appropriate fiscal structure, one that rewards work and penalizes imports. Taxing the consumption of natural resources instead of work is far preferable to taxing flows entering a territory.

Third, we must change our conception of goods and services. This is both the goal of the opponents of our “throwaway” society, who advocate greater consciousness of a product's complete lifecycle (i.e., “from cradle to grave”), and the core principle of a “user society,” which seeks to replace each good—for instance, a car, a photocopier, or kilowatts—with a corresponding service: a convenient way to travel, photocopies on demand, or a certain level of home comfort. The transformation of goods into services presumes a modular or standardized

framework, allowing a unit of the good to be replaced by a generic unit fulfilling the same function. It also requires norms of inter-operability and the development of territorial recycling services, based on the principle of exergy: goods begin their lives with their highest quality uses and end them with more ordinary uses, like those bathtubs one sees in the countryside which end their careers as troughs.

Territorial oeconomy must thus answer the questions “how much do we consume?” and “do we make the best use of our resources?” as follows. First, it emphasizes the traceability of the energy, natural resources, and work that enter and exit a territory. The traceability of goods and services means, first of all, knowing what flows are entering, and, second, knowing their content in energy, natural resources, and work—in other words, everything that was mobilized across the production and transportation chain. New information technology will make it possible in the near future to add up these three production factors, just as we now do with added value. Often, we lack “upstream” information. In such cases, our approach should be the same as a toll-booth attendant: if you don’t have your ticket, we assume you’ve driven the whole road. This creates a strong incentive to hold onto one’s ticket. The Germans, as we have seen, use the nice expression “ecological rucksack” to designate a good’s contents in energy and natural resources.

Empirical studies of the ecological rucksack of our consumption have, moreover, since the beginning of the twenty-first century, made it possible to establish the precise conversion coefficients of goods into natural resources and to achieve better understanding of the considerable discrepancies in resource consumption between different households. A Finnish study presented in March 2008 at the Sustainable Consumption Research Exchange (SCORE) conference in Brussels shows that the variation in natural resource consumption from household



to household can be as great as 1 to 10. The most determining factors are income—the more one has, the more materials one consumes—and lifestyle choices, particularly residence, transportation, tourism, all of which are heavily tied to energy and, to a lesser degree, food.

The canton of Geneva in Switzerland offers an excellent example of the territorial approach.<sup>222</sup> Beginning in 2001, it initiated a canton-wide study of its industrial ecology. Conducted between 2002 and 2005, the study examined the entry and exit flows of seven major goods: water, energy, metal, wood-paper-carton, plastics, construction materials, and food products. It makes it possible to grasp the major flows.<sup>223</sup>

The study was conducted primarily to analyze opportunities for creating greater synergy between different Genevan activities, with the view to making the canton's recycling system more efficient. It did not look "upstream" to determine which natural resources were mobilized to produce the entering metals, wood, plastics, and construction materials. Yet both the Finnish and the Genevan studies suggest that, in the near future, it will be possible to have complete analyses of material flows, thus raising awareness of how greatly ecological rucksacks can vary in relation to modes of production.<sup>224</sup> To take but one example: recycled aluminum mobilizes four times as many resources as primary aluminum. This data thus increases our own self-understanding, which becomes increasingly important as we abandon an abstract monetary economy for an oeconomy of the real.

The next question is: do we know how to make the best of resources entering a territory or located within it? Our thinking about this issue is much less advanced. In fact, this question

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<sup>222</sup> Service cantonal de gestion des déchets GEDEC Écologie industrielle de Genève ; premiers résultats et perspectives, [www.geneve.ch/environnement\\_info](http://www.geneve.ch/environnement_info).

<sup>223</sup> Guillaume Massard, Suren Erkman, "l'Écologie industrielle à Genève," ICAST, seminar held on November 10, 2007.

<sup>224</sup> See [www.noah.dk/baeredygtig/rucksack](http://www.noah.dk/baeredygtig/rucksack).

can be broken into two: do we know how to take advantage of resources? And if so, do we have a strategy for doing so?

We are only dimly aware of how we use natural resources. Why? Because our existing institutions and arrangements have no functional need for this information; consequently, they do not seek it. For instance, because the value added tax is a national tax, the considerable information that fiscal data offers is not exploited at the territorial level. Recording the geographic origins of the scores of VATs deducted from any given commercial undertaking would be a first step towards understanding the extent of local exchange. The most reliable method, however, would be a tracking device reserved for internal exchange—in other words, a local currency. In the chapter on finance and currency, I will analyze new ways for carrying out currency's traditional functions, as well as the possible roles that local and regional currencies could play. For now, let us focus on the tracking function, which relates to the role currency plays in exchange. The main requirement is the generalization of electronic billfolds for transactions currently using paper money. Other transactions, such as checks and credit or debit cards, are already electronically recorded, which makes keeping track of where they are made relatively simple. This kind of analysis can easily be completed by monographic studies that correlate statistical data with particular lifestyle habits, like the Finnish study of how ecological rucksacks vary from family to family. The interest in an analysis of exchange flows both inside and outside a territory is that it facilitates a kind of double-entry territorial bookkeeping, which could be essential for consolidating territorial accounts.<sup>225</sup> This is especially important when one considers that several territories can be subsumed under a larger one.

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<sup>225</sup> For these thoughts, I am grateful to the Filipino economist Sixto Roxas, particularly the book *Alternative Community Centered Accounting*, 1994. The book can be downloaded at [www.core-dem.info](http://www.core-dem.info) or on Sixto Roxas's personal website: [www.sixto-k-roxas.org](http://www.sixto-k-roxas.org).

The absence of such data has, needless to say, no relation to the technical possibility of generating it. As the Geneva study, for instance, demonstrates, an interest in recycling “upstream” materials and energy waste (i.e., energy that has degraded into heat) as raw materials for “downstream” industries and in “mutualizing” the benefits of environmental remediation has increased knowledge of territorial metabolisms as well as of the material flows both within and between territories to an extent that was almost unimaginable twenty years ago.

I have already referred, when considering VAT, to the role taxation can play in society’s self-understanding. Is it not the state’s primary concern to have a detailed understanding of taxable resources? In a country like France, both at the national and local level, the existing tax system penalizes work. It is true that, at the local level, the old income tax has been replaced by a “professional tax,” which itself, since 2003, is based only on the land-value of local capital assets, now that the share based on income has been abolished. Furthermore, this tax increasingly benefits inter-municipal structures. It is, one might say, a “territorial tax.” Both changes are headed in the right direction, but the tax base still consists of corporate capital assets located in a particular territory. Consequently, they generate no useful information on a territory’s metabolism. If there was a positive rate territorial tax on natural resource consumption, with a deductibility mechanism that was the opposite of the VAT’s, making it possible to recoup taxes on the value of natural resources that were resold; and if, furthermore, there was a negative rate tax (i.e., a tax credit) on local added value (i.e., local labor), the payoff would be twofold: useful information for understanding territorial metabolisms would be generated, and there would be a powerful incentive to recycle materials and to use local labor.

This leads me to the second part of the question: are we able to conceive of a strategy for making the most of resources? One that would push a territory-actor to make the transition to a

“user society”? Could it contribute to the systematic replacement of commercially-purchased goods by locally-provided services? Would such a strategy not be impotent when faced with globalized production? To answer these questions, I would like to suggest three paths.

The first concerns the substitution of goods by services at the local level. With the spread of the internet and the rise of oil prices, carpooling is becoming more widespread. A system of free publicly owned bicycles, which could eventually lead to network of free publicly owned cars, would partially replace privately owned cars and would broaden the range of public transportation services. Urban heating, which relies on burning household waste, is replacing individual heating units. An active policy of heating regulation, of the kind practiced in Lausanne, where local government’s support for renovating old neighborhoods through insulation and the training of the local construction industry ultimately amounts to replacing a good with a service.

The second path relates to “upstream” control of production processes. The buyer’s power, as well as buying’s political and ethical significance, have been repeatedly confirmed over the years. These realities manifest themselves in various ways. “Citizens’ campaigns,” which sometimes go as far as boycotts—I mentioned the case of the offshore Shell drill earlier—have revealed themselves to be very efficient at threatening producers with short-term losses in sales and, in the long run, with loss of professional reputation.<sup>226</sup> In the producer-distributor relationship, power has passed from the hands of major and increasingly concentrated corporations to distributors, who for thirty years have undergone an even more intense process of concentration, making the negotiations between consumer organizations, local government, and major distributors of new strategic importance. The role of “upstream” orders can be seen in the

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<sup>226</sup> John T. Merlin, “The No Dirty Gold Campaign: What Economists Can learn from and Contribute to Corporate Campaigns ,” in the *Economists of Peace and Security Journal*, Volume 1, 2, 2006.

relative weight of public purchasing. Thus, notably in Europe, the trend among major local institutions (for instance, municipalities and hospitals) towards increasingly buying organic farm goods for food service establishments benefits local producers<sup>227</sup> and plays an important role in the redirection of agriculture. Similarly, the decision that some cities have made to convert their computer networks to freeware and Linux sends an important signal to computer manufacturers.

Another important technique for “upstream” orders that will be relevant to territorial oeconomies in the future is group orders. They are developing rapidly with the spread of the Internet. Previously, they served to strengthen consumers’ ability to determine prices. This practice is known as group purchasing. But it is not hard to imagine that on a territory, where the odds are high that potential users might actually know each other, they could be called upon to create new collective services, such as carpooling. Now, employer groups are being started. Once oeconomy’s goals and modalities are widely shared and territories begin to take the long term into consideration, innovations will inevitably blossom.

Information, with work and natural resources, is the third type of resource mobilized by territorial oeconomy. But since information is immaterial, can the territory-actor do anything to mobilize it? The answer is unquestionably “yes.” To say in effect that information’s transaction costs are currently approaching zero does not mean that the cost of accessing relevant information is zero. In fact, intangible capital is usually quite valuable. Yet one of intangible capital’s most important roles is precisely to reduce the cost of accessing reliable and relevant information by spreading the costs of market access (those, for instance, that industrial districts place on small businesses), which can be achieved if there are collective means for tracking technological change and if collective guarantees are used to facilitate access to financial markets.

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<sup>227</sup> Site [www.alimenterra.org](http://www.alimenterra.org).

Today, companies tend to emphasize knowledge management (now a fashionable idea), shared learning, and the “learning business.” All these concepts are easily applicable to territories. Similarly, awareness of local opportunities is very important information. There are, of course, yellow pages and all kinds of local exchanges—for housing, relationships, employment, buying and selling of all sorts—but territory-actors must go further. Flows of exchangeable information that is reliable and relevant (a feature of “islands of trust”) is an essential characteristic of cohesive communities—those where the interaction between stocks of intangible capital and flows of circulating information is the most intense.

## **5. Territorial Oeconomy and Systems of Governance**

After having considered the oeconomic role of territories in mobilizing capital and resources, we must consider the role that governance plays in the various categories of goods and services. The essential has already been said: social capital is characteristic of fourth category goods, water and soil exemplify second category goods, and so on. I will limit myself to reiterating what I explained in chapter 2 on systems of governance. Territories are almost always essential to these systems.

In the case of the climate and the outer atmosphere (see map), the stakes are global and must be subject to global governance. Yet climate change is the result of the daily activities of men, animals, and plants. This leads us to the idea that individuals are responsible for one’s own activity, which leads us to individual quotas; but these quotas must be negotiable, an extension of the market for emission rights that now exists at the level of states and corporations. Territories are the appropriate level for making emission rights communal: compensation for quotas occurs

first at the local level, then extends to broader and broader levels, until the global level is reached.

As for biodiversity (see the map), the situation is similar: maintaining natural and domesticated biodiversity is an emergent property of the system, an outcome of the sum of individual action. The mutualization of seed and genes, on the other hand, has an essential role to play. The idea that a territorial ecosystem has its own biodiversity makes perfect sense. It results both from individual practices—for instance, the kind of agriculture one practices—and from territorialized practices: the maintenance of protected natural spaces, the elimination of barriers restricting the exchange of genes (such as frog columns across highways or salmon stairs), and the organization of seed and animal stem cell exchanges. Territories play an increasingly active role in preserving apple varieties or cows that are typical of their regions. This is a very important factor in biosphere management, one that requires “open-closing”: opening by intermixing, closing by preservation. The governance of the two other goods and services, water and experience, each representative of its respective category, has been dealt with repeatedly in this book, so I shall not return to it. Water management combines the principles of justice and efficiency. It is at the territorial level that this combination occurs. Experience management is central to the development of intangible capital.

## **6. Territorial Oeconomy, Democracy, and Citizenship**

Is it possible to speak, without twisting the meaning of words, of a territorially-based “oeconomic democracy” within a globalized system? Not only is it possible, it is essential. This stems from our claim that territories will be the pivotal actors in the oeconomy of the future. If the pivotal actor is unable to make decisions, can we call it an actor? After all, to be an actor

means to be capable of defining a project, of giving oneself a long-term project that can unite and inspire each individual's own initiatives? And if this vision, which is so decisive for a community, cannot be defined and conducted in a democratic fashion, then democracy is little more than a purely formal residue from the era "prior to globalization."

In the previous chapter, I showed how the principles of citizenship and democracy applied to oeconomy, yet without specifying at what level these democratic procedures should obtain. I simply suggested that, as the idea of governance implies, these procedures should be implemented simultaneously at various levels, in a way that ensures both a maximum degree of autonomy and diversity, on the one hand, and cohesion and unity, on the other. I will now consider these ideas as they relate to territories.

Why is any effort to link economy with local democracy met with immediate skepticism? Because we remain trapped in a compartmentalized mental framework that distinguishes between the economy on one hand, and territories on the other. As for the economy, the media constantly drills into our heads the idea that there are no alternatives. The world market is unified. Everything is over our heads. The economy is governed by scientific laws, and we can no more subtract ourselves from these than from the law of universal gravitation. At best, we can take advantage of the opportunities that globalization's great game offers us. And too bad for the losers.

As for territories, the habit of associating democracy with local government leads us to assume that linking the economy to local government necessarily means direct economic action on the part of local government. Yet the trend in modern societies, which in France is actually legislated, has been for local government to relinquish action, at least direct action, in the economic realm. In any case, it has given up the kind of management companies (exemplified,



for instance, by municipal slaughterhouses) that existed during the interwar period. In the early eighties, I was the assistant director of the urban affairs directorate of the French ministry of housing and equipment. I was specifically in charge of real estate issues. In the Paris region, we were at the time still managing land that the state purchased after the war to implement its urban program, particularly in relation to the severe housing shortage. Neither suburban municipalities nor the building sector could do anything, so the state, by necessity, accepted the role of a real estate promoter. Needless to say, public accounting, given the kind of centralization of decision-making that this entailed, is rather poorly suited to the task! This is the reason French lawmakers decided to end the direct and often reckless intervention of local government into the economic sphere and to favor indirect action instead—i.e., commercial companies with public capital, semipublic companies, or the delegated management of public services. European legislation is headed in the same direction, as it hunts down anything it suspects might be protectionism in disguise.

We must free ourselves from two mental ruts: the first states that oeconomy gives local government no choice, and the second sees territorial involvement in oeconomic choices as a return of municipal socialism.

Ridding ourselves of these ideas will allow us to distinguish properly between oeconomic choices that should be made by public authorities narrowly construed—law, taxation, investment, the management of public services—and those which should be made by territory-actors, which will require new institutional arrangements. This does not mean that insofar as they are also a public authority, local governments will not benefit from new freedoms and means of action. We have already come across two significant examples: transferring taxes collected on the basis of work to the consumption of natural resources and creating local currencies, or, at

least, tools for tracking local exchange. These two possibilities imply changes at the national as well as the European level: one cannot initiate major change at the territorial level on the premise that “all other things are equal.” It is by defining the relationship between oeconomy and democracy at a territorial level that one can best identify changes that must be undertaken at other levels.

In the preceding chapter, I explained, drawing on governance’s general principles, that the very nature of democracy and politics has changed as a result of modern society’s increasing complexity. The traditional emphasis on the moment when a decision is made—i.e., on a choice between two well-defined alternatives—must give way to an emphasis on the procedures whereby a solution that satisfies the greatest possible number is reached. This shift does not relieve political authorities of their decision-making responsibilities, and even less of their responsibilities in the realm of taxation and law. On the other hand, recognizing that the most important decisions are made earlier, in the very process of elaborating political choices and perspectives involving multiple actors, changes the nature of the decision, which is more like a drawing up a negotiated agreement than a sovereign choice between different solutions.

A consequence of this new perspective is that public authorities no longer have a monopoly over the debate process. Democracy opens itself to new methods, actors, and sources of legitimacy. Even so, public authorities remain best positioned to organize an ongoing democratic reflection-process on oeconomy and society continues to recognize their initiative-launching prerogative. It is by showing themselves worthy of launching initiatives, by developing a new professionalism in leading this dialogue process that elected democratic authorities well best consolidate their legitimacy. In saying that they lacked legitimacy, I simply wanted to show that unless elected local authorities show a willingness to grapple with a set of

issues with which they are not familiar, other forces and other actors could step in to fulfill this role.

While analyzing the relationship between oeconomy and democracy in the preceding chapter, I proposed ten questions that might be usefully debated. It would be fastidious to consider each in turn. I will keep them in mind here simply as background.

Everything begins by organizing a public debate: who are we? And who do we want to be? This is the point at which things become intelligible and when dialogue begins—two of an actor's three characteristics. The previous, foundational question is indeed: do we want to be an actor-territory? Are we prepared to give ourselves the capacity to analyze and to act? Do we have the political will, in the deepest sense of the term, to become this actor? The main precondition for a territorial community that aspires to become an actor is the acquisition of tools for observation and analysis. Can the community explain the four kinds of capital on its territory and the ways in which they change over time? Can it describe and measure how the territory mobilizes natural resources such as work and information? Does it have some grasp on the idea of territorial metabolism, i.e., of the ratio between used and usable exergy? How would it document the various categories of goods and services? Does it have a sense of which systems of governance are appropriate for each? The first step is a difficult one, for reasons mentioned previously: the information that a society has about its own functioning is itself a byproduct of current institutional arrangements and of the day-to-day operations of the organizations that fall under their jurisdiction. Consequently, real change requires an initial investment in new means of information and a new outlook. Without such investment, one locks oneself into the status quo, constructing a perspective on society that is bound up with past modes of thought.

In this book, I have tried to show that the cost of this initial investment can be reduced if one draws on the insights born from numerous critical perspectives that have surfaced over the past twenty years: ideas about alternative ways of measuring wealth, ideas about material flows, ideas about the difference between wealth and well-being, territorial analyses of entering and exiting flows, efforts to understand the nature of intangible capital, etc. But I would add that developing a preliminary understanding of territorial metabolisms is in itself a form of civic duty and should be seen as such: it associates all actors in the project of building a kind of database, relating to public purchasing, private consumption, or corporate monitoring of material flows. Democracy cannot exist without collaborative investigations.

In terms of strategies for change, this first step corresponds to the “awareness” stage. The new perspective—on the nature of capital, resources, the internal circulation of wealth, and the pitfalls of current systems of governance—results in the elaboration of a shared vision, the search for internal and external partners, and the identification of the first tasks to accomplish. This is the stage at which that foundational question that each community must ask itself is posed: do we want to be an actor? Do we have the will to take collective advantage of the potentials that the new globalized economy has to offer? Are the bonds uniting us, born from chance proximity, so tenuous and abstract that we would prefer to throw our lot with other levels or with groups with which we share philosophical, religious, ethnic, professional, or other ties? These questions are not only legitimate, but are unavoidable. To be answered, debate must be inclusive, fully incorporating the three social groups that globalization has created: those who are mobile and well-equipped to take advantage of new opportunities; those who are less mobile and qualified, who fear that they may be globalization’s losers; and those who are not mobile but are protected, who believe that the debate does not concern them.

In the course of elaborating a long-term vision, the problem of organizing work recurs constantly: in the ability of territories to alleviate social exclusion through territorial pacts; or, in the question the relative importance, in territorial oeconomies, of value added by familial and domestic work, of the social and solidarity economy, and of business in its more traditional form. The images used to illustrate the idea of exergy, such as the grandmother mending socks or farming managed according to a family man's principles, evoke, moreover, the ability of small, often family-based, human groups to make the most of their environment's resources. Here, too, an historical perspective helps free us from the twentieth century's false alternative between domestic and salaried work, an opposition reinforced by the ambivalence of salaried work itself, which at times is seen as emancipatory and at others as alienating. Thus any territory can create new perspectives and make its own choices as to how to allocate the three kinds of human labor.

I think we are headed towards formulas that combine different kinds of work. A recent dissertation<sup>228</sup> makes an argument that at first glance would appear paradoxical: it is in paraprofessional activities—work one does for oneself, helping others, even black market activities—that people are mostly like to feel pride in their skills and professionalism. Over the next few years, mixed forms of work are likely to proliferate: cooperative training; support for developing multi-purpose skills; creating workshops for sharing supplies; advice checks; associations of familiar work and professional work; the growth of self-employment or partial self-employment in the service sector, notably computer technology; and local exchanges. From the perspective of territorial oeconomy, the key point is that all these different forms of work can be placed on a single level.

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<sup>228</sup> Dominique Lefrançois, "Le parking dans le grand ensemble ," a doctoral dissertation in urban studies defended on December 7, 2006, at the University of Paris XII, Val-de-Marne.

On this basis, the vision and first steps can cut in different directions. To attempt to predict them would contradict the very method we are proposing. But let me at least mention the tools that this approach has at its disposal: redirecting taxation; organizing local currencies; developing intangible capital; redirecting public purchasing; defining precise goals for reducing the share of materials and energy in consumption; developing closer relationships with world territories that provide labor and resources that are incorporated into goods that are consumed locally and with regions that buy the territories' exports. The possibilities are endless.

In conclusion, let me mention a question for which I do not have a clear answer, yet which strikes me as essential: that of the relationship between collective and individual preferences. Our schizophrenia—i.e., the contradictions between what we believe as citizens and what we think as individuals—is apparent at every level. Robert Rochefort<sup>229</sup> emphasizes this point in several books, showing how if consumers are less passive now than during the golden age of mass consumption,<sup>230</sup> the contradictions between their attitudes as consumers and their outlook as citizens remain deep.<sup>231</sup> I don't think this can be reduced to the classic tension between one's heart being on the left and one's wallet being on the right. Consider two examples: organic produce and transportation. Clearly, we will only be able to create a sustainable society by accepting that a greater share of our budget be spent on food, thus showing our willingness to pay the price for preserving the planet. The option between consuming healthy products and vacations half-way around the world is an individual choice. On the other hand, the paucity and dispersal of organic farms, as well as the weakness of their gathering and distribution chains, increases their transaction costs and thus restricts organic

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<sup>229</sup> Rochefort is the director of Credoc (Centre de recherches pour l'étude et l'observation des conditions de vie, or the Research Center for the Study and Observation of Living Conditions).

<sup>230</sup> Robert Rochefort, *Le consommateur entrepreneur*, Odile Jacob, 1997.

<sup>231</sup> Robert Rochefort, *Le bon consommateur et le mauvais citoyen*, Odile Jacob, 2007.

produce to a niche market. The cost differential is great enough to make organic produce, a healthy food, too expensive for many families. Only a collective strategy aimed at supporting the development of organic farming chains and a partial reallocation of health expenditures in favor of healthy food (including group dining) will make it possible to restore a balance between our choices as citizens and our preferences as consumers. The same is true of transportation. I mentioned families who were placed in a difficult position when gas prices increased, as high housing and property costs in areas with good public transportation forced them to live far from city centers. It is difficult to reproach people in such situation for the gap between their (hypothetical) convictions and their practices. The approach of democratic oeconomy must be to broaden our thinking about collective preferences. More generally, oeconomic democracy must seek to reduce the contradictions that, in the case of work, create considerable anxiety for many of us. Thanks to the Internet, group purchasing is on the rise. What we still need is imagination, followed by imitation. Why not, for instance, imagine new kinds of partnerships between local communities, distribution chains, and citizens' groups as a means for determining collective preferences? We could then use the predictability of group purchasing to redirect our consumption. Why should it be producers and distributors who, through promotional campaigns, completely determine these choices?

## Chapter 6: Oeconomy's Institutional Arrangements

### 1. What Is an Institutional Arrangement?

The concept of institutional arrangements is at once familiar and new, self-evident yet vague. It is central to oeconomy's approach. In this chapter, I will begin by explaining the term and why it matters. Next, I will elaborate on the idea, to which I have alluded previously, that two institutional arrangements in particular will prove crucial in upcoming decades: global value chains and territories. Together, they constitute (to return to a metaphor used earlier) the woof and the warp from which oeconomy's fabric is woven.

The concept of institutional arrangements is both familiar and new. Robert Boyer's Régulation School<sup>232</sup> popularized the term to make the point that the real economy has little to do with the relentless competition of the market. Companies are social constructs; moreover, particular national roads to economic development (in Europe, for instance) depended on "institutional arrangements as varied as they are complex, and which guaranteed the existence and functioning of markets."<sup>233</sup> The Régulation School used the term not only to refer to the way in which companies are built, but particular to describe the relationships between the state, corporations, and unions—relationships that structure the space in which market economies develop. Though the idea is admittedly not new, the concept of institutional arrangement has remained a marginal one, while institutions with a more robust juridical status, such as companies, continue to attract far more attention.

In the previous chapter, in introducing the concepts of "collective living being" and "actor," I argued that we should redirect our attention from institutions to the many formal and informal configurations that structure our society, and particularly our economy. Companies, at least in their traditional form, are, legally speaking, associations of co-owners or shareholders whose sole purpose is to provide dividends proportionate to the risks assumed by investors (though, fortunately, this is only how things work in theory). As such, companies fall short of oeconomy's specifications. To bring them in line, we might pursue one of two paths. The first

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<sup>232</sup> See [www.theorie-regulation.org](http://www.theorie-regulation.org).

<sup>233</sup> *La lettre de la régulation*, September 2005.



consists of radically reforming the company's juridical status by reestablishing it on a new legal basis. This option must not be excluded. In an earlier chapter, I discussed the recent rebirth of social economy. It represents a desire on the part of employees and consumers for a more meaningful economic system. I have discussed the British CIC (Community Interest Company) initiative. This amounts to a new way of making using capitalist efficiency to achieve a goal that is somewhat worthier than higher dividends. Though I make no claim of being exhaustive, several other examples along these lines deserve mention: Germany's social partnership practices, in which multiple interested parties (which, historically, are usually employees) participate in corporate governance; American community foundations; Italian and Belgian non-profit associations, and so on. Consciousness of the inadequacy of the current juridical status of companies led the MEDEF, France's leading employers' organization, to put "non-profit capitalism" and "sustainable development" on the agenda of its 2008 summer retreat. But after consideration, I concluded that reforming the juridical status of companies was insufficient: we must invent institutional arrangements that are entirely new.

Secondly, the concept of institutional arrangement is self-evident yet vague. My definition of the term is self-evident: it refers to a set of actors and institutions and the stable relations that they establish with one another. But upon closer consideration, the concept has two different emphases, making it rich but also potentially confusing. In the first place, the idea of institutional arrangements calls attention to the underlying rationality according to which companies operate. This definition stems from governance theory. Governance's third general principle, after all, holds that a society must devise relevant and competent institutional arrangements. In my 1993 book, *Mission Possible*, I entitled one chapter: "Is Institutional Machinery Governable?"<sup>234</sup> This answer to this question takes the form of a slogan: "Everything that matters is in the kitchen." The question arose from my experience as a civil servant. I saw the extent to which bureaucratic departments are always inclined to pursue their own interests. I also witnessed firsthand how budgetary rules, public management, and relationships between different kinds of civil servants (from the most to the least important) structured the relationships between bureaucrats and society, time, and other bureaucrats. The notion of a "hidden curriculum," often invoked in educational affairs, is just as and perhaps even more relevant to other institutions. From these various observations, I concluded that each institution has its own

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<sup>234</sup> Pierre Calame, *Mission possible*, op. cit., chapter 6. The book can be downloaded for free at [www.eclm.fr](http://www.eclm.fr).

metabolism, its own *modus operandi*, a direction in which it is spontaneously headed. This is as true of companies as of many other institutions. For instance, I have often noted how the ambivalent and reciprocally frustrating relationships between a foundation's board and its permanent staff is often a crucial factor for understanding what a foundation is capable of achieving, independently of its legal status.

Institutional rationalities are governed by a few basic rules. These depend on the size of an institution's partner and its temporal outlook. It is, for example, extremely difficult for a large organization to work with many different smaller organizations. "Like attracts like": institutional milieus tend to be based on size. As for temporal outlooks, it is apparent that the extent to which an institution weights the long-term consequences of its actions also determines what it is capable of. The obsession with the short-run is not confined to companies. Like gangrene, it has poisoned society as a whole.

The corollary of the claim that every institution has its own a deep-seated rationality, is the thesis that, as a general rule, these rationalities determine institutional behavior far more than intentions. To demand of an institution accustomed to measuring short-term success and efficiency that it initiate a long-term transformation of itself is like asking a fish to swim. This is what I mean when I say that "everything that matters is in the kitchen. Lofty speeches—i.e., the will of the leaders—are made in the living room; but everything that really keeps the system running is found in the kitchen: mechanisms that are so modest and trivial that one barely even registers them, yet which, at the end of the day, determine the direction the institution takes.

On this note, I am reminded of another story, one going back to the very beginning of my career. In 1969, the the DATAR (the French government agency in charge of territorial management and regional action) commissioned me to study its effectiveness. I interviewed a number of DATAR's senior civil servants. At the time, considerable prestige was attached to stirring, abstract speeches. But if you looked a little closer, it was apparent that real power lay "underground," specifically in a decentralization committee which authorized companies to establish themselves in the Paris region (particularly corporate headquarters) in return for building industrial plant in the provinces. At the time, the geographer Jean-François Gravier's 1947 book on the "French desert" was something of roadmap for policy makers and largely guided the DATAR's efforts.

Similarly, World Bank policy is governed far more by the internal machinery that oversees the granting of loans than by the speeches of its leaders. When in 1999 the European Parliament asked me to evaluate cooperation between Europe and African and Pacific countries, I found further proof that the kitchen is what matters: existing procedures were the reason why it was impossible for long-term commitments to be honored, despite the good will of political leaders.<sup>235</sup>

The lesson is clear: governance, which is the art of regulating society and leading it in a particular direction, must invent institutions and institutional arrangements based on an underlying rationality that will guide society to its ultimate goal. Yet this is not how things usually work. Politics usually consists of backroom deals or speech-making, lending credence to General de Gaulle's famous remark: "bureaucracy will follow." The problem, though, is that bureaucracy does *not* follow. A major cause of our current political crisis is the repeated inability to reform the state. There are many reasons for this failure, but at least one is obvious: to change a bureaucracy's *modus operandi* and culture, one needs to show stubborn resolve for at least fifteen to twenty years. Yet this timeframe is out of sync with presidential and particularly ministerial terms. Both left-wing and right-wing ministers have told me: "We don't have time to really change things, so we just pass laws instead." A good example is the legislative "itch" that has only become more irritating during the presidency of Nicolas Sarkozy. Laws are really just declamatory speeches, intended to jumpstart change through the power of words alone. Yet it is often overlooked that in France, most laws obtain an application decree. Consequently, they are thus never applied. This is why, to make governance and democracy work, we must learn to conceptualize and implement institutional arrangements and to initiate long-term strategies for transforming those that currently exist.

But at a second level, the concept of institutional arrangements implies, as its name suggests, that we must look beyond institutions themselves. I recall, from my consulting days, a debate on "urban policy in the Paris region"—a discreet way of referring to policies aimed at underprivileged suburbs. Some said that the vitality of suburban social life could be measured by the number of civic associations. The shortsightedness of this statement is stunning: social life in such communities is mostly structured around communal, ethnic, and regional solidarities, as

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<sup>235</sup> Pierre Calame, *Mettre la Coopération européenne au service des acteurs et des processus de développement*, Éd. Charles Léopold Mayer, 1999. The report can be downloaded for free at [www.eclm.fr](http://www.eclm.fr).

well as around gangs, drug-trafficking, neighborhood relationships, and so on. A similar confusion of form and substance can be found in all realms. The concept of institutional arrangements is a way of affirming that we must concern oneself with the realities of economic life, in all their rich fabric. For instance in France, the implicit hierarchy of the professions, solidarity between alumnae of the same schools, and close ties between top civil servants and corporate executives are part of the fabric of economic life. But there is more. Take the example of multinational corporations. Officially, they have an “accounting perimeter” and are only responsible for what occurs within it. Yet in practice, as we saw in our discussion of legitimacy, corporate executives cannot deny their influence over their suppliers, with whom they have to build stable relationships. Remember the sinking of the Maltese tanker Erika off the coast of Brittany in 1999. From a strictly juridical perspective, Total, whose cargo Erika was transporting, had no legal responsibility for the sinking and the immense damage it inflicted. In January 2008, after a trial with many twists and turns, Total was fined a little less than 400,000 euros and condemned to share a fine of 192 million euros in damages with the Erika’s proprietor, manager, and classification company. The company appealed, on the grounds that the verdict was unjustified as far as it was concerned, since it had been deceived by false documents testifying to the tanker’s seaworthiness. Yet even so, Total accepted “immediately and irrevocably” to pay the victims the damages that the court determined! Total was undoubtedly delighted to get off so easily. Its reasons for appealing were purely jurisprudential: it did not want to establish a precedent that it is responsible for its subcontractors. But if its decision to pay damages was immediate and irrevocable (to use its own words), its because public opinion clearly considered the claim that such a large company was not in some way responsible for its suppliers to be untenable. In 2007, a different story made the headlines, involving toys manufactured in China. The quarrel between the United States, Europe, and China was over toys that had been designed in the West, specifically by Mattel. These toys were considered dangerous because they contained little detachable magnets that children had been known to swallow. They were also coated in lead-based paint. Recognizing the danger, Mattel immediately recalled 20 million toys and even apologized to China’s leaders, explaining that “87% of the recalled toys were recalled because of a design flaw and 13% because of lead-based paint.” A different, Canadian company tried to hedge its bets, claiming that it was not responsible for its subcontractors. This argument was a total flop. Similarly, the distinction between lasting

contracts, which create strong bonds between a company's employees, and the allegedly more precarious bonds with subcontractors or public services has no basis in reality.

These examples show that the system of production and exchange is founded on configurations of relationships of varying degrees of stability and formality, which bind institutions together while being transversal to them. Such a concatenation of relationships constitutes an institutional arrangement.

We must try to imagine concrete institutional arrangements that meet oeconomy's specifications. We must answer two questions: what will be the institutional arrangements of the future? And how can we ensure that they meet oeconomy's specifications? The answer to the first question is precise, while the second answer is necessarily more vague—for a simple reason: institutional arrangements can be prefigured and mapped out, but they can only be made real through collective invention and learning. I believe that as soon as our goals are clearly visible and widely shared, our imagination will be spurred and new solutions will be invented. They are dependent on technological change, so it is impossible to predict them. The important thing is that as a society we must agree to emphasize two sets of institutional arrangements: territories, which are the horizontal thread of the oeconomic cloth, and value chains, which are the vertical thread.

In the preceding chapter, I explained why territories will be the preeminent institutional arrangements of the future and why they form oeconomy's horizontal thread. Value chains must be the model for oeconomy's vertical thread, for similar reasons. Whether one is talking about bananas, cars, medicine, or computers, value chains refer to the entire process by which matter and energy are transformed, thanks to various kinds of capital, labor, information, and knowledge, into desirable and useful objects for our contemporaries. The latter consume, use, and deplete matter or energy more or less quickly, sending them back "home," whether by recycling them into raw materials or just throwing them away, dissolved into the atmosphere, transformed into heat, or thrown back into the ocean. This is life's great cycle; and we are part of it. "Remember that you are dust, and to dust you shall return." This is why we speak of the "lifecycle" of a product or speak of its lifespan "from cradle to grave." Oeconomy is only responsible if it is capable of lucidly managing the entire cycle.

Given their importance, I will devote a paragraph to each of these arrangements. But let us first consider the specifications they share.

## **2. The Specifications of Oeconomy's Institutional Arrangements**

Territories, value chains, and other institutional arrangements must all meet at least one common specification: what the language of governance calls “obligation to perform.” This obligation follows both from oeconomy's specifications and from governance's distinctive outlook.

A small picture is better than a long speech: consequently, these specifications are illustrated in a chart found in the annex.

I will limit myself to reiterating the key point of these specifications, offering concrete examples as needed.

First, the institutional arrangements of the future must simultaneously pursue governance's various *goals*: peace, social cohesion, and equilibrium between society and the environment. This means, among other things, that they must contribute to the fair and peaceful management of second-category goods (natural resources).

Secondly, they must obey governance's *principles*. These seemingly abstract statements do have practical implications. The articulation of different levels of governance requires, for instance, explaining how actors at each level of these institutional arrangements organize themselves. The fairness principle, for its part, stipulates that the distribution of added value and second-category goods be transparent. It also requires international rules governing how natural resources are distributed across different value chains. These rules constitute a veritable revolution in international law.

Third, these arrangements must *facilitate the management of relationships* and *have a long-term outlook*. These goals are linked: unlike transactions, relationships are built over time. This aspect of oeconomy's specifications obviously relates to the status of companies and the organization of the financial system. At the risk of getting ahead of myself, let me offer a few concrete examples. Over the past several years, studies have shown the resilience of family-based capitalism, which is oriented towards the long run, in the face of shareholder capitalism. This resilience was dramatically displayed in Germany in 2008, when it was announced that the auto-supply company Continental was likely to be bought out by Schaeffer, a much smaller

family company, while the giant Volkswagen corporation would be acquired by the dwarf that is Porsche. In oeconomy, as in politics, the long term is built through a succession of short-term actions. At a fundamental level, future institutional arrangements depend on what the Sherpa association, whose work on corporate responsibility I have referred to, calls “sustainable contracts.” This is a fortuitous expression. Contracts of different kind, ranging from employment to business contracts, must converge. Because they symbolize relationships, future institutional arrangements require new partnerships between actors. Territories and value chains provide the context for these sustainable contracts, but they also link territories and value chains to one another. The twenty-first century oeconomy will be based less on free competition between atomized and independent actors than on networks of relationships between actors of different kind: the various participants in a production chain, distributors, consumers, and so on. To take just one example: consumers are gradually abandoning their purely passive roles and becoming full-fledged participants in production processes. The ideas that consumption is a civic act and that we must jettison the schizophrenic “consumer-citizen” paradigm must be abandoned are starting to spread. In the future, we will no doubt go much further. Consumers will be full-blown actors in oeconomy’s institutional arrangements, even if the modalities according to which they will be represented remain to be determined.

In keeping with the focus on the long term, institutional arrangements must conserve and develop the four kinds of capital—material, human, intangible, and natural—that oeconomy mobilizes. Value chains and territories must contribute to preserving natural capital’s integrity. Logically, intangible capital is bound to grow, as it is in the very nature of institutional arrangements to foster cooperation between actors and the development of bonds, i.e., production’s “upstream” and “downstream.” Concerted training policies may also increase human capital. Conserving and the developing the four types of capital will entail a major shift in perspective. Finance is another factor that is crucial to the long-term perspective. In the final chapter, I shall return to changes in currency and finance. The principle of sustainable contracts between actors should allow the two great institutional arrangements, territories and value chains, to undertake long-term financing, which requires guarantees of stability. I think, for example, that the two pivotal institutional arrangements will enable a revision of Multilateral Agreements on Investment, which are more important now than ever. Ending negotiations to reach such an agreement, which the OECD had been conducting under the radar, was one of the

anti-globalization movement's early victories. It rightly denounced the dissymmetry between the two parties in negotiation. Governments were expected to commit themselves to not passing laws that compromised the anticipated profits from investments by foreign corporations. Corporations, in the name of the future; uncertainty, made no commitments. A contract creates a system of commitments. One can imagine more equitable long-term agreements between territories and value chains. Local productive systems, or clusters, which I spoke of in relation to territories, already prefigure these accords.

The fourth dimension is that institutional arrangements must support efforts at each level that foster a stronger sense of community. On a global scale, the goal should be to reinforce bonds between all the actors of value chain. This depends on increasing shared knowledge and the ability to trace work and raw materials throughout the production process. I will make several specific suggestions on this point.

Traceability brings us to the next item on oeconomy's list of specifications: allowing people to reconcile their beliefs and their actions. This cannot occur without traceability, which allows people to put their activities as producers, distributors, and consumers into perspective.

Oeconomy's fifth specification simultaneously seeks greater unity and greater diversity. Unity was supposed to be characteristic of companies, while diversity was to be found either in relationships between companies or in products that were offered to consumers. Yet this is not the case. The unification of production processes is being achieved through the overwhelming trend towards normalization. The "war over norms" is, moreover, a major front in economic wars: from terrestrial digital television to accounting or juridical norms, it is one of the major battlefields in the conflict pitting the European Union against the United States, as much as in the battle between Airbus and Boeing. On the other hand, large companies have learned how to create autonomous pockets within their fold and to diversify their products and structure to make themselves more adaptable to different contexts. We are only at the beginning, I believe, of a major turning point in our conceptions of unity and diversity. As far as unity is concerned, the transition from a consumer to a user society will accelerate the trends towards normalization, with the establishment of standards of interoperability between product parts that will apply to all the actors in a value chain. The necessity of recycling will also play a role in this process, as the European directive on recycling old cars indicates. As for diversity, the first industrial revolution and Fordism helped make the technological process of production, the assembly line,



immortalized in Charlie Chaplin's *Modern Times*, the company's unifying principle. This was the culmination of the historic trend toward the consolidation of time and daily rhythms, which began during the Middle Ages when the belfry—the time of towns and merchants—challenged the church's bell-tower—the time of God—and the parceled nature of feudal society. It continued with the introduction of the clock. “The clock is not merely a means of keeping track of the hours, but of synchronizing the actions of men. The clock, not the steam engine, is the key machine of the industrial age.”<sup>236</sup>

The centerpiece of the new industrial revolution is not machinery, but knowledge, information, and the ability of individuals and collectivities to coordinate their work. The outsourcing of production and maintenance, nomadic offices, workdays distributed across several locations (including the home), smaller workplaces, flexible hours: these developments are all related. They belong to the same process that leads to the convergence of work contracts and commercial contracts. As I have said before, value chains and territories are destined not to become hierarchical monoliths, but rather broad confederations of actors, unified, as in all forms of governance, by an ethos of and procedures for cooperation.<sup>237</sup>

Oeconomy's sixth aspect is the need, on the part of institutional arrangements, to ensure that actors behave responsibly. However great the obstacles may be, global value chains and institutional arrangements must be subject to international law and tribunals. The responsibility principle demands, moreover, the protection of the rights and duties of whistleblowers. Currently, whistleblowers typically face a dilemma: if they blow the whistle, they not only risk angering their bosses, but coming across as traitors to their coworkers. If responsibility is generalized and placed at the level of institutional arrangements rather than individual actors, this dilemma (an intractable one, to be sure) can be minimized if not entirely eliminated.

The seventh aspect is that institutional arrangements must contribute to making the world intelligible. This theme has returned in chapter after chapter: our picture of the world is shaped by information that institutions disseminate as part of their ordinary operating procedures. If one had any doubt, one has only to listen regularly to the news of the stock market's ups and downs. When discussing territories, I spoke of the veil of ignorance hiding how our world really

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<sup>236</sup> Quoted by Jacques le Goff, in “L'Occident médiéval et le temps,” in Le Goff, *Un autre Moyen Âge*, Gallimard, 1999.

<sup>237</sup> Governance's “tripod” is presented in my book, *La démocratie en miettes*.

operates, as our economy and institutions ply us with endless information that shapes how we see the world but prevents us from understanding it. This is why the question of the information flow produced by a given institutional arrangement is far from being an abstract or irrelevant question. Oeconomy's institutional arrangements must for example generate on a daily basis knowledge of the energy, natural resources, work, and information they consume, in addition to knowledge of the various kinds of capital they deploy, of the bonds created through production and exchange systems, of the distribution of added value, of the amount of exergy employed, and of the kinds of relations existing between different actors.

Making the world intelligible is essential to protecting oeconomy from the trend whereby, because of globalization and its aspiration to being an objective science, it increasingly distances itself from democracy. If we want our citizens to be capable of grappling with oeconomic questions, we must at least ensure that these questions are intelligible.<sup>238</sup>

The eighth and final point on oeconomy's list of specifications is that institutional arrangements must be consistent with the governance systems that are specific to each category of goods. One might call this an oeconomy that is consistent with the nature of things.

### **3. Global Value Chains and Value Chain Agreements**

Global value chains<sup>239</sup> that connect production, exchange, and consumption (all of which are equally important to the definition of a "chain") will be the major institutional arrangement of the global era. They are, at it were, oeconomy's spine.

This notion of "value chains" stems from the idea that human activities are organized around the production, exchange, and consumption of goods and services in a limited number of sectors. For the most part, these sectors can be accounted for by referring to household budgets; they correspond to the various needs and desires people must or would like to satisfy: food, housing, transportation, clothing, health, leisure, and tourism. These primary value chains are naturally hybrid, combining goods and functions. This is the case, for example, of health. Its material element—the production of medicine—is a sub-branch of chemistry (pharmaceuticals)

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<sup>238</sup> H. Rouillé d'Orfeuil, *Économie, le réveil des citoyens*, La Découverte, 2002.

<sup>239</sup> *Translator's Note*: "Chain" or "Industry Chain" are the translations that have been used for the French term "*filière*." *Filière* has several meanings, including "industry" (in the sense of a totality of economic activities that all relate to single product, like "the housing industry"); a series of terms evoking the idea of "string" or "strand"; and the notion of a succession of interrelated steps.

but its most important dimensions are medical care, food, and living conditions. In addition to value chains satisfying the needs of individual and familial consumption, there are a number of economic activities that serve collective functions or that constitute groups of professionals, and which are so important to the production process that it is worth treating them separately: these include defense industries, public works, information technology, banks and insurance, and the industry of intermediary goods (primarily the production of machines).

One could quibble forever about the precise characteristics and breakdown of value chains; this, however, is not the purpose of this book. Rather, I suggest that we focus on the first category of value chains, aimed directly at satisfying personal and familial needs.

A value chain is a totality of actors and of the relations between them. These actors may be producers, contributing to the transformation of raw materials into useful products; distributors; consumers; and, once this cycle has been completed, anyone who recycles the ensuing waste. The basis of a value chain is thus a complete cycle of goods and services. This is the cycle that must be organized according to oeconomy's specifications.

Is this a utopian or futuristic vision? Not really. I would first like to show that these ideas are merely the extension and systematization of numerous transformations that have occurred over the past several decades: the transformation of systems of production; transformations resulting from the priority given to sustainable development; transformations resulting from the mobilization of consumers; and, finally, transformations resulting from the increasing standardization of production and of products.

### *The Transformation of Production Systems*

The story of globalization is not about gigantic firms and their “integrated” production systems, where the firm organized itself all the stages of the process, from the acquisition of raw materials to distribution. These great integrated systems, hierarchical and centralized, which one might describe as “Soviet-style”, have revealed themselves—despite the hypothetical economies of scale that they entailed and the efforts of the dominant actors to preserve every bit of added value—poorly adapted to the complexities of value chains and to the diversity of markets. During the 1960s, there was a growing consciousness of the great rigidities of this “big firm” system, and thus of their meager prospects for keeping pace with the evolution of technology and markets. And, as there were no global monopolies in any industry, not even in the most

concentrated ones, there were few opportunities to compensate inflexible organization forms with monopoly advantages, as it might have been the case on the national level.<sup>240</sup> On the contrary, economies of scale and specialization should be acquired through flexibility, through recourse to specialized subcontractors working for various producers.

Consider, for instance, speed boxes in cars or microchips in computers. In the eighties, the same large companies that were tempted twenty years earlier by the idea of downstream and upstream integration began to hold the opposite discourse, refocusing themselves, as they put it, on their “core business.” How far could the specializing and streamlining of company structures go? What exactly does “core business” mean? Given that even “core business” came to include marketing, research, and development, at what point does the ability to organize entire value chains become elusive? At what moment, either upstream or downstream, will subcontractors or clients become so powerful that, taking this reasoning to its logical conclusion, they seize control? These were the questions that plagued companies and consultants for years. In the United States, the obsession with reducing fixed costs and profiting to the hilt from the comparative advantage of producing in low-income countries (where unions were not a risk) created the “outsourcing” model. At the same time, the concept of “hollow corporations” sparked a lively debate. The former head of Xerox, Paul Strassmann, gives us a general definition of this term, referring to companies “organized around the management of their transaction costs, as well as of their research and development expenses.”<sup>241</sup> When brand name becomes the only argument for buying, the risks that such a strategy entails become evident.

Some consequences appeared very quickly. Microsoft grew because IBM had no desire to develop its own operating system; then, Microsoft swept past its mentor. Similarly, in producing personal computers, Dell ended up supplanting older producers. The concentration of the distribution in the hands of a few large chains of stores and supermarkets, of which Walmart in the United States and Carrefour in Europe are the most successful, allows them to develop their own brands and thus claim a greater share of added value. What is certain in any case is that unlike in the fifties, no single company can dominate an entire value chain—though a pivotal actor who organizes the flow of added value in a way that allows it to control the entire chain is

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<sup>240</sup> The Chinese economist Chen Ping demonstrates convincingly that the difference between the evolution of the Russian and the Chinese economies after the fall of the Berlin Wall is that the Russian economy was structured into monopolies, whereas the Chinese economy was not. Chen Ping, “Complexity of Transaction Costs and Evolution of Corporate Governance”, in *The Kyoto Economic Review*, December 2007.

<sup>241</sup> See [www.strassmann.com/blog](http://www.strassmann.com/blog), commentary posted in February 2005.

conceivable. This transformation of production systems has necessarily led companies to shift their attention to value chains.

### *The New Priority: Sustainable Development*

Recently, this trend has been followed by a growing preoccupation with sustainable development and climate change, and thus with the use of natural resources and energy. Since the UN Earth Summit of 1992, we have seen more and more debates around the world about the production and consumption systems. This theme was put forward at the tenth anniversary of the Earth Summit in Johannesburg in 2002. What became known as the “Marrakech Process” aims to understand the system in its totality. The European Union, notably under the influence of the British and the Germans, made this question one of the priorities of the sixth research program (2005-2008), which gave birth to the program known as Score (Sustainable Consumption Research Exchange). This program involves more than twenty universities and research centers, primarily from Holland, the Scandinavian countries, Germany, Austria, and the United Kingdom. This program reflects the increasing preoccupation of officials with responding to the imbalances that lead to excessive consumption of natural resources, particularly in developed countries. These excesses, as we have seen on several occasions, are a great danger as much for the ecological imbalances that they produce as for the rivalries between newcomers that they exacerbate. This is particularly true of the struggle between China and India to control the increasingly scarce natural resources. But it is important to note that all this research emphasizes value chains, either implicitly or explicitly. The value chain is in practice the level at which the flows of raw materials and the life-cycle of products can be analyzed. This is the second reason that value chains have become a part of our daily lives.

### *The Organization and Motivations of Consumers*

The third reason pertains to consumers. As they became better organized and more engaged at an international level, they are able to demand sustainability labels for forests, fishing, fair trade, and sustainable agriculture. These labels necessarily apply to value chains. Consumer pressure introduced a new factor into the international regulation of value chains: multi-party negotiations. Consumer organizations and environment protection movements invited themselves to sit down with the top players, insisted on being treated as interlocutors, and

often became even more important than states from the standpoint of companies, as the impact of consumer organizations and activists on their sales and profits is often far greater and more immediate than restrictions imposed by states. These restrictions, given the power dynamic between states and multinational companies, are always potentially negotiable in terms of their character, their implementation, and the sanctions that they entail.

### *Standardization*

The fourth transformation is a result of the growing importance of standardization. I spoke, in relation to the concept of a “functional economy”, of interoperability standards as a new public good.<sup>242</sup> Here, too, we did not start from square one: this idea is part of an ongoing transformation. The development of ISO standards is particularly interesting. They play an essential role in the economy. They are hybrid, collective, living beings—and quite unusual ones. Everyone has heard something about ISO standards. They establish the basic characteristics of a product, fulfilling in this way an essential role in international trade, where it is important to have a few basic certainties about the products one is dealing with. The history of the ISO (or International Organization for Standardization) is told very well on its website, which I recommend to the reader.<sup>243</sup>

The ISO was born in 1947, during the great wave of institutional innovation that occurred immediately after the war. Its purpose was to unify industrial standards at an international level. The history of standardization is so old, and so deeply tied to the history of nations and industries, that we rarely even think of it. At its origins, it was all about bolts: specifically, about the need to agree on the geometrical characteristics of screw threads. Standardization arose thus both from a need for compatibility between industrial products and units of measurement. If you have ever traveled with an electric socket adaptor, the kind that allows you to plug in your cell phone or computer in China or the United States, then you have some sense of standardization’s advantages. The same is true for those who, like me, find it difficult to convert Fahrenheit into Celsius, pounds and ounces into kilos, inches and feet into meters, and so on.

As a general rule, states establish public institutes for standardization. However—and this is standardization’s second original trait—these standards are not constraints. They cannot be

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<sup>242</sup> Part 1, chapter 4, paragraph 4.

<sup>243</sup> See [www.iso.org](http://www.iso.org).

elaborated without industrialists themselves. The ISO has, as a result, a long tradition of multiparty negotiations and consensus-seeking. Companies naturally flock to standards once they are established: first because they often participate in their creation, and second because it is risky for them to do otherwise. This is the same problem—well known in the computer business—that one faces with operating systems. There are today 17,000 different ISO standards—which demonstrates just how vast field of economic activity this approach covers. And it was only in 1970 that international standards replaced national ones.

As I see it, standards and value chains are the most painless but also the most efficient way to interfere in the affairs of a sovereign state. It is interesting, however, how much standards have changed since the late twentieth century. At first, standards related to technical specifications and specific products. Slowly, they began to apply to entire production processes, and even to corporate management. These are the famous ISO 9001 and ISO 14001 standards, which were the outcome of a long-lasting project. ISO 9001 was adopted in 2000. It applies to quality management systems. They are the result of an insight developed over the past few decades that a product's quality is best ensured not by testing it at the moment of completion, but by verifying the quality of work at each stage of production—a standard that is often called “total quality.” Based on this insight, standards have become an important element of corporate life. In 2006, 900,000 companies throughout the world had already adopted ISO 9001.<sup>244</sup> ISO 14001, adopted in 2004, goes a step further, as it affects the entirety of a company's environmental management. By 2006, 12,900 companies throughout the world had adopted it.

It goes without saying that the development of standardization is directly related to the explosive growth of international trade: the adoption by companies of these standards is critical to gaining access to markets, particularly in developed countries that have the means to formulate requirements in terms of quality without this stipulation being perceived as an obstacle to free trade. Regulations to be put into effect at the level of value chains are, in the end, only extensions of a dynamic begun in the postwar period. Moreover, a standard is actually being prepared, known as ISO 26000, on the social responsibility of companies. Its principles are similar to our own.

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<sup>244</sup> Source : ISO Survey, 2006.

Four major changes are thus underway: a transformation in production systems; the rise of sustainable development; greater engagement on the part of consumers; and the increasing importance of standardization. Together, they suggest that broader reflection is needed on the institutional arrangements that tomorrow's value chains will require.

These arrangements can be considered from two angles: the way in which they can satisfy requirements described in the previous paragraph; and the way in which public action can contribute to establishing these institutional arrangements' normative framework. I will begin with the first point. My aim, in outlining these proposals, is not to close the debate but to open it, by illustrating how the general requirements of institutional arrangements can be concretely put into effect. My proposals are summarized in the chart found in the annex.

The first idea is that a value chain brings together into a lasting relation the totality of actors involved in production, distribution, and consumption. A value chain agreement is arrived through forums involving many different actors. Examples of these kinds of forums in recent years include the use of the Internet for purposes of governance and multi-actor negotiations over labels. A multi-actor forum has, for instance, been established for the production chain related to bananas, the most commercialized fruit in the world.

Consumers organize themselves primarily within certain limited territories, mostly on national or local level. Thus a value chain not only links producers to one another, it also ties companies to territories. These territories can be either geographical areas in which consumers organize themselves or components of a value chain. When an agreement relating to a brand is signed, the brand's owner is the pivotal actor and assumes primary juridical responsibility. Accountability is nonetheless shared by all actors, including distributors. A parallel could be drawn between the responsibility of distributors and the managerial responsibilities of Internet servers: at issue is whether they are simply hosts, with no responsibility for the messages that transit through them, or if they are editors, and thus have to answer for the material they publish.

Value chain agreements stipulate, in keeping with the principle of accountability, that these commitments apply not only to the officers of signatory institutions, but to all of its personnel. In this way, value chain agreements apply in a generalized way companies' codes of conduct to the entire value chain, but adding a new and essential point: they are accompanied by the requirement that each actor to sound the alarm if an employer fails to respect the value chain contract. In effect, as the International Initiative for the Social Responsibility of Upper



Management<sup>245</sup> has noted, the exercise of responsibility depends on a hierarchy of loyalties. Under these circumstances, loyalty to value chain agreements must override the obligations of loyalty and professional secrecy owed to an employer.

Next, value chains contribute to building global consciousness in three ways. The first and most important involves the traceability of production. It might be difficult to give detailed information about the various actors of the value chain on a product's package, but it is relatively easy, with the help of computer systems, to make information relating to each production batch available to distributors, who can then display it. This is, in short, the complete opposite of those vague labels that say "Made in the European Union" or "Made in France" (when in fact, the shirt buttons alone were sown in France) which only reinforce the sense that ours is an age of suspicion.<sup>246</sup>

The second idea is to publish every value chain agreement on a website, where exchanges between producers, distributors, consumers, and territories can occur. The very rapid development of social networks creates new cultural practices that can be made to serve traceability, by making the presence of the value chain's partners felt at a very low cost. These websites can also be the means through which each full-fledged member of the value chain may exercise its right and duty to alert. This system of exchange could be completed by annual assemblies, convened in part at a distance by the means of online open forums. A new generation ISO standard lays out the modes of production, distribution, and usage of a branch's product. Respecting this standard is incumbent not only on producers, but also on distributors and consumers living in specific territories. It lays out in particular the future of products that are approaching the end of their lives; how they are recycled is decided collectively by the actors of the value chain and by territories concerned.

The implementation of value chain agreements should be recorded in every company's annual report. Naturally, these reports include consist of bookkeeping as well as social and environmental data, the reporting of which have become obligatory in countries like France. But rather than being a unilateral statement, the report is a commitment on the part of all the actors of the value chain. It notably includes an analysis of the product's entire life-cycle, including its

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<sup>245</sup> See [www.responsabilitesocialesdescadres.net](http://www.responsabilitesocialesdescadres.net).

<sup>246</sup> Nathalie Sarraute, *The Era of Suspicion*, Gallimard, 1959. The expression is often used these days to denounce the surveillance of citizens by the state, but it is also valid for describing the relations between producers and consumers.

consumption. Furthermore, it describes the flow of materials, labor, and money within the value chain and evaluates the energy use. On this basis, it analyzes the stages of reuse of various products and sub-products, all the way to the final waste. The use of the annual report is determinant. It is a space of collective learning. The collected data raises questions that flow in both directions: from consumer to producer, but also from producer to consumer. The report records what has been learned over the year, analyzes a series of experiences, and draws lessons. Each participant is entitled to request the immediate verification of assertions made in the annual report.

Every three years, a multi-actor, multi-territory, and multi-chain meeting would take stock of the process. In particular, it would address the issues that concern all territories and value chains: the methods for analyzing flows and concrete applications of the principle of accountability. A value chain's actors may also agree on private procedures of arbitration. This is an extension to a multi-actor approach of the arbitration methods provided in numerous commercial contracts.

Value chains, in keeping with the principles of governance, must ensure the highest degree of both unity and diversity. To this end, the ISO standard of a specific value chain, in keeping with the principles of a "functional" economy, of modularized production (i.e., the possibility of breaking down a product into independent components, allowing it to be replaced or repaired piece by piece), and of the interoperability of products of different brands. Territorial actors should be entitled to request, directly or through distributors, that the principle of interoperability be honored, at least for products delivered to that territory. The implications of creating networks of territories are apparent. Similarly, negotiations can pertain to the creation, at the level of a territory or of a group of territories, of production intermediaries shared by different brands, or intermediaries for the reconditioning or reuse of certain products.

The reciprocity clauses in major export contracts are well known. Let's take the case of import substitution policies, commonly practiced and frequently debated in Latin American in the 1950s. Besides the fact that they were contrary to liberal dogma and were disliked by the United States, they were accused, sometimes rightly so, of being inefficient, either because they led to subsidized monopolies or because domestic markets were too limited for these production units to develop. In comparison, agreements between producers and territories would be more

appropriate, as the territories would not be in a position to impose on their residents a purchasing monopoly.

Moreover, technical change favors smaller but more sophisticated production units. As economists used to say, we have entered a post-Fordist era. Twenty years ago, Volvo attracted the world's attention with its flexible workshops, which contradicted the principle of the division of labor popularized by Taylor and Ford. It is not hard to imagine what the results could be if a genuinely imaginative technical and organizational effort was channeled through value chain agreements. Such a movement would also be facilitated by the gradual technological unification of major world regions. My hypothesis is that thirty years from now, the division of labor between "noble" functions, requiring a high level of knowledge and qualifications, and simple production functions, which twenty years ago were known as "screwdriver factories," will have blurred considerably.

Following this observation, should we say that we are heading towards a contraction of international trade? Today, trade for the most part occurs between developed countries, allowing a great variety of goods and services to be exchanged. If there is a contraction of international trade, it will result rather from the rise of energy and transport costs, but only when the latter represent an appreciable part of total energy costs. At this level, it is important to be suspicious of the "obvious." Those who want to prove that our current model of production and exchange is unsustainable often multiply the quantity of transported goods by the number of kilometers traveled. But they tend to forget the extreme variability of the energy cost per kilometer-ton. If one measures the energy efficiency of transporting a ton of merchandise with a kilo of petrol, the actual efficiency rate ranges from 6.7 kilometers travelled for light urban vehicles to 60 km for vehicles of 30 tons and 230 km for entire trains. We jump from nearly one to ten between a light urban vehicle and a thirty-ton truck, and then by four between the thirty-ton truck and an entire train. Energy efficiency is lower still when customers use their own cars.

In what will perhaps be the last period to have known abundant petrol, customers do not hesitate to travel forty kilometers or more to shop at giant hypermarkets. In 2008, the large French retail chain Carrefour saw sales at its domestic hypermarkets plummet. It knows that it must reinvest in nearby stores. Moreover, the bundling of Internet orders has only just begun. By engaging in production and consumption at the same time, a value chain makes it possible to prepare the kind of comprehensive vision that today is lacking. A study of the Wuppertal

Institute from the late nineties demonstrated that in Germany, the ingredients of a simple pot of yoghurt—a banal product if ever there was one, and one that is easy to make at a local or familial level—traveled thousands of kilometers in total. The research that the Institute has since conducted on the food industry chain has shown that the energy costs of the production of intensive agriculture and of the transformation of products was, in reality, considerably greater than transportation costs.

Value chains—this is the third idea—must strive for long-term efficiency and facilitate the management of relationships. Value chain agreements imply lasting contracts between their various participants. On the production side, this may not be a radical innovation: a company that is concerned about the reputation of its products is always led to control the quality of its suppliers and subcontractors, and this is not possible unless it builds relationships of trust, which take time to develop. The relationship between a value chain and territory is, however, of a more recent kind. It requires imagination, particularly between producers and distributors on one hand, and territories and users on the other. At the territorial level, I raised the question of whether and how collective preferences—generalizations of contracts that have been grouped together—might be expressed. It is probably not possible, either in the short or medium term, to restrict consumer choice by requiring them to commit to particular products over an extended period. But territories can take advantage of the “law of large numbers” and of the publicity generated by a value chain agreement, with all that this implies, for instance, in the way of price discounts on or after-sales service. The importance of after-sales service in domains as varied as automobiles, computers, plumbing installations, or home appliances is well-known. There is thus substantial room for negotiation as far as medium-term commitments go.

In terms of value chain agreements, one can also imagine long-term commitments consisting of multilateral agreements on investments, which balance out the commitments of territories and other concerned parties in the value chain.

Finally, my fourth idea is that a value chain contract should explicitly seek to preserve and develop different types of capital, particularly natural and intangible capital. The very nature of the relationships formed between the actors in a value chain increases intangible capital by strengthening multi-actor cooperation. The contract also must require respect for the governance rules of the various categories of goods (as they have been presented above).

I turn now to the second question: how can public authorities facilitate, encourage, and hasten the implementation of value chain agreements and this new kind of institutional arrangement? I have again drawn up a chart (see the annex) that lays out the possible paths, simply by replacing the “conditions that make institutional arrangements relevant” with “means of governance”.

In a summary fashion, I have identified seven courses of action available to public authorities. Besides the implementation of institutional frameworks, public authorities can act directly on public investment, notably by participating in the establishment of production units, by orienting public procurement (for example in the realms of public catering service or computing), and by the development of public services (for instance, public transportation or recycling systems). Public authorities can also act through taxation. They can act through law and regulations, by organizing democratic debate and by establishing collective choices, and, finally, by coordinating the actors.

Public investments and the development of public services concern, as a matter of choice, territories or nations. It is at this level, as things now stand, that most taxes are collected and used, offering public authorities a means of acting. Public procurement is organized at the territorial and national level; regulations might limit the right to compete to companies that have signed value chain agreements. This is already the practice in many domains, thanks to ISO standards. In Europe, existing procedures for cooperation can play an extremely efficient role in organizing cooperation between member states. Given the European Union’s commercial importance, it is not hard to imagine the impact that recommendations on specifications for public procurement in EU would have. Imagine for a moment the impact of computer orders stipulating that all material purchased must use freeware, or car purchases requiring firms to be signatories of value chain agreements with clauses concerning the replacement and interoperability of parts!

Taxation must, for its part, play a decisive role. Is this compatible in the short and medium term with global governance’s weakness, with the fact that there is no world community with its own fiscal powers (even though the need for a fossil fuel tax is obvious to all)?

I am rather optimistic regarding the long run—provided that one proceeds in two stages. At the first stage, one must recognize that an equilibrium between humanity and the biosphere, in particular regarding the management of first- and second-category goods, constitutes an

imperative norm of international law, a *jus cogens*.<sup>247</sup> A *jus cogens* is a kind of super-norm with universal application, introduced in 1969 by the Vienna Convention on the law of treaties. It is, in a way, a return to an idea that was dear to the Age of Enlightenment, that of “natural law,” a law arising from the “nature of things” and imposing itself on this basis on all societies. Is this not the very kind of norms that must impose themselves if we are to protect humanity’s heritage and future generations’ access to it (i.e., first-category goods) and to ensure that all human beings have a minimum access to natural resources (i.e., second-category goods)?

If the idea of *jus cogens*, as applied to first- and second-category goods, imposes itself at an international level, in a more or less distant future states and regions will have to adopt juridical and fiscal mechanisms guaranteeing that these legal provisions are implemented. I have specifically three mechanisms in mind. The first extends from the local to the global, and assigns to each individual, and, on this basis, to each territory, nation state, and region of the world, negotiable quotas that correspond to the minimum rights of access to second-category goods. I also have in mind two forms of taxation at the national and territorial level. The first, already mentioned in relation to territories, is a gradual shift from a value-added tax (TVA) to a consumed-resource tax (CRT), which would stop fiscally penalizing work and encourage the optimal utilization of materials and, in particular, natural resources. The second would be the creation of a tax on unused energy, which would create incentives for optimizing a value chain’s input locations. As I have been emphasizing, the additional appeal of fiscal mechanisms is that they imply measurement devices that can generate knowledge of flows that today are poorly known at the value chain level.

Public authorities can also act by establishing rights and regulations. I have in mind the controversial question of intellectual property, and especially of patents. Public authorities already have, according to current law, the possibility of imposing compulsory licensing on patent-holders: it takes the patent-holder’s place in allowing another producer the right to use a patented technology. This mechanism is aimed first of all at fighting uncompetitive practices, as when a producer who holds a patent refuses to cede the usage rights or attaches to the cession unreasonable financial conditions.<sup>248</sup> This example shows that, once the value chain is

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<sup>247</sup> I am borrowing this definition from the Wikipedia article “*Jus Cogens*,” as well as from the commentaries by Dominique Carreau in *Droit international économique* (Daloz, 2007).

<sup>248</sup> See Juris International, “Organisation mondiale du commerce”, “Centre du commerce international,” on the theme “*licence obligatoire*” (compulsory licensing): [www.jurisint.org](http://www.jurisint.org).

recognized as an important means for building a sustainable society, legislators will not lack the juridical means to achieve value chain agreements. This is all the more true insofar as, presuming my reasoning regarding fourth-category goods is correct, intellectual property law will have to change profoundly in upcoming decades.

The final means of action that public authorities have at their disposal concerns the coordination of actors. This domain is undoubtedly one for which international institutions are uniquely suited. Let me mention four instances of such action. First, we can consider yet again the International Organization for Standardization (ISO). It is the first in line. The evolution of standardization, over the last fifty years, has broadened its horizons. The elaboration of standards that are characteristic of sustainable chains, taking account of the traceability of flows and of work throughout the production process, belongs to this trend, even if it involves a qualitative leap. The historical experience of the ISO in consensus-building between actors is irreplaceable.

The second potentially relevant international institution is the World Trade Organization (WTO). Let us not forget that its preamble refers to sustainable development as a goal. The WTO, contrary to the GATT, which it replaced, does not have as its statutory goal the elimination—always, everywhere, whatever it takes—of barriers to international trade. I have already suggested in preceding chapters that the WTO might be summoned in future decades to play a much more progressive role than it currently does. As it is, the WTO is the only international organization that has the means to deal with disputes and that has developed a recognized practice in this domain. It is true that, until now, the WTO has only dealt with disputes between states. The qualitative leap involved in treating disputes relating to the implementation of value chain agreements is not, however, that great.

Finally, two organizations could play a complementary role. First, the United Nations Conference on Trade and Development (UNCTAD), created as a consolation prize after the failure of the International Conference on Trade and Employment in Havana in 1947. It continues to seek a role, and it could find one as a forum in which experiences in implementing value chain agreements could be compared. Finally, Global Compact, started by Kofi Annan, could, if its members could be convinced, constitute a powerful lobby for gradually establishing industry branch agreements.

#### 4. Territories and Territorial Oeconomic Agencies

In the preceding chapter, I tried to lay the philosophical and technical basis for territorial oeconomy by demonstrating its preeminent role in the globalized system and by analyzing in detail the way in which territory-actors could organize the mobilization of capital and resources, provide optimal management of exergy, and establish systems of governance for the different categories of goods. I also showed why the organization of territorial oeconomy, far from lying outside the realm of local democracy, should become one of its primary concerns. Finally, I considered several means, which at this point are quite familiar, of implementing territorial oeconomy, such as building data, redirecting tax policy, establishing a local currency, and so on. But I left unaddressed the question of the kinds of arrangements that must be invented at the territorial level, simply noting that it was necessary to distinguish local government's areas of competence from the arrangements that are in a position to impact the oeconomy. This is what I will now attempt to do.

An arrangement requires an architect, a pivot. In the case of territories, this does not mean creating a single oeconomic actor—i.e., a sort of armed branch of the state. This would contravene the principle of unity and diversity, particularly since territories are the locus *par excellence* of a pluralistic oeconomy—that is, of the cooperation and cohabitation characteristic of the traditional oeconomy with the social or solidarity oeconomy and the volunteer oeconomy. I propose that we call this architect the Territorial Oeconomy Agency, or TOA. I do so with the same reservations that hold for value chains: while it is possible to indicate a course of action and the specifications that must be respected, actual institutional arrangements arise from creativity and collective learning processes. This reservation is all the more important in that territorial institutional arrangements, as one sees in the case of public services, vary considerably from one country to another. Even so, I believe that conceptualizing a Territorial Oeconomy Agency or TOA makes it possible to consider these issues concretely.

From a juridical perspective, the British Community Interest Company or CIC corresponds perfectly to what I have in mind. I have praised its pragmatism<sup>249</sup>: a commercial or production-based company like any other, but working on a not-for-profit basis. Its capital is blocked at least for a certain period of time and the dividends it offers its shareholders may not exceed 5% of total capital.

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<sup>249</sup> See Part, Chapter 3, section entitled “Legitimacy Implies the Principle of ‘Least Possible Constraint.’”



The creation of CICs would be a juridical extension of the political process whereby various institutions and networks decide that they will constitute themselves as territory-actors. Each actor's contribution of capital commits it to a cooperation pact, which I have described as "undertaking a project," a critical moment in the actor's self-definition. To analyze in greater the institutional arrangements that might ensue, and of which the Territorial Oeconomic Agency is only the pivot, I created, as I did for value chains, two diagrams: the first lays out the conditions under which institutional arrangements are relevant, and the second describes the initiatives that governmental organizations must undertake, at a European, national, and local level, to make these arrangements possible. These diagrams can be found in the annex.

As many of these ideas were already presented in the chapter on territories, I will limit myself to flagging them down as they are mentioned.

When introducing the idea of a Territorial Oeconomic Agency, I spoke of the role of "architects." The role of such an agency is not to do things itself, but indeed, to create synergy between a series of initiatives. I will begin with the idea that it must facilitate the management of relationships. The TOA's primary purpose is to develop a territory's intangible capital and thus the relationships between various kinds of actors. This presupposes that it must first describe and map out intangible capital, i.e., cooperation-based relationships that already exist between a territory's actors and those which are in need of further development. But the task of developing relationships is not only internal. It is also directed at the outside, in two ways. First, it must target other, similar agencies. Oeconomy must be consistent with the principle of active subsidiarity. Within a particular territory, the TOA may divide itself into smaller agencies that agree to common goals and share experiences. A territorial AOT, in turn, will belong to a network of similar agencies at the national and international level, sharing its own experience with them, pushing up the initiatives it is not able to carry out on its own to a higher level. The other relationship that is directed to the outside is the connection to value chains. I have spoken, in relation to value chains, of lasting contracts, notably with territories. We have already seen, on several occasions, that the transition to a "use society" requires the establishment at a national level of sites for assembling and reconditioning products. In itself, this is not a revolutionary idea, but rather the reinforcement and systematization of a business trend to create territorial agencies that are closer and more in tune with markets and their needs. Territorial oeconomic agencies could facilitate the emergence of joint ventures between a value chain's companies and

territories, or even, when the opportunity presents itself, between value chains. Community Interest Companies should be able to have strictly commercial subsidiaries, or, in the case under consideration, to have minority stakes in companies that value chains and territories share, so that they can keep an eye on them and serve as a model for linking value chains with territories.

Should territorial oeconomic agencies have a distinct status? Probably not. I have already mentioned my enthusiasm for the pragmatism of the British, whose criteria for the recognition of a CIC is that it has “goals that a reasonable person would consider to be in the general interest.” But it is important that a Territorial Oeconomic Agency embody the need for oeconomy to serve society’s general goals. This is why governance’s permanent goals are statutorily those of the TOA: general well-being, social cohesion, harmonious relations with the external worlds, and balance between humanity and the biosphere. Remember the Dalai Lama’s saying: “make an epic of peace.” As long as happy people have no history, as long as war alone is epic and peace appeals only to the dull virtues of domesticity, peaceful endeavors will never harness energy and creativity. The same holds true for oeconomy. Magazines sing the praises of technological exploits, conquered markets, and daring innovations leading to fabulous wealth. But aren’t the kind of exploits that our time needs those that offer greater well-being at a lesser material and energetic cost—more human fulfillment with fewer resources? TOAs can play an important symbolic role in this respect, by working concretely (the advantage of territories is that they make noble ideas concrete) on reconciling society’s various goals through production, exchange, and consumption.

TOAs must be the repository of everything that is learned from managing the various categories of goods. Needless to say, it is not the TOA’s role to preserve historical heritage—a local fragment of humanity’s heritage—or biodiversity. Its task is, however, to examine every good and every service from the standpoint of the governance systems that apply to the various categories of goods and services. It is the TOA that must, for instance, ensure that territories take their share of responsibility for the management of natural and domestic biodiversity and, to achieve this goal, propose new forms of cooperation between public and private actors. Similarly, it is not up to the TOA to manage water, energy, or soil. Yet as soon as the need to reconcile social justice and efficiency is recognized, it is the TOA’s role to establish (for example) labor exchanges and markets for negotiable individual energy quotas (to which I shall return) and to propose changes to water pricing that takes these two criteria into account. From

this point of view, the TOA network will play an essential role in gathering collective experiences, spreading good practices, and emphasizing the importance of outcomes.

Can TOAs contribute to democracy? How so? It is up to the government and political parties to organize public debate, and not TOAs. But if there is one democratic choice that precedes all others, it is whether the citizens want their territory to become an actor. This implies a redefinition of citizenship as a compromise between rights and responsibilities. On this front, TOAs can play two roles. First, they can raise consciousness. The data gathered on a territory's metabolism allows everyone to become aware of the impact of their actions, consistent with the three dimensions of responsibility that define oeconomy's legitimacy. Secondly, they can register and coordinate citizens who desire to get involved. Mobilizing creativity and valorizing passion require, as we saw when considering reciprocal exchange networks (RENs) or local exchange trading systems (LETs), locations where supply can meet demand, but differently than they do in classical economics. We need, at a territorial level, spaces that allow a wide array of mutual relationships to occur. Because TOAs will have to equip themselves with high-powered information technology, notably to analyze the flows that crisscross a territory, it is only natural that they become multipurpose spaces for matching up supply and demand and that they satisfy in this way the desire for involvement and active citizenship in the service of the community, which remain latent and invisible so long as they lack the means to express themselves.

I turn now to the role TOAs can play in improving understanding of territorial metabolisms, i.e. in keeping track of flows entering and leaving the territory as well as of internal flows. I have described at length the need for territories to optimize exergy and to establish electronic currencies enabling them to track and to analyze these flows.

To enable territories to know themselves, TOAs should optimize, even before institutional arrangements do so systematically, the use of external data and organize inquiries and research involving all citizens in order to work collectively towards a "legible" world: that is, towards a deeper and more just understanding of the dependency of territories on natural resources and external energy sources, of good and bad ways of using them, of the role of internal exchange within a territory, and of how to develop them. Heloisa Primavera, a Brazilian economist who made a name for herself during the Argentine economic crisis at the end of the twentieth century by organizing a bartering system on a hitherto unprecedented scale, emphasizes the importance of speaking of an "economy of abundance" rather than an "economy

of scarcity” to changing our perspective on society.<sup>250</sup> I think she’s right. If natural resources are scarce—indeed, far more than we realize—underused creativity and know-how is abundant. The oeconomy of fourth-category goods is fundamentally an oeconomy of abundance. But how can we determine the abundance of a good that we do not even realize exists? How can we learn to share when our economic system preaches day after day the virtues of competition, relegating cooperation to the backburner? One can be addicted to competition just as one can be addicted to drugs. Only the lengthy process of rehab, in which we learn the pleasure of doing things differently, can break us of the habit. And on this count, TOAs, by providing us with the information we need to make the contemporary world more intelligible, can play a decisive role. This intelligibility results, as I mentioned a propos of citizenship, in greater collective awareness of our responsibility. The latter begins with the kind of collaborative research I have just mentioned. By involving each individual in the creation of information bases on territorial metabolism and by making each person aware of the material and labor flows that pass through them, we all become actors, capable of identifying our realm of freedom. This is the necessary precondition for responsibility. Along the same lines, TOAs can play a part in evaluating the ways in which all of a territory’s actors exercise their responsibility. This need not mean a moral authority that hands out brownie points. Responsibility is the freedom’s counterpart. It should not be born like a guilty burden, but proudly worn as a mark of prestige. Even so, a neutral and shared space for reflecting on this idea is need, first to play down the anxieties it creates—we all begin by denying our responsibility, lest it be thrown back in our faces—next to provide communities with an authority to implement this fundamental ethical principle.

How—and this is my next point—can a Territorial Oeconomic Agency contribute to establishing in a particular territory a maximum degree of diversity and unity? Many current transformations make it necessary to put diversity and unity back into their proper respective places, placing diversity where there had previously been unity and vice versa. A good example concerns the management of a territory’s human resources. Often, available knowledge about them is poor. Typically, it consists of little more than statistics about levels of education or socio-professional status, a one-dimensional perspective on a reality that is far more rich and complex. Territory-actors, like successful companies, must know and have a forward-looking vision of their human resources—a decisive strategy for enhancing them. Across Europe we are

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<sup>250</sup> Heloisa Primavera : [www.heloisaprimavera.com](http://www.heloisaprimavera.com)

witnessing a generalization of the concept of “flexi-security”—a contraction of “flexibility” and “security” that closely resemble my idea of “open-closed” territories. The reluctance of labor unions is understandable when the concept is promoted unilaterally by employers: they fear that it is just an excuse for more flexibility, which is so important to corporations, while “security” is either forgotten or sloughed off onto the government (which lacks the means to provide it). And yet the idea in itself is undeniably a good one. Its goal is to guarantee people a standard of living and professional status, while avoiding the traditional approach of providing job security (or even a specific job) in a particular company). As I see it, the territory, which encompasses the job pool, is the idea level for implementing the principle of flex-security, as flexibility should not imply a rootless individual, lacking any social mooring, who receives job security in exchange for unrestrained geographical mobility. TOAs should play the role of a problem-solver in the management of human resources and in utilizing, permanently or temporarily, human resources that for whatever reason do not find a buyer on the job market. I do not believe in an oeconomy of social redistribution in which a minority of what Americans called “workaholics” labor intensively while the rest, rather than deploying their creative energies, are allowed to enjoy a life of consumption. It is both an individual and a collective duty to offer each person an opportunity to be useful. In this respect, I am more outraged by an oeconomy that allows idle hands and unsatisfied needs to coexist than I am by the risks associated with requiring the long-term unemployed to return to work. The territory’s space and the pluralist economy that characterizes it is the ideal site for exploring the range of opportunities for returning to active employment and the obligation of social utility (let us not be afraid to use the term, even if it is controversial), by offering temporarily or permanently multiple placement options, from socially useful work to self-employment and from salaried employment in non-commercial activity to local exchange systems for bartering, knowledge, and work. In this respect, I see Territorial Oeconomic Agencies as a territorial human resources department. In keeping with what has been said about joint territory-value chain initiatives, it must be the task of TOAs to promote, including through minority stakes, the development of new economic activities. Oeconomy’s specifications make it clear that the goal is not accumulating material resources but increasing well-being. When discussing oeconomy’s legitimacy, we analyzed well-being’s four main components: dignity, social capital, the opportunity to create, and consistency between one’s actions and one’s beliefs. These four terms should be written in golden letters in each TOA’s

mission statement. Overall, this effort will make a twofold contribution to raising our awareness of the fact that we belong to a community. We belong to a territorial community, because we can see it living all around us and because it offers opportunities to participate in it; but we also belong to a world community, since, thanks to the traceability of links and detailed labels indicating the series of resources and labor that went into a product (which I discussed in the context of value chains), territories belong not only to local and national communities, but also, more broadly, to a world community in which interdependence and solidarity are increasingly entwined.

Finally, Territorial Oeconomic Agencies must link the short and the long term, the present and the future. This implies that even TOAs activities be oriented to the long term, not fluctuating with the political shifts occurring in the various units that constitute a territory. Demagogy, in this case, is uncalled for. Long debates were needed at the European level before the idea of an independent European central bank was accepted, and many in France still see it as a political surrender. In 2008, French president Nicolas Sarkozy provided grist to the mill of this argument when, in the midst of the subprime crisis, he accused the central bank of being responsible, due to its independence and doctrinal rigidity, responsible for Europe's weak growth—even though, three months later, he praised the ECB's president, Jean-Claude Trichet, for the rigor with which he managed the financial crisis. Sarkozy did this in part to excuse France of its inability to honor its European commitments. This is not the place to get into debates about European monetary policy, the relative merit of a Keynesian stimulus, or the pros and cons of monetary rigor. What I wish to emphasize is the importance of having, at every level, of authorities that have been established by the state, but capable, once they are created, of maintaining their course, even when political forces pressure them to do otherwise. This presupposes that TOAs' capital is adequately distributed between local government, oeconomic actors, citizens, and perhaps even the kind of community foundations of the kind that have sprouted up in the United States over the past twenty years. It also presupposes that that TOAs' governing offices have renewable mandates of a fixed duration that do not overlap with those of elected officials. It is always possible that TOAs' leadership will become crusty and entitled, but this risk strikes me as a lesser one compared to the danger of constantly changing course at the very moment when we must undertake the "great transition" from a predatory to a sustainable oeconomy, with all the will, continuity, and perseverance that it requires.

TOAs' activity will address the long term by focusing on inter-generational solidarity. Consider two concrete examples. The first concerns the status of TOAs. It should benefit from flexible rules relation to gifts and bequests and be exonerated from inheritance tax, as are foundations in countries like Switzerland and Holland. This will allow affluent elderly people to express their faith in the future of their communities by contributing to their long-term development. The example of American community foundations is worth following. This requires abandoning the French suspicion which equates the recognition of a foundation's public utility to placing it under the state tutelage. Oeconomy can only be built on trust. Giving TOAs the benefit of the doubts is far preferable to placing them from the outset under state control.

Another concrete way of expressing inter-generational solidarity is care for the elderly. Every country in the world, with the possible exception of a few Muslim countries, is currently undergoing a demographic transition at a much faster rate than was anticipated twenty years ago, when we were blinded by fears of a demographic explosion that our statistics predicted. But most large countries, notably China, are about to witness their populations aging far more rapidly than is occurring at present in Europe. The question of caring and paying for the elderly will be an international concern. Since the dawn of time, the answer has always been intergenerational solidarity: I will take care of my parents and my children; my children and my community will then take care of me when, in turn, I am no longer able to take care of myself. TOAs could, to address this problem, create a time exchange. By giving a share of my time to care for the elderly, while I remain healthy myself, I would receive a time credit, a right to an equivalent amount of time when I in turn am elderly. The function of an exchange—where demand and supply encounter one another—which I have already described in relation to TOAs, would, in this case, play out over time, rather than in “real time.”

Another idea related to the long term is worth mentioning. Those who put aside money for their old age hope, without being speculators in the least, that when the time comes their savings do not consist of Monopoly money. This is why mutual funds offering a minimum guaranteed return exist, even if some are, in my view, borderline dishonest. The idea, which is as old as the world, is that one should invest one's savings in something of solid value, like gold, which will not have rotted away by the time one needs it. This is the principle of a “reserve currency.” In this instance, the ideal solution is one in which, contrarily to what occurs with stock options, each saver has an interest in a community's future prosperity: my savings are, in a

sense, indexed on the changing value of a community's four kinds of capital: material, intangible, human, and natural. I am convinced that this is a path worth pursuing.

I now turn to the role of public authorities in the implementation of territorial institutional arrangements (see the corresponding map in the index).

As it is plain for all to see, some of the hypotheses I introduced in my presentation of the functions of TOAs are not compatible with existing European and French legislation. It is thus important to identify the changes that are need to make TOAs a reality, or, at the very least, a possibility. I will concentrate on three realms of public action: rights and regulation; taxation; and public investment.

The transformation of rights and rules is at necessary at the European as at the national level. At the European level, the applicability of the principle of active subsidiarity to oeconomy must be recognized. Recognizing that oeconomy is a branch of governance will facilitate this transformation, which is in any case already underway. I have already explained how European reflection about Services of General Interest (SGIs), and specifically social services, contributed to a changed outlook. But the European Commission still needs to realize that by introducing the principle of active subsidiarity into the organization of production and exchange, particularly by recognizing its importance at the territorial level, it will not undermine European construction by derogating from the principle of free trade, but rather strengthen it by increasing its legitimacy and relevance to twenty-first century needs. This shift could occur in two stages: first, by recognizing the principle of active subsidiarity as one of the cornerstones of European governance; next, by recognizing oeconomy as a branch of governance, obeying the same foundational principles as other branches.

At the national level, a new kind of economic institution, the general interest company (or GIC) is needed. An initiative of this kind was undertaken in France with the creation of "collective-interest cooperative companies" (or SCICs). This institution, promoted by Guy Hascoët when he was state secretary for solidarity economics, starts from the same assumptions as the British CIC. But it was implemented the French way: far less pragmatically, with far more constraints (such as the obligation to respective cooperative regulations, i.e., distribution of power according to the principle of "one person, one vote," the involvement of all partners in decision-making, and no dividends on capital), and with a stipulation that companies must receive administrative authorization. The results? While the British established 1700 CICs in two



years, the French created a little more than a hundred over six years, half of which consist of preexisting companies that simply changed their juridical status. In other words, fifty completely new SCICs and about 500 new jobs: the SCIC is like using a canon to swat a fly. In short: liberating creative energies requires trust.

The most important future reforms pertain to taxation: the organization of a market of tradable quotas; the establishment of taxation on new principles, i.e., the shift from value added taxes to consumed resources taxes; the right to create local currencies; and the right to pay a share of one's local taxes in local currencies. Options exist. What we need is the will to implement them.

## Chapter 7: Currency and Finance

### 1. Currency, Finance, Energy: Three Facets, One Reality

“Money,” “currency,” “monetary,” “finance,” “financial,” “financial intermediaries,” “financialization”: these words, which have appeared throughout this book, lead us, like Hansel and Gretel’s breadcrumbs, to the final chapter.

I am not a specialist in financial and monetary matters. I have, however, constantly grappled with them, first as a civil servant, then as the head of a foundation. I encountered the concept of local currency before it was popular, when, as a civil servant in the French town Valenciennes, I was confronted with a region in crisis. Every promoter of local currency, beginning with Gesell in turn-of-the-century Austria, has been driven by more or less the same motivations as mine: they are outraged that idle hands can exist alongside unsatisfied needs.

I met Mohammed Yunus through my foundation in 1986, thanks to Maria Nowak, the founder of ADIE (the Agence pour le développement de l’initiative économique). Neither Yunus nor microcredit was as famous then as they are today. We helped Yunus produce one of the first films about the Grameen Bank. I was first interested in microcredit because of its implications for the struggle against social exclusion,<sup>251</sup> but I quickly realized its importance for thinking about how financial institutions build trust. This led us, in 1992, to organize one of the first international meetings on community financing, which gave birth to the French organization Finansol.<sup>252</sup>

As head of the Charles Léopold Mayer Foundation, I am also its financial manager. Foundations are faced with an inherent dilemma. On the one hand, they depend on income from

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<sup>251</sup> Pierre Calame, *Mission possible*, *op. cit.*, 1993.

<sup>252</sup> Finansol ([www.finansol.org](http://www.finansol.org)), founded in 1995, groups together the community financing organizations in France. The association created the brand “Finansol” in order to give a practical basis to the idea of community financing.

their investments to survive. These investments must be both sizable and managed in a way that ensures they can be sustained over time. On the other hand, foundations inevitably ask themselves whether their investments are ethical and socially responsible. These concerns led me to investigate the ways in which banks manage assets. I was struck, I must confess, by their rather narrow sense of professionalism—by their inability, that is, to think beyond the language of the *Financial Times*. Conformity reigns supreme.<sup>253</sup>

I remember talking with an official at a prestigious Swiss bank about my foundation's investments. In the middle of our conversation, he began telling me about the trust fund he had set up for his children. I asked him if he managed it similarly to the way that he handled our investments. He was indignant: "Of course not! I manage my children's fund with an eye to the future!" Luckily, in 1997, we discovered MBC Capital Advice.<sup>254</sup> Its founder, Moshen Sohrabi, had begun to specialize in advising institutions that needed help managing their assets, something that was uncommon in Switzerland at the time. He offered us an assessment of the practices of asset managers and, more valuable still, a long-term perspective on financial matters. For some time we had felt that financiers were perpetuating a system the purpose of which they no longer understood. I lose track of the number of times that I have heard bank officials schizophrenically extolling market efficiency in public while bemoaning "casino economics" in private! Consequently, at the suggestion of Maurice Cosandey, the former president of Swiss Polytechnic Schools, my foundation's board in 1992 appointed two economists, Paul Dembinski and Alain Schönenberger, to study financial markets. The result was a book: *Marchés financiers*:

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<sup>253</sup> In 1931, John Maynard Keynes observed: "a sound banker, alas, is not one who foresees danger and avoids it, but one who, when he is ruined, is ruined in a conventional and orthodox way with his fellows, so that no-one can really blame him." Quoted by James K. Galbraith in "La fin du nouveau consensus monétaire," *La vie des idées*, August 2008, [www.laviedesidees.fr](http://www.laviedesidees.fr).

<sup>254</sup> MBS capital Advice, [www.mbscapital.com](http://www.mbscapital.com).

*une vocation trahie?* (Financial Markets: A Vocation Betrayed?).<sup>255</sup> Then, in 1996, the Financial Observatory was founded in Geneva.<sup>256</sup>

Meanwhile, since the late eighties, I have begun to realize, as I reflect on how frugality has reached a philosophical dead-end, that we will never build a sustainable society if we continue measuring human labor and resource consumption by the same standard.

Such were my insights about finance and currency. But it is also important to consider several methodological issues. Finance and currency cannot be treated as a specific, self-referential, economic sub-discipline, dedicated to theorizing about the money supply and developing mathematical tools for managing risk and optimizing investments. That economics tends to insulate itself from the outside world is bad enough. But it is even worse when finance and currency do the same thing: that is, when they become ends in themselves, with an existence that is independent of actual goods and services, as well as those who use them and society at large! In this chapter, I will force myself to obey a methodological rule: I will not allow my terms to take on a life of their own. I will do so by systematically applying a principle that I stated at the beginning of part two: governance must be approached from multiple angles.<sup>257</sup> Using the Desmodo conceptual tool,<sup>258</sup> I will use six interpretive grids, each of which I will briefly consider in turn: the evolution of currency and finance; our tools for understanding and evaluating currency and finance; the capacity of currency and finance to achieve governance's goals; the compatibility between currency and finance and governance's general principles; the

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<sup>255</sup> Paul Dembinski and Alain Schonenberger, *Marchés financiers, une vocation trahie?*, Éd. Charles Léopold Mayer, 1994.

<sup>256</sup> See [www.obsfin.ch](http://www.obsfin.ch).

<sup>257</sup> Part II, chapter 1, second section: "Oeconomy Must Seek Inspiration from Governance's Fundamental Principles."

<sup>258</sup> See [www.exemole.net](http://www.exemole.net).

positions and perspectives of different actors; and strategies for change. Such an approach may be a little laborious, for which I apologize to my readers; but it at least has the merit of clarity.

Why did I entitle the first section “currency, finance, and energy”? Because they are three facets of a single reality. Understand our current situation requires remembering how we got here. During the period following the Second World War, but particularly in the wake of Nixon’s decision to abandon the gold standard in 1971 and the first oil crisis of 1973, the three spheres of currency, finance, and fossil energy, which were originally distinct, merged together to the point of becoming indistinguishable.

What do we mean by the “financialization of the world”? It refers simultaneously to the consolidation of financial markets (i.e., an uninterrupted flow of transactions that disregard time and space) and a gradual shift in the balance of power from companies that make things to financial institutions.

A notable feature of the “financialization of the world” is the “TINA Syndrome”: the tendency to accept Margaret Thatcher’s claim that “there is no alternative.” Our first priority must be to break TINA’s spell. At the outset of his 2006 report for the Rome Club, entitled *Money and Sustainability: The Missing Link*,<sup>259</sup> Bernard Lietaer (whose ideas have influenced this chapter considerably) quotes Mark Kinney: “Money is like an iron ring we’ve put through our noses. We’ve forgotten that we designed it, and it’s now leading us around.” The financial and monetary system, to use a phrase that sums up Paul Dembinski’s book *Finance servante, finance trompeuse*,<sup>260</sup> has replaced relations with transactions. Transactions are abstract, disconnected from the spatial, temporal, and affective circumstances in which human beings live their physical lives.

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<sup>259</sup> Bernard Lietaer, Stephan Brunhuber, *Money and Sustainability: the Missing Link*, Rome Club report, Citerra Press, 2006.

<sup>260</sup> Paul H. Dembinski, *Finance servante ou finance trompeuse*, Parole et Silence, 2008.

Dembinksi recalls, on this note, the words of Nick Leeson, the famous trader who triggered the collapse of the venerable old Barings Bank: “In a virtual space, you don’t feel like you’re dealing with real money.” The same words might have been uttered nine years later by Jérôme Kerviel, the Société Générale trader. He went even further than Leeson in the direction of abstraction (if this is possible). During questioning, he revealed himself to be extraordinarily incapable of distancing himself from the mechanisms that he was unleashing. This reminds me of something that Robert Oppenheimer, the atomic bomb’s “father,” once said: “When you see something that is technically sweet, you go ahead and do it and you argue about what to do about it only after you have had your technical success. That is how it was with the atomic bomb.” And it is said that Enrico Fermi, another prestigious physicist who participated in the Manhattan Project, exclaimed after the first atomic bomb was dropped: “It’s horrible, but what a wonderful experiment!”

One senses that this is what happened with the sorcerers’ apprentices of finance. I try to imagine them in their offices. They must play war games on their computers with the same adrenaline high that they play with the billions entrusted to them by their banks and their clients.

The problem is that, unlike war games, financial games have a direct impact on lives, on business, and, most insidiously, values. The impact on lives is evident. We have only just begun to feel the effects of the subprime crisis. Barkley Rosser has analyzed the unraveling of forty-six financial bubbles: in the vast majority of cases, an initial shock is followed by steady erosion, which precedes the ultimate collapse. This may well be the situation in which we find ourselves today.<sup>261</sup> Trust between major banks was badly shaken by the subprime crisis. The American

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<sup>261</sup> Barkley Rosser is a researcher for “Comparative Economics in a Transforming World Economy,” specialized in non-linear economic dynamics. Note from December 2008: events of the second half of 2008 obviously confirm Barkley Rosser’ diagnosis. It is worth pointing out that the events that followed the collapse of Lehmann Brothers were highly predictable.

government's repeated interventions to prevent the failure of major institutions was insufficient to reestablish this trust, as were the efforts of sovereign wealth funds particularly Asian ones, to recapitalize major financial actors. We are at the mercy of a general recession, the dollar's collapse, and the successive failures of major financial institutions.<sup>262</sup> Signs that things were headed in this direction have been visible for at least a decade. The Federal Reserve had already rushed to the rescue of the hedge fund, Long Term Capital Management (LTCM). The collapse of the Barings Banks had demonstrated the risks of the solitary and dangerous game of speculation. But no lessons were learned—except, perhaps, that the state would always feel compelled to step in to avert a systemic crisis. Something, the presence of life-guards on the beach encourages swimmers to be reckless.

Secondly, financialization affects business. The abstract, arbitrary, and absurd principle there should be a 15% return on all equity has gradually become, since the 1970s, the golden rule for any CEO who wants to keep his or her job.<sup>263</sup> The world's thousand or so largest corporations, which on their own comprise more than half of the world's trade, are thus forced, because of pressures from hedge funds, equity funds, and other raiders, to follow an economic model founded on a pure abstraction.

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<sup>262</sup> Note from December 2008: Only the massive and coordination intervention of governments from across the globe prevented consecutive failures. As for the dollar's collapse, it was avoided because of a circumstantial reason, namely the general loss of confidence in all kinds of investments, which provisionally turned treasury bonds into a financial refuge, and a structural reason, the importance of foreign holdings. Consequently, the dollar's sudden collapse would result in a lot of losers, starting with the Chinese government, which, in late 2008, increased its holdings in dollars while also sending off more and more signals that it is deeply worried.

<sup>263</sup> Jean-Paul Betbèze, *Les dix commandements de la finance*, Odile Jacob, 2003.

Financialization, finally, impacts our values. Our society is poisoned by the idea that there can be winners that get rich without actually creating any wealth, and whose talent consists solely in seizing opportunities.<sup>264</sup>

To grasp the scale of the problem and the rate at which it is growing, consider a few figures. Financialization began with the dollar's release from the gold standard in 1971. The result was a rapid growth in the United States' debt, which grew from 1.2 times to 3 times GNP. In other words, printing presses have been turning non-stop.<sup>265</sup> In December 2010, foreign holdings in dollars were estimated at \$4.44 trillion.

A second set of figures relates to the stock market. A few decades ago, my understanding of the stock market was very naïve. I saw it as a means for companies to raise capital and find shareholders who wanted to participate in a collective venture. If this were true, stock market transactions would be directly related to new financial needs, capital growth, and initial public offerings. However, according to the calculations of Paul Dembinksi,<sup>266</sup> new financial needs represent only 3%-5% of all transactions. 95%-97% of all remaining transactions consists of nothing more than the trading of existing stock. The only beneficiary is the financial middleman who collects a commission as a result. According to Dembinksi's calculations, the ratio between corporate added value—a simple measure of their economic activity—and the total number of transactions has multiplied fifty times over the past forty years. For every euro of corporate added value today, twenty-five euros are traded on financial markets! The sums involved are so enormous that the numbers take on an abstract quality. In 2008, the French satirical newspaper

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<sup>264</sup> Note from December 2008: The scale of Madoff's fraud demonstrates how far this poison has spread. The fact that part of the financial establishment put its faith in a scheme based on profits that no one sought to understand is revealing of the mixture of greed and naïveté that years of "financialization" have produced.

<sup>265</sup> See the Lietaer report for the Rome Club, p. 12.

<sup>266</sup> Paul H. Dembinski, *Économie et finance globale, la portée des chiffres*, New York and Geneva, United Nations, 2003.



*Le Canard enchaîné* proposed a new monetary unit called the “*bouton*,” in reference to the CEO of the French commercial bank Société Générale, Daniel Bouton. One “*bouton*” would be worth 4.9 billion euros—the amount the bank lost due to the solitary actions of a single young trader. This like measuring use light years to measure one’s morning commute!<sup>267</sup>

The *Economist*, in an article from May 2008 entitled “The Oil Price Recoil,” analyzed the impact of rising oil prices on global demand and speculation. It estimates that speculative funds have invested \$260 billion in raw materials. These were liquid funds, ready to make bets on the future—twenty times more than in 2003. And, as in this type of operation only 10% of the sum is the fund’s own capital and the rest is borrowed money, the total size of the transactions involved is ten times greater, i.e. \$2.6 trillion.<sup>268</sup> These trends are symptoms of a system spiraling out of control.

To return to postwar monetary and financial history: the Bretton Woods agreement of 1944 laid the groundwork of the current system. Even if John Maynard Keynes was unable, because of resistance from Harry Dexter White, to impose his idea of a global currency, the great powers of the day, conscious of the errors of the prewar period, established a system that could pacify and stabilize international exchange. The dollar became the world’s currency. In return, the United States assumed all the responsibilities that come with power by guaranteeing the dollar’s convertibility: \$35 for an ounce of gold. Exchange rates between major currencies could be regularly renegotiated. The International Monetary Fund (IMF) was established to steady the system in the event of a crisis. At the time, currency and finance belonged to sharply distinguished realms. Ever since the creation of unified and centralized states, first kings, then

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<sup>267</sup> Note from December 2008: In the second half of 2008, American, European, and Chinese financial rescue packages were denominated in hundreds of billions of euros and dollars. For the average citizens, who throughout the year is told that coffers are empty, this is enough to make one lose one’s faith in the system and conclude that a double standard very much exists.

<sup>268</sup> See Paul Davidson in the magazine *Challenges*, July-August 2008.

national governments have exercised the privilege of coinage, which in many ways is the ultimate symbol of the state's sovereignty and authority. As such, coinage belongs to the public sphere. Finance, on the other hand, with its investors and stock markets, belonged to the private sphere. In a chart found in the annex, I show the main changes that have occurred since the seventies. They are the result of three overlapping processes.

The first is technological change. With the telephone, computer technology, and particularly the Internet, the global financial and monetary systems have become interconnected. 1973 saw the creation of SWIFT (Society for Worldwide Interbank Financial Telecommunication), which automated and accelerated bank-to-bank transfers. In 2006, three billion messages were exchanged each day, almost instantaneously, between 2,400 members.<sup>269</sup> Computerization means that the corporate or individual assets are no longer treated simply as deposits, but also as investment. In France, what used to be our old post office, with its quaint checking accounts, has now become a Banque Postale (Postal Bank) that makes us feel guilty when we do not make the most of its fancy financial offers.

After Nixon ended the gold standard, currency speculation quickly increased. According to Bernard Lietaer, the buying and selling of currency with no connection to the exchange of goods and services represents 97% of global currency trading. Exchanges in which goods and services are traded represent only 2%-3%. Currencies have become a financial product like any other, on which one can speculate with the help of derivatives. This is proof of the way in which currency and finance have become integrated. Following the self-interested advice of financial middlemen, it has almost become a moral duty for each of us to make money off of wheat, oil, and currency ... Everything can be a bet. Everything can be played.

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<sup>269</sup> Paul H. Dembinski, *Finance servante ou finance trompeuse*, op. cit.

In addition to technological change there is social change, and, in particular, demographic change. In wealthy countries, an ageing and affluent population fears for its well-being and no longer relies on family and local solidarity to protect itself from life's risks. As we have already mentioned, faced with aging populations—today in Japan and the West, tomorrow in China, and sooner than we might expect elsewhere—each one of us confronts a new version of an eternal question: who will take care of me when I'm old? The traditional answer was transgenerational: I take care of my parents; I take care of my children; when I'm old, my children will take care of me. But when the period of time during which society must take care of me grows considerably longer and when society produces fewer and fewer babies, security must be sought elsewhere.

Furthermore, studies show that the wealthier people get the more they tend to worry about their future well-being. The poor, after all, deal with precariousness every day. It inures them from fear. In a country like France, where long-term unemployment and insecurity are the greatest dangers, members of my own generation—the baby-boomers—have no instinctive knowledge of what an unpredictable world is like. Our society celebrates efficiency and performance. We want to control our own fertility, intellectual productivity, ageing, and future. “Consider the lilies, how they grow”, says the Gospel. “They toil not, they spin not.” This is one problem we have solved: there are no more lilies in our fields. The result is that “resources accumulated by pension funds and other benefit institutions are estimated to be worth 15 trillion dollars and represent 30% to 60% of household savings.”<sup>270</sup> Thus in addition to traditional financial actors, our world is now full of powerful financial actors who are our metaphorical doubles: pension funds embody our desire to be fully insured, while hedge funds express our dreams of winning the lottery. Perhaps the most important aspect of this demographic and sociological change is that it rests on the premise that society is founded not on long-term trust or

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<sup>270</sup> Paul H. Dembinski, *Finance servante ou finance trompeuse*, *op. cit.*

the exchange of care-giving, but on abstract, anonymous, and ephemeral transactions—in other words, on the very negation of social bonds. It is particularly disturbing that pension funds, whose purposes is to invest for the long-term by transforming our current savings into a guarantee of financial security twenty years down the line, participate so willingly in a casino culture based on immediate gain.

The third major change concerns energy. Our society is even more obsessed with gas than with security. However, nature being (for once) poorly designed, major fossil energy reserves lie in a handful of small and under-populated countries, which have proved incapable of transforming the manna of oil into a productive investment. This trend was set by the two oil shocks of 1973 and 1980, which amounted to a sharp increase in the tribute demanded by the owners of fossil fuel resources. This was the golden age of “petrodollars.” Banks, needing some place to invest this new capital, but lacking the entrepreneurial skill required to generate new wealth, embarked on risky schemes, notably loans to developing countries, often dictatorships. The result, following a sharp increase in interest rates, was the “debt crisis.” The reason why most people viewed this crisis as illegitimate is obvious: the purpose of these loans was not need or an ability to absorb them, but rather the need for an outlet in which to invest excess capital. If there is genuinely global currency today, it is without question oil. I am rather surprised that it is not used as a unit of account. We speak of the change in the price of oil in terms of dollars and euros, but it would be more meaningful to track the growth of GDP, the dollar, the euro, etc., in terms of TEP (tons of equivalent petroleum). Moreover, oil nations regulate the value of their oil-currency by producing more or less. If one considers currency’s three functions—means of payment (a good that everyone constantly needs, which can be traded for anything), unit of account, and store of value—oil has all the attributes of a currency and OPEC all those of a

central bank. The comparison can be taken even further: the “oil curse” prevents countries with vast reserves of “black gold” from achieving genuine economic development, just as the influx of silver and gold from the New World ruined the Spanish economy in the Age of Discovery. Thus, living at the tail end of the transitions that began in 1971, we find ourselves in a unified market, in which time, space, and social bonds have disintegrated into billions of abstract transactions, while currency, finance, and energy are managed in a highly integrated fashion.

## **2. Making Currency and Finance Serve Communities and Contribute to a Better Understanding of Exchange**

I will now consider the monetary and financial system from three perspectives: its basic concepts and its principles of knowledge and evaluation; its suitability for achieving governance’s general goals; and, finally, the degree to which it adheres to governance’s general principles.

The following analysis of the monetary and financial system in terms of its basic concepts and its principles of knowledge and evaluation is summarized in the chart found in the annex.

The root of the financial system’s problem lies in the way of thinking upon which it depends. As Bernard Lietaer rightly reminds us, two important but unacknowledged hypotheses about money underpin economic theory as a whole.<sup>271</sup> The first holds that money is neutral. It is a merely passive tool, one that facilitates exchanges that would take place anyway. This tool is presumed to have no bearing on the types of transactions effectuated, nor on the kinds of investments made—and even less on relationships between the people who use it. The second hypothesis holds that money is what it is and that we can do nothing about it. Both hypotheses are false. Money and finance have two historic purposes: fostering social bonds within or

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<sup>271</sup> Bernard Lietaer, *Mutations mondiales, crises et innovations monétaires*, *op. cit.*

between communities through the exchange of goods and services; and bringing savings into contact with human needs, particularly the need for capital. These purposes have become, however, increasingly invisible.

Beyond its practical value—the acquisition of things that interest me and that someone else owns and is prepared to relinquish—exchange is also valuable because of the bonds it creates. This has been observed since the dawn of time. Jean-Michel Servet, in his illuminating article on “paleo-currencies,” emphasizes that exchange is a bond that does not simply end with a transaction’s conclusion (i.e., payment for a good or the reimbursement of a debt).<sup>272</sup> In a way that recalls how the cohesion of physico-chemical systems are maintained by exchanges between atoms and molecules, a community only exists by preserving the bonds between its members. These bonds are perpetuated through an uninterrupted chain of material, social, or symbolic exchange. Communities and relationships only lose steam when they are not used. Exchange exists from the moment communities exist, and communities exist from the moment permanent exchange flows occur. Money is both a means of exchange and a symbol of community. From whence flows an important corollary: there are as many currencies as there are communities seeking to consolidate social bonds through exchange. For instance, for members of my generation, the creation of the euro was of enormous symbolic importance. It is still too early to say if the euro will live up to its promise of prosperity. As has always been the case throughout the history of European construction, we find ourselves at present in a precarious state. The creation of the euro will lead us, sooner or later, to harmonize economic and fiscal policies. But beyond these material effects, I am struck by the symbolic significance of the disappearance of borders and the use of a single currency. I feel like a foreigner in countries within the Union in where I have to exchange currency before I cross a border. In the Eurozone, I feel at home. The

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<sup>272</sup> Jean-Michel Servet, “Monnaie et esprits du don,” in *La part de l’oeil*, vol. 1, Brussels, 2008-2009.

adoption of a common currency is truly a foundational act for the community. From the standpoint of the community's cohesion, the goal must be to maintain, intensify, and to render visible exchanges occurring within it. Currency is a privileged means to this end, though it is not the only one. Many networks are currently being created, like online social networking sites, of which Facebook is the most important, which depend on exchange but not money.

Maintaining communities through the exchange of goods and services raises three questions. First, what is the scope of the community? Second, what is the community's mean of exchange and what makes it reliable? Third, what keeps the chain of exchange uninterrupted, thus preserving a community's cohesion?

The first question, then, is that of a community's scope. This scope defines a privileged sphere of exchange. Complementary currencies that are being developed at present are always defined in relation to a community. For this reason, Bernard Lietaer remarks: "A currency is a sign of agreement." A global currency, like the postwar dollar, expressed a desire to transcend national rivalries. Today, this is the euro's primary symbolic function. Communities, ranging from the local to the global, overlap with one another; by extension, so do currencies.

Second question: what are the means of exchange used? Paul Dembinski writes: "For a monetary order to be sustainable, it must ward off three concerns that any means of payment will arouse: the anxiety of counterfeits, the fear of decline in or loss of value, and the risk of non-acceptance by a third party."<sup>273</sup> Considered solely as a means of exchange, a currency exists only to the extent that people who use it trust each other. This goes for official currencies as well as for complementary currencies. During the Argentine crisis of the mid-1990s, a global bartering network was born through a federation of local bartering clubs. At the end of the twentieth century, this global network consisted of several million people. Some local governments even

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<sup>273</sup> Paul Dembinski, *Finance servante ou finance trompeuse*, op. cit., p. 43.

allowed taxes to be paid in this currency. The global bartering network issued “*creditos*.” It collapsed shortly afterwards, as a result of a massive counterfeiting scheme.

Traditionally, it has been a central authority—a lord, a king, a central bank—that guarantees a currency’s value and thus makes it trustworthy. This is why the concept of currency has often been associated with central powers. But one must not confuse the function that has to be fulfilled with the particular way in which this is done at a given moment—there are different ways to do this, depending on available technology. Thanks to computerized management systems it is today possible to control collectively the exchange—and thus the currency in which this exchange is denominated—with no need for a central authority. Moreover, even with official currencies, electronic exchanges occurring between banks at an international level have become the system’s collective guarantors.

Third question: what keeps the exchange going? What happens to a community when some of its members break the chain of exchange, refuse to play the game, and turn a means for circulating goods and services into a hoarding mechanism? This is what John Maynard Keynes famously called a “liquidity trap.” This was the essential question asked by Silvio Gesell, a fascinating figure whom Keynes quotes, but who is forgotten by mainstream economics. Over the past few years, he has become a major intellectual inspiration for promoters of complementary currencies.<sup>274</sup> Gesell’s idea of a “melting currency”—a currency with a negative interest rate—was aimed at ensuring the continuity of exchange and to punish hoarding. Whoever interrupts exchange and thus penalizes the community must be punished in turn. The exchange currency must lose its value if it is not used. This depreciation is known as demurrage or, as Bernard Lietaer calls it, a “parking fee.” In his book, *Of Human Wealth: New Money for a*

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<sup>274</sup> Denis Clerc, “Silvio Gesell : un prédécesseur de Keynes ? ,” in *Alternatives économiques*, April 1998.



*New World*,<sup>275</sup> Lietaer describes, from this perspective, medieval currencies that were devalued approximately every five years, an incentive that kept them in permanent circulation. Drawing on the work of historians, Lietaer sees the control that monarchies asserted over these currencies, as well as the resulting scarcity of means of exchange, as one of the major factors triggering the great crisis in which Europe wallowed through the Middle Ages. The crisis culminated with the famines of the late thirteenth century, then with the plague of the mid-fourteenth century. Most “miles” programs—those de facto currencies that airlines use to reward faithful customers, though they can now be used to buy much more than free plane tickets—use similar mechanisms, in which depreciation encourages exchange.

From the preceding overview, four major ideas are worth retaining. First, the means of payment that promote exchange within a community do not necessarily need to be denominated in the same units as those that are used for savings and investment. Second, every community has the right to create its own means of exchange, i.e., its own currency. Third, means of exchange depend on trust. There is dialectic between trust-building and exchange-building: when one weakens, both weaken. Fourth, exchange currencies explicitly or implicitly involve a system of depreciation, which penalizes hoarding while encouraging savings and investment: if I know my currency money will soon lose its value, I’ll either spend it or invest it. This is precisely what is happening in China. Money has a real negative interest rate and there are no retirements: hence the massive investments, particularly in real estate.

But a new question must be asked: what exactly is it that we exchange? And with whom? Let me begin with the second part of the question. There is currently much talk about “development financed by debt”. There is no question that American deficits—the printing of money, the Fed’s efforts, in light of the subprime crisis, to avoid recession by lower interest

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<sup>275</sup> Bernard Lietaer, and Stephen Belgin, *Of Human Wealth: New Money for a New World*, Citera Press, 2006.

rates, the loose monetary policies of Alan Greenspan—underwrote, over the past few decades, global growth. If some countries blamed the US for its lack of monetary and fiscal discipline, they secretly whispered: “Let’s hope it continues; if not, we’re in for a recession.” For a non-specialist like me, however, who is not interested in the details of money creation, one question remains. If there is a borrower, there must be a creditor. Who is he? Without one, it’s not really a debt. It’s more like the beginning of a game of Monopoly: everyone must be given a certain quantity of “money” for the game to begin. But when one considers the three-player game played by ourselves, others, and the biosphere, it is clear that the way money currently functions says little about the flows between these three players—one of which, the biosphere, is never even consulted. Yet the preservation of the biosphere for future generations is a critical feature of oecconomy’s specifications. Not only is this actor endangered, but we do not even have the measuring tools that would allow us to determine just how much it has been hurt. As I mentioned below, we have to be able to describe how the “world system” evolves.<sup>276</sup> Considered as a unit of account, our present-day currency offers us no tools for measuring this evolution.

The mystery thickens when one attempt to answer the other half of the question: what exactly is being exchanged? It confronts us with the veil of ignorance that money throws over the reality of exchange. Not only does money tell us little about reality, but it obscures it, preventing us from understanding others and the world in which we live. It is the logical consequence of what I called, when discussing territories, our “lumpless society”—as well as what I would call our “dimensionless society.” Exchange is both a relationship and a thing. The good or service obtained has physical qualities, but it can also be defined by everything that contributed to producing it, that is by four types of capital and three kinds of resources. Yet reducing this complex contents to a single measure—monetary value—entails an extraordinary loss of

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<sup>276</sup> Part two, chapter one, third section.

information. It is a kind of logical swindle that would not even fool a high school student. The mistake consists in the presumption that all dimensions are equal, since, at the end of the day, the rational consumer (i.e., the buyer) maximizes a single function: his satisfaction. But what exactly does this prove? When we eat, everything ends up in our stomach; when we buy food, we choose between meats, vegetables, and so on. But does this mean there is no difference between a protein and a starch? Should we not seek to balance different food types? Do nutritionists think solely in terms of the number of qualities consumed, on the ground that all qualities are equal? Do mathematicians conflate vector space with scalar products? Any practitioner can tell you that information is less reliable the later it appears down the chain. If it is degraded at its very source, no reverse movement is possible. The final user of the information becomes a victim of the initial emitter's choices. This is what happens with money. The conclusion is obvious: money, as a unit of account, must, all the way through the final user, consist of the richest information possible, relating to production processes and to product components (each of which is irreducible to one another).

The ignorance that money induces can be contrasted to the detailed accounting systems that society has at its disposal for ensuring that we all—individuals, families, and companies—can know where our money goes. A family needs to know what it spends on food, transportation, housing, leisure, etc. Companies respect detailed accounts. We are perfectly capable of gathering rich, multidimensional information when we need it. It is thus all the more revealing that we have refrained from doing so in the case of exchange.

The same kind of ignorance that money creates also occurs in finance. As an example, let me mention once again my experience as head of a foundation. Our board became interested in the ethics of our investments. I looked into ethical guidelines for asset management. At present,

it is extremely difficult to reach a conclusion about a company's social impact. I recall a conversation with a manager of ethical investments well known in Switzerland. I asked him what his criteria were, given his limited human resources, for determining whether to include a company's shares in a portfolio. He began by excluding anything having to do with tobacco, alcohol, drugs, and arms. The next major criterion was "corporate governance." Convinced that corporate governance is a passing fad, as is illustrated by the long-term prosperity of family companies, whose primary asset is a will to endure over time, I expressed my surprise at what struck me as an odd choice. He replied frankly: "Perhaps, but it is the only criteria that we can easily investigate." It's the classic story of the drunk who looks for his lost keys under a street lamp—not because he lost them there, but because it's the only place he can see.

Even the most powerful "ethical rating" agencies limit themselves primarily to analyzing companies' environmental and social reports. Looking further would require investigative tools that they lack. The question of the cost of access to information proves in this instance decisive. The high cost of access to information explains the importance of international rating agencies like Standard & Poor's and Moody's, even though they are regularly criticized for their failure to detect major problems (as with Enron and the subprimes). The conclusion is obvious: precise methods for evaluating companies will only exist if relevant information is gathered at the grassroots, as a by-product of daily activities. Supply chain agreements and ISO sustainable supply chain norms will lead to the implementation of such information systems.

Do we at least have reliable indicators on the quality of financial middlemen? Those who provide their clients with relevant information are rare. Some use the same specious arguments as our politicians: they take credit when things are going well and blame the stock market when they're not. Four sets of data make it possible to evaluate the activity of financial middlemen:

portfolio turnover, the phenomenal acceleration of which I mentioned previously—proof that that interests of financial middlemen have trumped those of their clients; long-term profits (a performance index for managers must always cover performance over at least five years); the investment climate, necessary for understanding what the middleman can reasonably grasp in a genuinely professional fashion; and, finally, investigative tools for evaluating the quality of its investments. Though this data is easily available, it is not often emphasized.

The question of the social consequences of one's action is relevant not only to major companies and their financial officers. It also concerns those financial institutions that like to present themselves as the paragons of virtue. I am thinking in particular of microfinance institutions offering microcredit. Thanks to Yunusmania, they would appear to the very models of social utility. But is this so obvious? What aspect of their actions is actually measured? The need to believe, the need for certainty is so great that, once we have lost our faith in the market's efficiency, we now celebrate the dawning of the age of microcredit as it prepares to take on global poverty. Yet things, regrettably, are not so simple. In March 2008, Jean-Michel Servet presented an astonishing paper at an international conference on micro-intermediation held at the University of Orléans. He demonstrated that, as with ethical investing, the path to rigor is long.<sup>277</sup> He begins with a quote from Emmanuel Bove: "Nothing is as misleading as good intentions, as they give the impression of being goodness itself." He then quotes a study financed by Action Aid (a major international solidarity NGO) and Unayan Parishad (a Bangladeshi NGO led by Professor Qazi Kholiquzzaman)<sup>278</sup> on microcredit's actual impact in Bangladesh. In other words: a study of how faith is practiced in the Vatican! The conclusions are astounding: "As a

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<sup>277</sup> Jean-Michel Servet, "Comment définir la responsabilité sociale des divers acteurs contemporains de la microfinance ?" ("How Does One Define the Social Responsibility of the Various Contemporary Microfinance Actors?"), Journées internationales de microintermédiation, March 2008.

<sup>278</sup> Qazi Ahmad Kholiquzzaman, *Socio-Economic and Indebtedness-Related Impact of Micro-Credit in Bangladesh*, Dakka, The Universal City Press Limited, 2007.

general rule, microcredit does not offer borrowers an economic basis allowing them to exit the vicious circle of poverty to access a significantly higher income and standard of living. Moreover, many become caught up in debt's vicious circle and fall deeper into poverty.” Having become aware of these consequences, our foundation has done international work, the usefulness of which has now been established, to promote criteria pertaining to the social responsibility of microcredit institutions.<sup>279</sup> This brief consideration of microcredit proves that making information available that facilitates a better understanding of reality and impact of currency and finance is required in every monetary and financial domain.

We are no better placed for evaluating the state of the world system or the development of various kinds of capital. A normalized approach should be adopted at an international level so that evaluation can be conducted at different geographical levels based on precise rules for aggregation, as some entities—such as intangible capital or biodiversity—cannot be added up. In 1990, the United Nations Development Program created the Human Development Index. It is a composite index for evaluating the degree of human development. It considers a variety of indicators of economic prosperity and living standards, primarily life expectancy, education, and standard of living. It has, in part, changed the way we look at different countries and is a good example of the impact of indicators on worldviews. But clearly, it does not address the problem we are currently considering. We are bombarded with figures; yet we know almost nothing about what really matters.

Making currency and finance once again serve the economy thus requires that we simultaneously rethink their foundational concepts and the information systems that they generate in order to better gauge their impact.

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<sup>279</sup> Finance solidaire : <http://finsol.socioeco.org>.

### 3. Subordinating Currency and Finance to Governance's Goals and Principles

#### *Currency, finance and goals of governance*

Let us now turn to currency and finance as seen from the perspective of governance's goals. Let us begin with governance's first goal. Do currency and finance contribute to a more harmonious relationship between humanity and the biosphere? Given what we have been saying, the answer is "no." They offer no information system providing us with knowledge about these relationships, and even less about their degree of harmony. The abstract character of currency and finance, along with the ubiquity they acquire through computer technology and the Internet, relegates their relationship to the biosphere to the furthest recesses of our consciousness. Ancient societies were predatory, but this predatory behavior occurred before their very eyes. Consequently, it could be denounced.<sup>280</sup> If the relationship between humanity and the biosphere is to become once again concrete, it literally has to hit us in the face, whether as acid rain or as climate change. In the three-person game of borrowing and lending, the biosphere is the forgotten player, from whom the others borrow without ever remembering to repay.

The second goal of governance is peace. Do currency and finance contribute to security and peace? Yes and no. Oeconomy is Janus-faced. One face is peaceful, because it builds relationships. The other is warlike, as it exacerbates competition over scarce resources. It is the same with currency and finance.

I would also place financial relations between nations on the side of peace. In doing so, I am sure that I will enrage some people. The trade surplus that China has accumulated in relation to the United States, some \$1.2 trillion, can in the last resort be seen as a kind of export credit benefiting Chinese companies. Will it ever be reimbursed? This is highly unlikely. But in the

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<sup>280</sup> See on this issue the book by Matthieu Calame, *La tourmente alimentaire, op. cit.*

meantime, it creates de facto solidarity. China and the United States are bound to one another. The Chinese economist Ping Cheng, at a recent meeting of Economists for Peace and Security,<sup>281</sup> made this point very clear: if the dollar collapses, the first victim would be China's leadership, which public opinion would blame for trading the people's labor for monkey money. The only way for China's leaders to avoid this scenario is to carefully invest, as they have already begun to do, their enormous treasure in Western companies. They must do so prudently: it is important not to heat up the water too quickly, lest the frog jump out of the pan before it is cooked.<sup>282</sup>

War, the other side of Janus' face, is obviously disconcerting. The financialization of the world has led companies based in some nations to acquire assets in others. This is an eminently positive development—as long as exchange remains equitable. Yet while the existing financial system ensures the security of short-term transactions, it does not, over the long term, offer the only guarantees that matter: the legitimacy (subjectively defined) of contracts and trust between contracting parties. We saw this with the Sarbanes-Oxley Act: the American government was concerned more than anything else with preserving trust in the system. The disappearance of trust-based relationships is also apparent in the trend towards nationalizing oil and gas companies: nothing, if not war, will prevent a state from recuperating its underground resources—especially when international law still rests on an archaic conception of sovereignty—if it deems that an investor has taken advantage of its position of strength. The same process can be seen in populist movements that encourage governments to “reclaim national wealth.” But beyond the problem of nationalizations without compensation is the question of ecological debts—and this question will literally blow up in the face of the

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<sup>281</sup> The conference was held in 2008 by the FPH at the Association of Economists for Peace and Security and the Initiative for Rethinking the Economy. It was devoted to the subprime crisis.

<sup>282</sup> The “frog syndrome,” which is often used in ecology, refers to the fact that a frog that is placed in cold but slowly heating water does not leap out of the pan and dies without realizing what is happening to him, while if the water is heated quickly, he jumps out and flees.



international community as rapidly growing countries like India and China eventually address the question of how world's natural resources should be shared. It must be posed calmly. Otherwise, we risk military escalations, of which history offers plenty of examples.

Governance's third goal is social cohesion. Here, too, the verdict is unassailable and the grade poor: relationships unite while abstract transactions isolate. Finance also isolates its primary beneficiaries from the rest of the world, as well as companies from their employees. The only beneficial side-effect is that billionaires have created a new generation of foundations. I obviously have in mind Bill and Melissa Gates, as well as Warren Buffet and George Soros. Giving a significant share of an immense fortune to a foundation dedicated to the public good changes the meaning of relentless accumulation, making it more like a tax levied at a global scale than the privatization of added value for the benefit of the few. It is no accident that the action of this new kind of foundations is resolutely international, unlike most other American and European foundations. But however laudable the actions of a few isolated individuals might be, it is woefully insufficient for changing the entire rationality of a system. Finally, as we have seen, the current monetary system does not allow for the opening-closing of territories, which is critical to social cohesion.

Governance's fourth goal is human development. On this issue, too, the existing system falls woefully short. I am not referring to the issue of poverty because, as we saw in part one, the effects of the monetary and financial system in this regard are ambiguous. One could, for instance, credit it with the rebalancing the world to Asia's advantage. On the other hand, the system demoralizes society, as it destroys trust. The inability to make long-term commitments, with all the resulting risks; the desire to win by being the cleverest; and the reduction of others as well as the biosphere to abstract entities: all of this is the very antithesis of mutual trust. We saw

this in the spring of 2008, when speculative funds raised the price of essential food products. On the one hand, we have players whose great success is totally abstract, given that millions of dollars more or less brings no other satisfaction than that of proving one's cunning; on the other, we have food riots. Instead of trust in others, we have confidence "in the system," as if the system existed on its own, independently of "others." But defiance is contagious, extending to institutions and to their relations with one another. The subprime crisis, however it ends, will have lasting effects because ordinary citizens have discovered not only that major banks behaved irresponsibly, but that they do not even trust one another.<sup>283</sup>

### *Currency, finance and principles of governance*

Finally, governance's fifth goal is the preservation of the interests of future generations. Yet again, the system earns an unimpressive grade. Consider financial derivatives. As bets on the future, they conflate the future with the present. They crunch time. Everything depends on a minute or a trimester. The interests of future generations count for little. This is true even of pension funds, a wonderful tool for long-term planning: they are concerned with my future as a senior, but not of that of my children or grandchildren.

If the system does not achieve governance's goals, does it at least respect its fundamental principles? (Our conclusions, once again, are summarized in the chart in the annex).

In the first place, the system cannot be deemed legitimate. It is led by irresponsible people; it does not obey the fairness principle; it follows procedures that are generally opaque (even for the actors themselves, as we saw with the securitization of subprime mortgages); and it

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<sup>283</sup> Note from December 2008: The second half of 2008 has confirmed this analysis. What we call the "credit crunch" is in fact an expression of generalized distrust.

does not satisfy the principle of least constraint, whether because it objects to it on legal grounds or because it raises hurdles to the organization of local exchanges.

Democracy and citizenship are also poorly accounted for. One of the major challenges of contemporary democracy—and even its very condition of survival—is to provide citizens with the tools for understanding the complex scientific and financial questions of the day upon which our future depends, yet without oversimplifying them.<sup>284</sup> However, the financial system, whether intentionally or not, has cast a veil over its activities, making them technical to the point that they cannot be understood by ordinary citizens or, for that matter, by regulators themselves. Specialists have told me that during the “Basel II” negotiations over the world financial system, even government experts could not follow the details of the debate. The regulations themselves were decided by a small number of key players. Do these players even understand themselves? The inefficiency of internal checks made apparent by people like Jérôme Kerviel, the trader at French bank Société Générale who lost 50 billions euros before being stopped by his supervisors, gives one reason to think otherwise. “Creative accounting” triggered the Enron scandal; “creative finance” set off the subprime crisis. A good democratic rule would be to allow the introduction of new tools only to the extent that they can be understood and evaluated by reasonably educated citizens. “Good” popularization does not turn complicated questions into slogans, but empowers citizens to address the major challenges facing their societies. When will there be a European citizens’ panel on finance?<sup>285</sup> We don’t put steering wheels in the hands of minors. We require young people to pass a test to ensure they know how to control a vehicle. Yet we have no equivalent when it comes to putting the steering wheel of an infinitely more powerful machine into the hands of young traders or bank managers.

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<sup>284</sup> I have discussed this in part one, chapter five, part three.

<sup>285</sup> In chapter four, section two, I touch on this issue while discussing citizens’ panels.

Partnerships between actors bring us back to the idea of long-lasting contracts. Such contracts no longer exist for financial and monetary actors. However, should they wish to, pension and sovereign funds could, in the coming years, become major players through a new social contract negotiated between various societies and even (if I can be permitted to evoke entities lacking juridical personality) between humanity and the planet.

As for the articulation of levels of governance, it is really only practiced by mutual banks and insurance companies.<sup>286</sup> If, as I believe, new monetary and financial tools will lead us to articulate the levels of governance in new ways, the social learning process spanning a half century will prove extremely useful. It will provide the social economy's actors a significant comparative advantage. Will they make the most of it?

#### **4. What Strategy for Change Should Be Pursued? Which Actors Can Help?**

In what follows, I will begin with a general consideration of how various social actors are positioned in relation to finance and currency, before turning to the framework I have proposed for thinking about strategies for change.

##### ***The Position of Different Actors***

I divide actors into four groups: intellectual and symbolic actors (philosophers, religious figures, academics and researchers, the media); social actors (women, people in positions of power, outsiders—this being but a small sampling of people that I found particularly relevant to finance); economic actors (transnational corporations, unions, financial actors, actors in the

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<sup>286</sup> See Étienne Pflimlin (the chairman of Crédit Mutuel), “Les mystères de lagouvernance des banques mutualistes,” speech given at the École de Paris, January 11, 2008. Downloadable at [www.ecole.org](http://www.ecole.org).

solidarity economy); and, finally, regulatory actors (public actors, political leaders and parties, local government, civil society organizations). We shall consider them in this order.

The first group that is relevant to finance consists of philosophical and religious figures. Their perspective is of considerable importance. It is particularly welcome at a time when the ideology of technology and efficiency claims to have resolved the problem of meaning. Five philosophical perspectives deserve mention. The first is the biblical notion of the Jubilee.<sup>287</sup> It stipulates that ever forty-nine years (i.e., seven times seven), the clock must be set back to zero. Jewish slaves were freed. Land and (to use modern terminology) natural resources were returned to their initial owners. True, even in the ancient theocracy of Israel, the Jubilee was never fully implemented. Moreover, non-Jews were denied its benefits and restitution only applied to urban goods. Even so, the concept of the Jubilee is a very powerful one. It is the ethical foundation of inheritance laws: because power leads to more power and wealth to more wealth, society must develop a compensating mechanism. This was the principle behind Jubilee 2000, an international coalition of movements from over forty countries which, in the late nineties, advocated cancelling the Third World's debt. In my view, its analysis was not always as sharp as it might have been. It also took it a while to make the very legitimacy of the debt its primary focus. Even so, the Jubilee concept made it possible to distinguish between debts that were either incurred by democratic countries or that promoted development, and those that did neither. Whatever its limitations, the movement had an undeniable impact. It played an important role in advancing the movement to restructure and partially cancel the Third World's debt.

The second perspective is that of Greek philosophy. Aristotle distinguished *oekonomics* (the art of making balanced use of natural resources) from *chrematistics* (which is enrichment for its own sake). This distinction remains relevant to differentiating exchange from hoarding.

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<sup>287</sup> Leviticus 25: 8-24.

The third outlook comes from Christianity. It has always been riddled with contradictions, many of which are still our own. In particular, it is marked by the tension between solidarity and divine time, on the one hand, and economic efficiency and human time, on the other. Two historical turning points are important in this regard: first, the mendicant orders of the thirteenth century, when the Middle Ages turned to human time and efficiency<sup>288</sup>; and, second, Protestantism and Calvin. Calvin draws a clear distinction between personal loans and participating in investments and risky ventures, in which receiving one's share of profits is justified: once again, we have the distinction between money-as-means-of-exchange and money-as-investment.

A fourth perspective comes from Hans Jonas, who proposed the expanded definition of responsibility that we have made our own. Understood in this sense, the financial world's responsibility extends to the impact that finance has on society's values.

The final perspective is that of Islam, which is even more categorical than Christianity in forbidding interest-based loans. Muslim banks, however, have proven successful in reconciling (in a manner reminiscent of Calvin) heaven and earth.

What I find striking about contemporary religious leaders is that, even though Christian movements are often at the forefront of the push for financial ethics, they have a difficult time articulating a comprehensive intellectual alternative to currency and finance. One almost gets the impression that they find plunging into the mysteries of the financial and monetary system a sign of compromise. An economist like Paul Dembinski, who teaches financial ethics at the Catholic Institute of Paris, is nonetheless representative of a new generation, which no longer confines itself to a purely moral posture of denunciation (which is as typical of socialists as of Catholics),

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<sup>288</sup> Jacques Le Goff, *Un autre Moyen Âge*, *op. cit.*

but which seeks rather to understand the system from within. This is indispensable if one wants to change it.

As for academics and researchers, they are often tempted to run with the hare and hunt with the hounds. Their situation is similar to that of the energy sector, in which only energy-producing companies can offer energy specialists promising careers.<sup>289</sup> It can be seen in the training of mathematicians: the new technologies arising from risk management and information encryption have become two of their most important career options, and are far more lucrative than research which, because it has no immediate financial or economic applications, is often deemed esoteric.<sup>290</sup> Finance's sophistication lends itself to specialized disciplines, especially when they are likely to lead students to good jobs. That said, it is not my intention to review *all* critical voices on this issue, as they are dispersed across many different sects. This could, however, change.

More troubling is the position of the media. The role that the media plays in disseminating detailed stock-market information belongs to a broader effort of instilling into our society with financial values across the board. As I see it, the greatest problem is ignorance, which is the mother of conformism and ready-made thinking. In France, a magazine like *Alternatives économiques*, which has successfully positioned itself midway between militancy and professionalism, fulfills a genuine public service, contrary to the audiovisual media (even when publicly owned). It should be mandatory for journalists to receive training in finance and financial ethics.

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<sup>289</sup> See part one, chapter four.

<sup>290</sup> Note from December 2008: The second semester of 2008 was brutal for specialists in mathematical finance. We were unsurprised witnesses to the kinds of intellectual contortions typical of such situations: "science is neutral, only its applications are not"; "financial mathematics is by definition useful, but not when used by irresponsible banks," etc.

To what extent is our society able to resist these trends and make new proposals? Consider the troubling example of movement for women's rights. Most feminist movements emphasize male domination of women, particularly in the economic realm: their subordinate place in the labor market, the lack of a fair way of evaluating what domestic work's contribution to family and national prosperity, difficult access to credit—these things are all perfectly true. But they overlook an important feature of our society: the fact that women own a significant share of capital. In Europe, a majority of capital is owned by women, for obvious sociological and demographic reasons: inheritances are now split equally between men and women, but women outlive men by six or seven years. Consequently, elderly women would appear to control an important share of capital. How can one reconcile this fact with a critique of women's disempowerment—while also claiming that money makes the world go round? How can “powerless” groups like women be simultaneously gripping power's levers? This apparent paradox can be easily explained if one introduces a third, cultural factor into the equation: women ask men to manage their assets. This problem belongs to a cultural rather than a strictly financial realm. If the women's movement were to address this contradiction between property and power, and thus women's role in asset management, it might have a considerable impact, particularly if they were able to propose an alternative grounded in “feminine” values.

The second interesting social group to consider is those in power. “Elites,” as they tend to call themselves, strike me as unlikely, for the time being, to offer innovative thinking about money and finance. First, because they share the ethos of efficiency that finance embraces. Second, because financialization puts economic elites on ejectable seats, which makes them careful to avoid being excommunicated from their own milieu. George Soros in the United States and Michel Albert or Jean Peyrelevade in France are fortunate exceptions. But it is worth noting



that they usually start publishing books only once they have left business. Given the constant pressure that bank and company presidents face, this is understandable. But it weakens the impact of what they have to say: in these circles, you lose your influence when you are no longer in business. During the time of the Iron Curtain, only once you “made it to the West” did you speak freely. What we need is a group of former top financial executives who have the guts to say that the emperor has no clothes and that the time has come to take a new path.

The excluded, finally, are particularly concerned with the way in which money and finance operate. It is with good reason that Jean-Michel Servet speaks, in this regard, of “financial exclusion,” and of not reducing it to access to credit.<sup>291</sup> Exclusion can also refer to the situation of southern countries in relation to the management of savings (when they exist) and risk, as when they are deprived of access to insurance. It is also in this milieu that many solidarity economy experiments are being pursued. It is one of the realms that has the most to gain from a reinvention of monetary and financial systems at a local level.

I now turn to economic actors. We can hope for a great deal, in upcoming years, from new thinking among trade-unions. Unions were forced to endorse, whatever one chooses to call them, pension funds and individual retirement accounts. In any event, they have not been able to ignore the decisive role that these funds play in controlling the productive apparatus. They face a radical contradiction: on the one hand, with the accelerated pace of financialization, companies are under increasing pressure from financial capital, which makes work increasingly precarious; on the other, employee pension funds are currently among the primary agents of the process of financialization. The desire to resolve this contradiction could play a decisive role in encouraging finance, with some pressure from pension funds, to once again adopt a long-term perspective, which is, after all, their true vocation. Unions might also find allies among managers within

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<sup>291</sup> Jean-Michel Servet, “Monnaie et esprits du don,” *op. cit.*

major corporations. Stock options have bought their complicity, while simultaneously isolating them within corporations as a whole. These sectors generally gain little from their subordination to nomadic finance, which cares as a little about the reality of productive processes as it does of the human, technological, and social complexity or merging and tearing apart large organizations.

I see the possibility of new alliance, based on the concept of global supply chains, between investment funds, management structures, and unions.

It is even possible to imagine financial actors themselves making positive changes. The subprime crisis proved that the financial world was incapable of disciplining itself, contrary to its own claims. The Association of Economists for Peace and Security did a study with the IRE in early 2008, in which it consulted economists specializing in financial questions on how to rethink the international monetary system. Many individual proposals were shot down by others, but one received almost unanimous support: the return to greater international public regulation of the financial system. Even within the financial world, based on the little I know of it, I have seen unease stemming from the kind of schizophrenia I have mentioned earlier—the tension between day-to-day behavior and innermost convictions. True, the financial world does have its share of unscrupulous and brainless thugs; but even so, many in its midst suffer from having to endlessly recite a mantra in which they no longer believe. Without pushing the analogy too far, consider the implosion of the Communist Bloc, which was hastened by the fact that standardized speech hid the fact that consent was typically *pro forma*. Most people have become used to distinguishing what they say in public from their personal convictions. Such a disconnection exists in the current system as well. Moreover, two actors, pension funds and sovereign funds, will soon have an interest in a new approach.

To this must be added the difference between various financial markets. Here again, the subprime crisis will probably have lasting effects, for it has desacralized markets like those of London and New York, facilitating the economy's gravitational shift from Europe and North American to Asia. In spring 2008, the Indian economist Ramgopal Agarwala, published a book entitled: *Towards an Asian 'Bretton Woods' for Restructuring of the Regional Financial Architecture*.<sup>292</sup> The cavalier, scornful way in which American leaders and their backers at the International Monetary Fund handled the Asian crisis of 1997-1998 left deep scars. Paul Blustein's book mentioned by Agarwala<sup>293</sup> explains that American leaders believed they could take advantage of the crisis to reaffirm the superiority of their brand of capitalism. Asian leaders concluded that they would have to rely on themselves. Today, they have the ability to do so. The American empire no longer has the means to remain standing. We are heading—and this is a positive development—towards global governance based major world regions and their relations, a postmodern conception of the state in which the European Union has led the way. The implementation of regional architectures will provide the first occasion since Bretton Woods to start the stopwatch over again.<sup>294</sup>

Actors in the informal economy—the social and solidarity economy—are, for their part, in good shape. Until recently they appeared to be dying out in the face of global competition. But new social challenges have provided these movements with an historic opportunity to articulate a comprehensive alternative in conjunction with actor-territories. They are accustomed to uniting and to managing economic and social goals simultaneously. They have a cultural advantage. The

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<sup>292</sup> . Ramgopal Agarwala, "Towards an Asian 'Bretton Woods' for Restructuring of the Regional Financial Architecture", in *Research and information system for developing countries (RIS)*, New Dehli, mars 2008.

<sup>293</sup> Paul Blustein, *The Chastening, Inside the Crisis that Rocked the Global Financial System and Humbled the IMF*, Public Affairs, New York, 2001.

<sup>294</sup> Note from December 2008: Pressed by circumstances, major power leaders cobbled together in November 2008 a G20, in order to remain within the framework of the G7 while including emergent economies. But it was only a shotgun marriage: sooner or later, there will have to be negotiations across the world's major regions.

solidarity economy movement has, for its part, often piloted local initiatives in recycling textiles, waste, household appliances, and computer materials. All of this is, of course, a far cry from a general reform of the economic and monetary system. Still, the will for change has begun to manifest itself. These movements will not settle for reforms at the margin indefinitely.

Among civil society actors, NGOs are at the vanguard. They spearheaded initiatives to cancel the debts of poor countries and in favor of solidarity financing. The two dangers that these organizations face are a tendency to be overly simplistic and a faith in miracle solutions. I call the latter “Yunusmania.” But in any case, there is, at an international level, a network that is capable of unity and which can connect questions about meaning (religion, philosophy, and politics) to a technical understanding of real-world problems. Moreover, this network can turn to financial actors which, though suffering from schizophrenia as said above, can nevertheless provide it with useful information.

Similarly, the globalization of currency and finance will lead international institutions to take on new roles. Personally, for example, I have participated in the UNEP “innovative finance” workgroup’s thinking about responsible investment.<sup>295</sup> I have been able to witness first-hand the power of convocation that such groups can wield in relation to major actors like banks, insurance companies, corporations, and pension funds. It is perhaps through peripheral institutions of this kind that global thinking will develop.

As for states and political parties, complementary currencies constitute an interesting test. If countries like Germany and Japan are open to the development of such currencies, centralized countries like France tend to be quite hostile. Alliances with local government networks might get things moving. An interesting case (which I will discuss at length later) is the British Labor Party. To my knowledge, David Miliband, one of New Labor’s rising stars, was the first

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<sup>295</sup> See [www.unepfi.org](http://www.unepfi.org).

environment minister to put forth the idea of a carbon currency in the form of individual negotiable quotas—an idea that overlaps with my own thoughts about vector-currencies. Though these carbon currencies have yet to be introduced, they suggest an emergent interest in genuine monetary and financial alternatives.

The lesson to be drawn from this still quite varied landscape is that the “TINA” syndrome is behind us. Unexpected coalitions may be born in upcoming years that will seek to conceptualize and implement global alternatives that even ten years ago would have been unthinkable.

### ***Strategies for Change: Some Interpretative Frameworks***

What then must be done to implement a genuine strategy for change? The chart in the annex offers a few suggestions. In the chart, I indicate trends that are already headed in the right direction with a plus sign and put an asterisk by those that are obstacles. The filled-in and the empty spaces make the chart particularly interesting.

We are not short on innovators and innovations. They hail from several different horizons: the development of electronic currency, with secure online payments and the diffusion of electronic billfolds; the growing role of “index funds” (an asset product based on a basket of some or all of the publicly-traded stocks and bonds in a particular world region, or in the world itself); the rise of ethical funds; experimentation in complementary currencies; microcredit; and the solidarity finance movement. None of these innovations is a miracle solution, but they all are worthy of interest. In keeping with the logic of innovation, most of these ideas were developed independently of one another, often at a local level and with no connection to a broader vision of the future.

As for theory, I have already mentioned the problem posed by the splintering of disciplines and the fragmentation of heterodox schools of thought. Moreover, to be credible and to obtain necessary information, theorists need recognition by universities as well as by the finance and business worlds. The latter, however, tend by their very nature to be conformist. At the same time, rethinking the monetary and financial system on new bases requires a radical break. In the field of physics, there is a famous picture taken in Brussels at Solvay Institute in 1911. It shows, in the same room, all the scientists who would revolutionize physics over the course of the twentieth century: one can see Albert Einstein, Marie Curie, Max Planck, Ernest Rutherford, the mathematician Henri Poincaré, Paul Dirac, etc. The only equivalent of the Solvay Congress in the monetary realm was the 1944 Bretton Woods conference, which laid the groundwork for the postwar monetary world. This is why we always hear ritual invocations of a “new Bretton Woods.” Meanwhile, partisans and opponents of globalization exchange insults, but this does little to move things forward. Thinking about finance, currency, and energy usually occurs in separate realms. In the late eighties, our foundation was besieged by “Cosinus scholars,” all seeking our support to develop a new theory of money. It was quite embarrassing. On the one hand, we took seriously, as a symptom, the existence of all these theories, which testified to the inadequacy of current theories. But at the same time, it was difficult for us to form an opinion on the merits of these various initiatives. Each time that we consulted specialists, who, in principle, appeared to be better qualified than we were to judge them, the projects were returned to us with failing marks. This was inevitable, I am tempted to say, because specialists—people who are presumed to be serious—had little inclination for intellectual frolicking.

As for generalizers, international networks of innovators have been gradually established around issues ranging from complementary currencies to solidarity finance. They play a major

role in the rapid, epidemic-like diffusion of new ideas. But these networks work along the margins, not at the heart, of the system. Major actors in finance, such as large commercial and investment banks and major pension funds, hew to the conformist line, hypnotized by their own sophistication. This is why it is so important to grasp the importance of the subprime crisis. In this crisis, unlike in past ones (such as the bursting of the internet bubble or the Mexican and Asian crises of the 1990s), the hard core of the banking and financial apparatus was hit: the United States and most major international banks. This is perhaps an historic opportunity for major financial and monetary actors to consider the need for deep reform.<sup>296</sup>

Another weakness pertains to regulators who operate at a national and thus at an inadequate level, given the lack of global governance worthy of its name. They often find themselves surpassed by the financial sector's technical sophistication.

If one now turns to the levels of change, one observes that all the rubrics of the chart contain one or two "dittos." At the local level, we find territorialized experiences; at the national level, the emergence of new approaches to currency in Germany and Japan; at the regional level, the creation of the Euro; and, at the global level, the emergence of sovereign wealth funds as important new world actors that are capable of investing for the long-term and the need to renegotiate the Basel II accords following the subprime crisis. Reading the newspapers in the spring and summer of 2008, one is struck by the difficulties Western political and economic circles have in adopting a clear position towards sovereign wealth funds. Their confusion is justified. The appearance of these funds on the international public scene is, of course, tied to the oil bonanza, but it is also the result of a new strategy. Until now, these funds were as discrete as

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<sup>296</sup> Note from December 2008: Though the French president waxed lyrical about the need to recast capitalism, the crisis seems, for now, to have led to the rescue of the existing system. The psychological effect of the failure of Lehman Brothers was such that political leaders became fixated on one idea: avoiding the system's implosion. Many called for a new Bretton Woods; yet the original one, in 1944, came fifteen years after the beginning of the financial crisis of 1929 and was based notably on the idea of John Maynard Keynes.

they could be, recycling with persistence and good cheer their surplus liquidity into the broader financial market, trusting bankers and Western states put it to good use. This is particularly evident in Asia's massive investment in US treasury bonds. The change in sovereign wealth funds' strategy, as modest as it still is, can elicit four different reactions, two negative, and two positive.

The instinctive negative reaction is to prevent foreign sovereign wealth funds from taking control of strategic activities. But this kind of argument tends to stick its foot in its mouth. What exactly are "strategic activities" in an age in which privatization is constantly celebrated, to the point that even combat missions in Iraq are assigned to private actors? And how exactly does control by a foreign sovereign wealth fund differ from control by private transnational actors? The second negative reaction is a result of the sudden awareness that a great shift in power from the West to Asia is underway and occurring far more quickly than previously anticipated.

On the positive side, almost everyone is, in the short run, relieved that sovereign wealth funds rushed to the rescue of major financial institutions that were in desperate need of recapitalization. We might prefer that this not give them the right to vote—but one cannot ask for everything. Over the somewhat longer term, there is growing recognition of the importance of funds that are capable of making long-term commitments. Perhaps this will encourage Western countries to consider the best way to use those other "savings silos" (to borrow Paul Dembinski's term) that are pension funds. The Norwegian sovereign wealth fund, which is a kind of benchmark for sovereign funds, was, after all, conceived to ensure that Norway would be prosperous after the depletion of North Sea oil deposits, just as pension funds seek to maintain our lifestyle once our productive years have ended. Sovereign wealth funds plan for "later": once oil is depleted, in the case of funds from oil-producing states, and once demographic transitions



are complete, in the case of Chinese and Japanese funds. This means that we have at our disposal, if we group sovereign wealth funds and pension funds together, a means to conduct long-term investment strategies enabling a transition to a sustainable society.

Let us now consider the stages of change. The first stage is awareness. It is quite real and widespread, as we have seen throughout this chapter. Many people sense that all is not right, that the primary purpose of currency and finance has been betrayed, and that technological change is out of control. The real obstacles are the major actors and the ways we think. The vague term of “new monetary consensus”<sup>297</sup> provided ready-made thought. The financial system’s actors, flush with their own self-importance, were convinced that they ran no risk in mounting the galloping horse of new technology. But now, they find themselves flat on the ground: this should quash their arrogance, if only for a bit.

However—and this is my second point—the widespread awareness that all is not well has not, as of yet, resulted in a shared vision. This is the result of the fragmentary character of innovations, but also of the lack of democratic and collective spaces in which such a common vision could be elaborated. We are all tinkering in our own little corner—an inauspicious plan for renewing our habits of thought and collective strategy. In late 2008, the idea of a “New Deal” (to borrow Franklin D. Roosevelt’s famous phrase) began to surface in Barack Obama’s campaign. This is symptomatic of the desire to start everything anew.<sup>298</sup>

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<sup>297</sup> James K. Galbraith, “La fin du nouveau consensus monétaire. La crise financière et l’héritage de Milton Friedman,” *op. cit.*

<sup>298</sup> Note from December 2008: The slogan lost momentum in the United States because elites there know that it was not the New Deal that pulled the United States out of the economic mass into which they had been dragged since 1929, but rather the Second World War. The idea of a “Green New Deal” is far more appealing, provided it is not limited to investments, even if they are “green.”

If we succeeded in articulating a common vision for change, where would we find partners for change? A consideration of the various actors' positions leaves me reasonably optimistic: coalitions that were, until recently, highly unlikely have now become possible.

As for the first steps towards change, they have been suggested throughout these pages. They are not difficult to imagine once a common vision has emerged. I will now attempt to sketch the broad lines of this vision. What are its key aspects? In this chapter, I have been leisurely collecting intuitions, convictions, observations and proposals. Forging a shared vision means arranging them into bouquets.

I propose to do so by reorganizing our understanding of the relationship between money, finance, and energy. Traditionally, one begins with money and its three functions—as a unit of account, as a medium of exchange, and as a store of value—before considering finance or energy. As I see it, this approach has ceased to be valid. Savings, for instance, no longer consist of hoarded money but of financial products. Fossil fuel has become a *de facto* currency.

We need two bouquets. The first consists of tools for managing exchange. It incorporates two of money's functions: that of a unit of account and that of a medium of exchange. The second consists of tools for managing time. It adopts the perspective of savers, whose primary concern is that their savings do not decline in value. It thus pertains to money's traditional function as a store of value. This bouquet also adopts the perspective of investment and of long-term commitments, which are necessary both for developing the capacities required to produce wealth and well-being and for making the transition from our current economic model, based on "bicycle" equilibrium—it falls over when it stops moving—to a sustainable society.

The process of producing goods and services, we have seen, employs seven ingredients: four kinds of capital (tangible, intangible, human, and natural) and three kinds of resources

(labor, consumed materials, and information). I call my first bouquet, which deals with exchange flows, “vector currency.” It considers capital as a given, which in the short term it is. It is also concerned with the mobilization and transformation of consumed resources in the production process of goods and services that society demands. It pertains both to community bonds and to the respective place of labor, fossil energy, and materials in the satisfaction of social needs.

The second bouquet consists of the means for preserving and developing different kinds of capital. More generally, its goal is to foster society’s capacity to promote well-being over the long run while preserving equilibrium between society and the biosphere. It may sound like I am breaking down an open door. Isn’t this what most individuals, families, and companies already do when they differentiate between current costs and the costs of overhead and long-term investments? Of course. But reconsidering such commonsensical questions leads us to challenging questions and new ideas.

One aspect of the shift that we need deserves to be mentioned upfront; it concerns the status of time. In part one,<sup>299</sup> I noted that classic economics postulates that time is fungible, that the short term and the long term are interchangeable. The development of financial markets has turned this flattening of time into reality. This is particularly true in bond markets. If I buy a thirty-year bond, I can sell it on the market tomorrow. It is an asset that is just as liquid as a one-month loan or a bundle of currencies. I maintain, however, that time is not fungible, for two very different reasons. First, time is irreversible. Change over time cannot be compressed. If I choose today not to undertake a long-term transformation, it will definitely be postponed. If I undertake it too late, then my mistake is irreparable. The most obvious example is climate change. We can limit our future emissions of greenhouse gases, but we cannot stop climate change resulting from past emissions. The other, equally important reason why time is not fungible is the need to take

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<sup>299</sup> See chapter 3, part 3.

into account an imperative norm of international law, a *jus cogens*, that applies to all actors whosoever they might be: the protection of the balance between humanity and the biosphere and the protection of future generations. In other words, it is my choice whether I put aside money at present for my old age, but I do not have the right to prefer my own personal interest to that of humanity's future.

The hypothesis that time is fungible, which is at the basis of modern finance, is ultimately just another instance of economics' claim that all ends can be justified on its terms. To treat as separate the question of exchange (my first bouquet) and that of investment is a way of reaffirming that time is not fungible.

Let me reiterate one last time that my proposals are not intended as “canned” or “ready-made” thinking. Not all of them are fully developed. This is how I want it to be: for in a “shared vision”, there is the word “vision,” but also the idea that it is “shared.” At the stage when strategies for change are being considered, it is essential that we bring to the table the products of our own imaginations, which at the outset are distinct, informed as they are by our own particular experiences. But gradually, we enrich one another and come together around a project, like musicians in an orchestra, each of whom has a distinct sound, rather than like troops marching at a fixed and rhythmic pace.

## **5. Vector Currencies**

Let me begin with a quick reminder for those who are bad at math. They say that space has three dimensions: left-right, forwards-backwards, up-down. With these dimensions, every point in space can be precisely located: three steps to the right, two steps forwards, one step up, etc. Now if I want, I can add up these steps—i.e., three steps plus two steps plus one equals six;

but this would be completely meaningless, just as it would be meaningless to speak of adding up cabbages or carrots. My direction in space is identified not by one number (for instance, “6”) but by a series of numbers (3, 2, 1). This series is known as a “vector.” A vector refers to all possible points in what we call “vector space.” If I am at the center of this space, every point within it can be defined precisely by three numbers, known as coordinates. By saying “(36,000; -400; -12),” I clearly identify a single point in my space. A map is a two-dimensional space. On a city map, for instance, I can identify the North-South and East-West coordinates of my destination, and then find the way to get there. This kind of vectorial representation is useful in daily life not only when I have somewhere to go, but also whenever I need to combine things that are not commensurable—in other words, things that cannot be reduced to a single dimension. And there are a lot of dimensions.

Take, for instance, a plate of spaghetti bolognese: its dimensions are countless. There is the physical composition of the plate; the pasta, meat, and tomatoes; particular quantities of salt, water (to boil the pasta), and cooking time; the chemical composition (lipids, proteins, etc.); and even opinions concerning its taste, ranked on a scale from “delicious” to “terrible.” All of these dimensions can be found in the production and consumption of spaghetti bolognese. We integrate them into our daily actions, without worrying too much about it or finding it unreasonably complicated. Recipe books reduce these many dimensions to a handful: easy-difficult, quick-long, cheap-pricey, or filling-light.

The point of these details is to demonstrate that what I call “vectorial currency” is not some new, incredibly complicated idea, but, on the contrary, a return to the oeconomy of the real—a shift away from arid monetary considerations to concrete questions like getting around a city or making a plate of spaghetti.

Let us consider how a family consumes a series of goods and services. Once I have carefully traced the entire process through which these goods and services are produced, using counting units that do not immediately distort reality by reducing everything to a monetary equivalent, it becomes apparent that goods and services have multiple dimensions: an amount of energy used, a quantity of heat and gas that was reused, another quantity that was released into the atmosphere, and so on. What quantity and what quality of labor was employed, and how much value was added over the entire global supply chain? What is the relative share of local as opposed to imported labor? Is the product new, used, or reconditioned? Was there a way to provide the same service with less material? What kinds of capital were employed? And so on. All of this data, all of these incommensurable dimensions can be grasped only if one has a suitable counting unit and a solid understanding both of the global supply chain and of the relevant territory's metabolism. Any exchange implies double-entry accounting—i.e., one party's asset is another's liability—in relation to a large number of different actors, just as my liabilities in my family budget are the assets of many providers.

If I consider a list of the ingredients of the good, or service, that I happen to consume, I notice that they belong to different categories of goods and services (as defined above): immaterial capital is a first-category good; water and energy, a second-category good; and labor, a third-category good. My package of spaghetti is for the most part made up of third-category goods: it is divided when shared and can be produced in limitless quantities thanks to human ingeniousness, which determines agricultural productivity, the quality of machines, and the efficiency of human labor and of the distribution system. However, this package of spaghetti will also have incorporated, through its production process, different categories of goods and

services, each corresponding to a specific governance regime. (Still following? If not, take several steps backwards and start over again).

A final remark: incorporated labor may come from different communities, whose cohesion I contribute to preserving through continuous systems of exchange. These include the “world community,” prefigured by the globalization of trade; the “European community” (my spaghetti is “Made in Italy”); and the community of customeres, maintained by membership cards functioning as a kind of quasi-currency. I might also include the community of people who enjoy spaghetti bolognaise, with whom I might organize group purchases of spaghetti. Finally and most importantly, there are “territorial communities,” which are established and preserved by local exchanges of labor, information, skills, experience, energy, etc. Just as on Facebook I can belong both to a community of Harry Potter fans and to one for *pétanque* players, each community can, as I have explained, manage these exchanges through its own special currency. This currency is nothing more than the recording in a single registry of all the transactions occurring in its midst, as the SWIFT system has done for bank transactions since 1973. This is the basis of all complementary currencies that have developed on all continents, many of which already use cards with memory chips.<sup>300</sup> Special communities also have concrete economic implications. For example, Bernard Lietaer describes the fascinating Japanese experiment known as “*Fureai Kippu*”<sup>301</sup>—literally, a “cordial relationship ticket”—that was launched in 1995 by the Sawayaka Welfare Foundation. According to this system, the time I devote to a senior citizen is recorded in a savings account that allows me to “acquire” the same care from

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<sup>300</sup> An interesting review of these currencies can be found in *Currency Systems for Global Sustainable Development*, August 2007, <http://money.socioeco.org.fr>. The reader will find on this site many in-depth analyses of complementary currencies.

<sup>301</sup> Bernard Lietaer, *Mutations mondiales, crises et innovations monétaires*.

neighbors of my elderly mother, who lives on the other side of Japan, if they belong to the same community of care exchange. How wonderful is that?

But how can the variety of dimensions that exchange implies be transformed into a method of payment? The latter must be a compromise between the need to “take everything into account” and the fact that I may need to buy a packet of spaghetti because it is almost dinner time and my bolognaise sauce needs two hours to simmer. For this, two things are required: a simple method of payment and a restricted number of dimensions. Consider the idea of an electronic billfold. A memory-chip card record many other dimensions besides just euros. The accounting notions of liabilities and assets can also be used to track many different dimensions. This, for instance, is what my membership card does when it subtracts my expense while crediting me with loyalty points. As for restricting the number of dimensions, it leads us to focus on four in particular: labor in one’s local community, which for simplicity’s sake I will call “local labor”; external labor; energy; and other material resources.

So I find myself with an electronic billfold and in a four-dimensional vectorial space—I find myself, in short, with vectorial currency. Each of these dimensions corresponds, if you will, to a particular type of currency with its own logic. Each must respond to the three inherent anxieties associated with monetary exchange: the risk of counterfeits (i.e., that I be paid in monkey money); the risk of rapid declines in value; and the risk that vendors will refuse to accept it. For example, if my card has credits in complementary currency, denominated in hours of labor, or in a complementary currency issued on at the local level, vendors must still accept that all or part of the labor incorporated into the goods they sell me be paid in this currency. As soon as a “local actor” is created, with a territorial oeconomic agency managing the system of local exchange, a compensation fund can be created to establish fixed equivalencies over a given



period—for example, one year—between a complementary currency and (say) euros, allowing local providers to reconvert my payment in local labor into euros, or me to refill my billfold in local labor credits through a payment in euros.<sup>302</sup> The function of the first dimension is thus to intensify exchanges, particularly on the territorial scale, to promoting a community’s potential and talents, and to reinforce oeconomy’s legitimacy by applying the principle of the least constraint.

As became clear in our example of spaghetti bolognaise, we must remind ourselves of how ordinary it is to use several different currencies. In 1998, Jérôme Blanc of the Walras Center found “for the period between 1988 and 1996, 465 recorded examples of the use of several parallel currencies in 136 world states ... It is reasonable to think,” he wrote, “that today, in all countries, parallel instruments exist alongside national currencies.”<sup>303</sup>

When one speaks of a parallel currency, one often thinks of small-scale and activist-initiated experiences like LETS (local exchange trading systems); however, the use of currencies other than national ones is much more common, notably during periods of hyperinflation. This occurred, for instance, at one stage of the “dollarization” of Latin America. “Restaurant checks” or transport company’s “miles” functions as counting units and payment methods, which are monetary functions, even if they only allow for the purchase of a particular type of goods and services. In addition to *Fureai Kippu* (see above), which involves thousands of members, the Swiss WIR Bank has also been a very instructive experience. Created in 1934, it is the ancestor of contemporary complementary currencies. It is an internal exchange currency used by Swiss companies, first created to deal with the currency shortages following the 1929 crash. Today the WIR Bank has 60,000 members and generates annual exchanges of nearly 2 billion Swiss

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<sup>302</sup> This “equivalence” with official currency is found in most experiences of complementary money.

<sup>303</sup> Jérôme Blanc, “Les monnaies parallèles : évaluation du phénomène et enjeux théoriques.” Centre Auguste et Léon Walras, April 21, 1998.

francs.<sup>304</sup> Where the WIR Bank and *Fureai Kippu* are similar is that, unlike the “melting currency” of Gesell, the primary aims of which is to speed up exchange flows, they manage exchange over time: with *Fureai Kippu*,<sup>305</sup> one can keep one’s “credit” until the day one requires one’s own care; and the WIR Bank allows members to make each other loans.

To mention local currency as the first dimension of vectorial currency is thus not, in itself, revolutionary. What is revolutionary, if it even makes sense to use this term, is to turn complementary currencies into an instrument of common law and to give them more importance—to make of it a currency as important and familiar in the long run as the euro or the dollar. We have entered an age in which the service sector constitutes the largest portion of the economy. Many of these services are delivered locally. The trend towards the “dematerialization” of the economy (which we have already discussed) reinforces this tendency, as it aims to substitute, whenever possible, services for goods. The diffusion of information technology and the Internet, which has contributed to fusing currency and finance, can also contribute to organizing local exchanges. As for the aging of the population, which has, along with the rise of individualism, created “savings silos” (i.e., pension funds), it can just as easily lead in the opposite direction, becoming, as in Japan, a powerful force in the development of territorialized systems of assistance to the elderly. The financial crisis of retirement systems will undoubtedly lead to a search for alternatives. Many elderly people are becoming aware that the counterpart to the independence they achieved through comfortable retirement benefits is the isolation they face once they are no longer mobile. Finally, the continued aging of the population, and particularly the rising number of the “oldest of the old,” will lead territorially-

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<sup>304</sup> See the article “WIR Bank” on Wikipedia.

<sup>305</sup> See the “Fureai Kippu” article on Wikipedia.

based “young” retirees to care for their “own” seniors, making it urgent that one abandon the tendency to rely exclusively on the employed population for financing care for the elderly.

As we see, the same technical and demographic factors producing abstract “financialization” and (monetary) transactions can thus also foster territorialization and (social) relationships.

Only the veil of ignorance that currently cloaks territorial metabolisms still hides from us the importance of these stakes. The first dimension of vectorial currency will contribute precisely to tearing down this veil over time. The attitude of local authorities themselves will prove decisive. Indeed, a very important share of local public expenditures is devoted to public services. One can thus imagine a virtuous circle in which authorities would accept that a share of local taxes would be paid in a local currency, and an equivalent share of public services would also be paid for in a local currency. The effect of generalizing this practice would be immediate. Remember that, not too long ago, debit cards were not particularly widespread—until, that is, the day when gas stations began to accept them. The contagion was immediate.

I now turn to the second dimension of vectorial currency: the payment of labor performed outside a territory. This second dimension must necessarily be managed through an internationally recognized currency. The central question here is the predictability of this currency’s value. Economic activity that takes into account the long term depends on the overall predictability of the evolution of various currencies. Is it possible today to return to the spirit of Bretton Woods, either by reconsidering Keynes’ idea of a new world currency, or by returning to fixed exchange rates between major currencies? This was debated in June 2008 at a seminar organized by the IRE and EPS (see above). It was not possible to arrive at a consensus concerning the means, political feasibility, or advisability of bringing greater stability back to the exchange system. In my view, the necessity of doing so is nonetheless clear. First, uncertainty

profits financiers at the expense of companies producing goods and services that are useful to society. The latter gain nothing when their profits depend primarily on their ability to manage uncertainties tied to financial investments, rather than on their ability to produce useful goods. In my professional life, I have observed that when the future of a company depends on financial juggling or the art of corruption, the entire company rots at its core. All the codes of conduct in the world can do nothing to change this. In this situation, “hidden qualifications” reward cleverness and underhandedness at the expense of competence. Additionally, instability benefits the best informed and the most mobile. This place poor countries and small actors at a disadvantage.

What are the solutions? In the seminar mentioned above, there was one point on which all agreed: the impossibility of returning to the previous status quo, in which the dollar was the de facto international currency and in which the expansion of the monetary mass denominated in dollars made Americans “consumers of the last resort” and the guarantors of global growth. The relative size of the United States in the world economy—barely a quarter of the global GDP—is now too small for it to still be able to set the tone. The relative decline of American power has until now been compensated by the credibility of its financial profile. This moral credit will probably be damaged for some time by the subprime crisis. Finally, private and public debt in the United States and surpluses held in dollars by Asian countries are now too great for their growth to continue without being a constant systemic threat. Even so, the United States remains a leader, and there is little chance for a global initiative seeking to renegotiate the global financial system to succeed unless it takes the lead. This will be one of the historic challenges faced by the American administration that succeeds Bush, and a possible aspect of the “New New Deal” to which I earlier alluded. In any case, the status quo is unacceptable; it must change. But in what

direction? Three paths—which are more complementary than mutually exclusive—must be explored.

The first is to return to a better way of regulating capital flows—currency and finance now being inseparable, as we have seen. Deregulation is no longer fashionable. In the Asian crisis at the end of the nineties, the countries that maintained control over their capital flows—China and India—survived the best. The need for greater public regulation is also a main lesson of the subprime crisis.

The second path is to head towards a federated global monetary system, founded on cooperation between major world regions. Each world region would have a standard currency that would be tied to others through a regional monetary “snake,” like that of the old European Monetary System, which preceded the euro; between regional currencies, there would be fixed exchange rates, which would be regularly reassessed through a Bretton Woods-like system. This would be a way, if not to return to the fixed rates of Bretton Woods, to at least limit fluctuations between currencies.

But who today is in a position to convene a new Bretton Woods? It could be the G20, which is getting more and more attention. Beginning with the G8 session of the summer of 2008, it became evident that this self-appointed directorate, which at the outset was only a “G7,” was useless unless China and India were present. Another option is that the International Monetary Fund (IMF) could summon a conference of the world’s major regions, i.e. the United States, the European Union, China, and India. The IMF was born at Bretton Woods and must, in any event, redefine its purpose.

It could launch a joint initiative with the World Trade Organization (WTO), since the fact that both trade and currency now operate on a global scale makes them inseparable. It is also

possible to consider a multiparty initiative including OPEC as well as major pension and sovereign funds.<sup>306</sup>

A third, more difficult task, also merits consideration. It involves creating from scratch a “physical” world currency (or global reference currency), consisting of a bundle of commodities (oil, wheat, copper, etc.), which would, in a sense, be a substitute for the old gold standard. Bernard Lietaer, the strongest supporter of this idea, calls this reference currency “Terra.” I refer the reader to his books, particularly *The Future of Money*, for the full argument.<sup>307</sup> I don’t agree with everything Lietaer says. However, since he wrote the book, I now see three new arguments that justify his thesis. The first is that oil is now fully integrated into the financial and monetary system. I do not mean to say that “Terra” actually already exists, but simply that there is no longer anything preventing all international commercial exchanges from being denominated in Tons of Oil Equivalent (TOE).

The second argument is more important: if we want to make speculation on raw materials such as oil, wheat, copper, etc., less attractive, and prevent fluctuations in production volumes (be they the result of political circumstances, as with oil, or climactic ones, in the case of wheat) from triggering sudden price variations due to the stagnation of demand, we must regulate world markets through “buffer stocks”. These stocks are destined to become a global public good. In the summer of 2008, the opening of the American Strategic Petroleum Reserve (SPR) helped bring down the price of oil after it rose dramatically in the spring. According to Paul Davidson, this already occurred in 1991 (with the oil shock caused by the first Iraq war) and in 2005 (after

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<sup>306</sup> Note from December 2008: The G20 hypothesis initially prevailed, but there is a risk (mentioned above) that it will consider itself not merely to have a summoning power, but as the authority that would actually create a new financial system. In my view, it cannot be the latter.

<sup>307</sup> Bernard Lietaer, *The Future of Money*, Century, 2001.

Hurricane Katrina<sup>308</sup>). One cannot at the same time complain about American leadership and ask the US government to bear the burden of maintaining stocks on their own, as in the case of agricultural products after the Second World War,. The “food crisis” of 2008 showed that the world reserve stocks had, over the years, melted like snow in the sun. More than half of world’s reserve stocks are maintained in China, and is used by the Chinese government for its own domestic needs.

We are faced perhaps with a historic opportunity. States, pension funds, sovereign wealth funds, and companies could join together to finance and manage stabilizing stocks. This would lead companies to use these reserves as their reference currency for trade, and pension funds to use them as asset reserve.

Finally—this is the third argument—very large corporations play a decisive role in organizing most of world trade, and they are few enough to agree amongst themselves on a new reserve currency. This brings us back to why industry chains are so important. ISO standards are already an interface between the public and private sectors. They already provide incentives for cooperation and consensus building between companies, with the state’s blessing. And isn’t currency, after all, just an accounting standard like any other—the expression, as Lietaer puts it, of an agreement? A bundle of raw materials founded on international stocks would be, at the end of the day, a more credible exchange standard than the dollar, whose value is a function of American political imperatives.

In sum, the first dimension of vectorial money is tied to territories and the second dimension to international production chains. Clearly, these two have a hard time leaving one another.

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<sup>308</sup> Paul Davidson, “Crude Oil Prices ‘Market Fundamentals’ or Speculation.”

One could object that the price of oil is much too volatile to serve as a reserve currency. After all, it went from \$10 a barrel in 1999 to \$145 a barrel in July 2008.<sup>309</sup> But this volatility is a direct result of weak regulatory stocks. Oil production is fairly easy to regulate and predict. Demand for it evolves slowly. Even oil-producing countries have an interest in its stability.<sup>310</sup>

This brings me to the third dimension of vectorial currency: fossil energy. We all know we need to limit oil consumption, for two reasons: to contain within acceptable limits the irreversible process of global warming; and to prevent competition for the control of energy resources from degenerating into global conflicts. (Every contemporary conflict or potential conflict smells of oil and gas...)

Fossil energies are second-category goods. Their governance must satisfy imperatives of justice and efficiency. Individuals, nations and world regions have each a minimum right to existing fossil energy resources (this does not, however, mean the right to free energy). Since each individual's "share of global fossil energy reserves must decrease over the years, a quota of fossil energy for each individual and each economic activity will be required. Quotas will apply not only to energy purchased to fill one's car or to cook and clean at home—they must also include energy incorporated into the good and services one purchases, which belong to one's ecological backpack. For each new purchase, the quota allocated at the beginning of the year would be charged to one's electronic billfold, just as one is charged in miles each time one applies some of them to buying a flight.

However, as the British politician David Miliband has suggested, anyone can sell part of or her quota to the highest bidder, instead of using it for her own needs. A system of territorial auctioning, comparable to the stock exchange, would set for a given period the price of a Ton of

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<sup>309</sup> Daniel Cohen, "Pétrole, l'heure du doute," *Le Monde*, August 28, 2008.

<sup>310</sup> Note from December 2008: The fall of the price of oil to \$40 in late 2008 only confirmed this volatility. Fall in demand was eventually tempered, but it was enough to dive the price of oil by four.



Oil Equivalent transferred. Any transfer is immediately registered as a debit and credit on the respective cards of the vendor and the buyer. This mechanism is hardly revolutionary: in Europe, it is used in emission rights markets. Individual or companies can also increase their quota by producing and selling renewable energy. Finally, they can negotiate the price of energy transferred to a third party, for instance in the form of heat. Since the emission of heat is localized, its transfer is only negotiated one step at a time, which contributes to its being used more efficiently. On the basis of quotas allocated to everyone, fossil energy is sold to individuals and companies at a price fixed for a given period—for example six months—and revised in accordance with the changes of stabilized global prices, as in the case of gas.

It should become clear at this stage how the various dimensions of vectorial money are related to one another: if fossil energy is included in a global reserve currency, according to the hypothesis previously advanced, its price will automatically be stabilized, and the question of its price in the context of individual quotes will become irrelevant. Consequently, since fossil energy prices are not excessive, the poorest families will be able to survive and to put themselves in a position to sell their surplus. This requires technical support strategies and the creation of financial products of long-term investment, notably products allowing for the improvement of the housing stock's thermal efficiency. Remuneration for these financial products will follow the classic method of dividing up the savings thus achieved.

This territorial system of auctioning is only the first stage. Compensation mechanisms must be established between territories: territories that have not used all their quotas should be able to transfer them, using the same mechanisms, to territories that require them. Since direct and indirect energy expenses are, through the ecological backpack of consumed goods and services, for the most part tied to income, the third dimension of vectorial currency has two

advantages: it is a powerful incentive to rapidly increase the efficiency of energy use, to take advantage of exergy, and to produce renewable energy; and it is also redistributes.

Let me finally mention, in conclusion, the fourth dimension of vector currency: that of consumed material resources (other than fossil energy). These material resources belong to different categories of goods but are similar to third-category goods in that they are recyclable. Since modern production processes can be traced in detail, goods and services that are sold must provide precise information on the material processes consumed throughout the entire process. Indeed, the transferring onto a CRT (consumed resources tax) as large a share as possible of the financial burden that is currently placed on labor through the VAT (value added tax) is, as I have shown above, crucial. Naturally, the CRT will be returned to recyclers. Except for this fiscal portion, the “material value” of the purchased good is embedded in the market price. When the materials in question can be either purchased from abroad or extracted at home, it is reasonable to expect that the external part would be paid for in an international currency, and the internal part in a local currency.

## **6. The Management of Time: Stores of Value and the Operation of Financial Markets**

The management of time and the functioning of financial markets raise six questions. They are as easy to ask but difficult to answer.

1. How does one mobilize in the present the resources needed to satisfy tomorrow's needs?

2. How does one guarantee that saver and the loan-maker that they will recover their loan (with interest)? This is the classic question raised by stores of value.

3. How does one distribute (from the local to the global levels) savings so that they can contribute to useful social change? And how does one measure “usefulness”?

4. Presuming one wants to develop the tangible, intangible, human, and natural capital upon which our prosperity depends, what measures can be used to assess this development? And what kinds of return can be offered on these investments to investors, given that most of this capital yields no interest?

5. How can one turn more or less short-term savings into very long-term investments?

6. How does one orchestrate institutional arrangements based on a natural or organic rationality that promote one’s goals?

So, first: How does one mobilize today’s resources for tomorrow’s needs? If one expects the needs in question to be greater and to extend to society as a whole, avoiding each individual’s regard for his or her particular needs, then one must obviously connect them to the personal interests of investors. This is the remunerative purpose of capital investment. But it is often overlooked that these more extensive needs must be tangible and properly explained. Thus we encounter once again the idea that abstract, anonymous transactions must give way to relationships, to an almost physical sense of the stakes involved. If one does not want the connection between risk and return on capital to be the only principle guiding how savings are used, then they must be tied to objective goals that are based on something other than the celebration of egoism (despite the fact that this is what most advertisements promoting financial investment do). Savings management must also be tied to the desire for meaning, to which I have often referred in this book, and the feeling of communal belonging. I predict, for instance, that

the development of “lasting supply chain contracts” as well as Territorial Oeconomic Agencies could spur the creation of specific financial tools.

Second question: what kind of guarantees can be made to savers? This question must be answered in two stages. First, it must be shown that the guarantees that exist in the current system are far more precarious than are generally acknowledged. What are the existing guarantees? The answer can be summed up in a sentence: the risks that borrowers would incur in not reimbursing or honoring their commitments. This problem is familiar to all traditional forms of mutual aid, from the tontines of African villages to present-day mutual loan systems in the Chinese diaspora, by way of the entire history of the cooperative movement. Laws may not be broken, but one risks losing face and being ostracized from the community. After all, in traditional banking, one speaks of loans given “on trust,” which imply that one depends on a single guarantee: the fact that whoever does not pay back his loan would lose their honor. Whether it be the judicial system, which is appealed to if the terms of a contract are not respected, or more informal mechanisms, a guarantee, like money itself, always implies a community or a plurality of communities.

Theorists of these issues have made an interesting distinction between “hot money,” which comes from one’s own community, and “cold money,” which comes from some anonymous elsewhere. Hot money is always better managed and likely to be reimbursed. Cold money is a different matter. Grameen Bank-style microcredit is based on a similar logic: asking a group of women to mutually guarantee loans made to each of them is a way of replacing financial guarantees, with a promise that each woman makes to the others—in other words, with social pressure.

The kind of reasoning that works for a community is just as valid for the world as a whole. Guarantees depend, at the end of the day, on relationships of mutual trust. The financial and banking system once—and not that long ago—had to offer peasants and small savers a lot of guarantees before they were prepared to give up the gold coins hidden undress mattresses or behind chimneys in exchange for bank accounts and paper money. In many instances, they had every reason to be suspicious. In postwar France, public housing was financed thanks to the differential between the interest rates of the Caisse d'Épargne (a savings banks) and inflation, in a way that massively penalized small-time savers. The same mechanism of mutual trust guarantees, at an international level, relations between banks. This is why when a financial crisis occurs, like the subprime crisis of 2007-2008, states seek at all costs to prevent banks from collapsing like dominos. In each crisis, the same question recurs: shouldn't we let irresponsible investors and banks fail in order to teach them a lesson? Is it fair that after privatizing profits, we socialize losses by recapitalizing (or even nationalizing) failing financial institutions? If, in general, states decide to assist weakened actors, it is because the worse thing that can happen to them is a general loss of confidence in the system.<sup>311</sup> But mutual trust and communal consciousness make debts legitimate. As I have said previously, the fragility of the foreign debts of developing countries is tied to the fact that they have little legitimacy. Developing countries feel constrained to repay these debts so long as they find it unacceptable to lose the trust of international investors because they expect they will need additional loans. Could they free

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<sup>311</sup> Note from December 2008: The unfolding of the financial crisis in late 2008 only confirms this analysis. But though major states, as was to be predicted, guaranteed the commitments of banks, this was not enough to restore trust between banks: after all, they know one another too well. The crisis's development offers two other illustrations of this idea. First, the American government had to run to the rescue of Fanny Mae and Freddy Mac because of massive Chinese investments. Their collapse would have in effect destroyed, from the Chinese perspective, American credit. Second, Crédit Suisse offered Swiss savers "structured products" from Lehman Brothers, the value of which disintegrated after Lehman's collapse. Initially, Crédit Suisse's response was legalistic: as the middleman between Lehman Brothers and savers, it had no obligation to indemnify the latter. The savers, however, had placed their trust in Crédiut Suisse; consequently, it had to retract this position and commit itself to indemnification.

themselves from this constraint, then everything would be different. I have also spoken of the risks undertaken by foreign investors: when the broader question of debts and loans between countries is addressed, the problem of the ecological debt of long-developed countries—i.e. of non-repaid damages incurred by past appropriations of wealth—will inevitably be raised.

Financialization would seem to suggest that trust-based guarantees could be replaced by their opposite: the option of withdrawing at any moment. This is what we call investment liquidity. It has two purposes. First, it makes it possible to mobilize one's savings at any moment. This is a legitimate way to prepare for life's uncertainties, such as illnesses or accidents, or to seize opportunities, such as buying a home. But the second and more important purpose is to provide the loan-maker with an apparent guarantee: you can always pull out before it's too late. But this is pure recklessness. Everyone says: when you smell something burning, don't try to put out the fire, be the first to get out. I've known a lot of wealth managers. Most say that if they keep their eyes glued to their screens, they can cash in on market highs and still bail out when things start to fall. But this outlook is delusional when everyone else is thinking the same way. It's the same old story of Rothschild and Waterloo. From London, Rothschild had organized an elaborate system of couriers and relays to be the first one informed of the outcome of the Battle of Waterloo. All he had to do was spread the rumor that the English were beaten to walk away with the pot. We should acknowledge that the system of guarantees is particularly fragile for small savers. If this were not so, such sophisticated systems for commercializing risks would not have been put into place.<sup>312</sup>

If we want to return to stable relationships, current guarantees—the ability to be the first to flee relationships at any given moment—is no longer practicable. Instead, we must turn once

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<sup>312</sup> Note from December 2008: Once again, the events of late 2008 illustrate this analysis perfectly. Investment illiquidity only accelerates collapse.

again to legitimacy and community. My feeling is that the use of loans is clear and self-evident when they are tied prosperity in general and deemed legitimate. From this perspective, the growth of index funds and more generally of Undertakings for Collective Investment in Transferable Securities Directives is probably inescapable. They have the advantage of distending the relationship between saver and investor. Consequently, they resemble transactions more than relationships, on one hand, but, on the other, they respond to a need to mutualize risks which is all the greater in that access to information, and thus to the extent of the risk, is a problem for the average saver. Still, it is possible to find compromises that are more advantageous than the current ones. To return to our future pivotal actors, collective investment in the development of a territory's prosperity or in the transformation of a supply chain to make it more sustainable allows one to maintain relationships within the community while mutualizing risks.

Third question: how can one, at both the local and the global level, direct savings towards useful social change? And how can measure their practical impact on society? Directing savings is not the hard part. The two priorities that are the fight against poverty and the transition to a more sustainable society would alone (particularly) the second mobilize all available savings. The question of measuring the societal impact of this investment is more difficult. We confronted this problem in relation to microcredit and evaluating the state of the world. And it is even harder to trace a connection between a particular investment and a broader trend. We need to invent a mechanism for mutualizing risks and profits.

The fourth question—how to direct savings towards capital growth the value of which cannot be assessed in commercial terms?—is even more difficult. When introducing the four different kinds of capital, I showed that they were fundamentally mixed, i.e., both public and

private. Furthermore, we have seen on numerous occasions that intangible and human capital, as well as fourth-category goods (which multiply when divided), were instrumental to our future prosperity. It is one thing to devise measuring tools, but it is altogether different to remunerate savings that contributed to the growth of such capital. Let me mention once again the examples of intangible and human capital by limiting myself to the simplest of cases, i.e., territories. Let's assume that I am able to create measuring instruments. For instance, I might attempt to measure the intensity of cooperation between public and private actors in a particular territory, the average size of social capital, or the level of training that individuals have attained and its appropriateness for a particular society's needs. Even so, all actors do not use these two forms of capital exclusively, as the economists say: that is, using one does not exclude using the other. This complicates considerably the question of the remuneration of investments made to develop these two kinds of capital, but it does not render it impossible. Three solutions present themselves at first glance—and there may well be more. The first, classic solution involves taxation: local governments agree (as they alone are in a position to do so) to collect taxes in order to pay back those who made investments. In many countries, moreover, local governments regularly pass bond levies in which private entities participate. Another classic approach consists of creating a kind of club, an economic interest group in which investments are made in intangible and human capital for the exclusive benefit of its members. This solution can be useful in certain situations, but it partially contradicts the very nature of intangible, human, and even natural capital. There is a third approach that I find particularly appealing, but which would demand great strides in innovation and learning: it consists of considering the impact that the development of these forms of capital have on the ability of various economic actors to produce useful wealth in our society. For instance, one could try to evaluate the overall change in a local



economy's efficiency, the change in its "material productivity"—that is, the relationship between added value produced and energy and matter consumed. We have seen the real productivity of an economic actor is a function both of its own qualities, i.e., of its ability to manage and to innovate, and of its environment. This mixed identity should lead to financial products seeking both the improvement of a supply chain's environment as well as the development of the supply-chain actors themselves, with rules for the distribution and the remuneration of investments. These rules must be independent of any information about whether a particular investment helped to develop intangible capital while another contributed to the growth of one of the supply chain's companies. This approach would, in other words, be consistent with the idea of "index funds," but whereas these currently only apply to funds invested in companies, the concept could be expanded to the entirety of actions that contribute to society's overall prosperity. This approach would be a compromise between a public loan paid back through fiscal revenue, and private investments that are remunerated through profits.

Looking beyond the territorial levels (including that of the world itself), the question of whether one can similarly conceive of mixed financing for first-category goods, which are diffuse and span a very large scale, is posed. Consider, for instance, the preservation of Amazonia or the Siberian steppes. When protecting a local environment, one often uses civil law easements to restrict its use. I described these mechanisms when discussing first-category goods. It remains to be seen whether we should explore the hypothesis that protection is so important to humanity that one could, in the absence of a global system of taxation, conceive of collective means of investment with sufficient guarantee of return.

The fifth question concerns the transformation of short-term savings into very long-term investment. In itself the question is not new. It is the question that defines the banking

profession. Even so, our age's greatest challenge is to reconnect with a sense of duration and to find capital to invest over a very long time. I have said on several occasions that the stakes require us to form a coalition between pension funds and sovereign wealth funds. We do not only need a second Bretton Woods or a Global Compact, but the creation of a lasting contract between the major investment funds, territories, and supply chains. A simple example: the creation of financial products that could change the existing urban housing stock. This would require investments, to be amortized over a twenty or thirty year period, that current proprietors of public housing units cannot afford to finance themselves, precisely because they cannot provide banks with sufficient guarantees. In these situations, one could imagine forms of investment remuneration that would define rules for dividing up between the public housing proprietors and local investments funds the savings achieved, for instance, on heating bills. If I insist on the idea of a shared vision, it is because I am convinced that, as soon as the stakes are clearly understood, solutions that I alone am incapable of imagining will gradually emerge.

Finally, the sixth question: how should one go about conceiving of new institutional arrangements for finance? Let me offer a few suggestions.

The first concerns the remuneration of financial operators. I am convinced that in the current system, financial operators face a permanent conflict of interest in relation to their clients. It is worth remembering that in any service-sector activity, the question of whether value is being added or being subtracted is undecidable: value can only be measured by what the client agrees to pay the service provider. One very simple measure that can be adopted is to cease remunerating capital transactions. It is better to have a financial middleman whose management costs are high but who has a real talent for analyzing risks and opportunities than one with low

management costs but who is filling his pocket by constantly charging for individual transactions. This system encourages criminal behavior.

A second, similar suggestion is to defer remuneration. This approach is often used for CEOs. Along these lines, I have also mentioned the importance of only evaluating the performance of funds and middlemen over a relatively long period of time—three or five years—while finding measures that promote the more stable contracts between savers and managers.

A third suggestion is to reduce the role of and the means available to financial predators. For instance, the right to use one's stockholding to vote at a shareholders meeting should be tied to the length of time—perhaps three years—one has owned stock. No one thinks it unusual to restrict voting rights in a particular country to citizens who have lived there for some time and have been properly naturalized. Given the importance of economic actors, why should it not be the same in companies? This would strengthen the influence of stable shareholders who associate their own prosperity with that of a collective undertaking.

My final suggestion involves reforming pension funds. In some countries, they are almost required by law, given the fact that they manage employees' savings, to restrict themselves exclusively to tending to their interests. This precludes long-term investments in change that could ensure the future of these employees' children and grandchildren or in traditional domains that preserve the security of these investments. We thus have here a major opportunity for innovation—yet which does not require rocking the boat too much.

# Glossary

**Active subsidiarity:** A principle that endeavors, in a multilevel governance system and in situations in which problem-solving requires the cooperation between different levels, to promote both the greatest possible unity and the greatest possible diversity. The principle of active subsidiarity is central to contemporary governance.

**Actor:** An actor is a group of people and institutions endowed with a capacity for collective action that strives to achieve a common project. Actors are social constructs founded on a shared worldview (the “intelligibility threshold”), exchange (the “dialogue threshold”), and an ability to elaborate a common project (the “project threshold”).

**Bio-socio-technical systems:** An approach to understanding society that considers it from three distinct angles, each with its own internal coherence: as a bio-ecological system (emphasizing society’s participation in the biosphere); as a social and political system; and as a technical system (emphasizing society’s distinct evolutionary dynamic).

**Capital:** Resources accumulated over time and which are used in production processes. At the conclusion of these processes, capital is either preserved or increased. There are four kinds of capital: tangible, human, intangible, and natural.

**Collective living being:** Any gathering of individuals and institutions, which may or may not be temporary or permanent, which may or may not have a juridical status or not, and which may or may not possess a shared project, but which does have mechanisms allowing it to regulate itself,

react to external events, adapt to the environment, and manage its internal components. These characteristics make it possible to consider it as a kind of living being. When discussing ant colonies, we call these regulatory mechanisms “supraorganisms.” We are particularly interested in emerging forms of organization and collective action—alliances, networks, forums—that do not necessarily coalesce into institutions.

**Emergent property of a system:** In a system composed of a large number of components, the simple rules governing these components and their relationships become properties of the system as a whole. For instance, biodiversity is an emergent property of ecosystems.

**Energy efficiency:** The ways in which societies take advantage of the energy at their disposal. It is generally characterized as the relationship between gross domestic product and quantity of energy consumed.

**Exergy:** A term drawn from thermodynamics, which refers to all of a system’s potentially usable energy. It includes: the “noble” energy constituted by work (in the sense in which the term is used in physics rather than in the social sciences) and the “less noble” energy consisting of heat. By analogy, exergy can designate the maximum degree of social usefulness that can be extracted from a particular system.

**Globalization:** A term reserved for economic globalization. It refers to the fact that our existing production and exchange system is organized on a global scale. It is also characterized by an

ideology which claims that the elimination of local and national obstacles to trade is collectively beneficial.

**Governance:** A system that regulates all the ways in which a society undertakes to achieve its goals and to ensure its survival. The most common objectives are social cohesion, peace with foreign societies, equilibrium between society and the environment, individual fulfillment, the protection of the rights and potential of future generations, and economic and human development.

**Indicators:** Characteristics that are assigned to or that measure given phenomena, particularly social phenomena. Indicators are established according to specific procedures. They make it possible to “form an opinion” about the state of a system. They may include indicators of wellbeing, wealth, human development, governance, etc. These indicators may be based on measurements (as with GNP per capita) or opinion (as with indicators of media credibility). Indicators always have an either implicit or explicit normative content, i.e., they imply a value judgment. Thus the use of GNP per capita as an indicator of national wealth emphasizes material wealth, while indicators of good governance applied to international institutions refer to views about what constitutes good governance. Consequently, indicators must always be viewed critically.

**Industrial ecology:** The art of analyzing, proposing, and implementing complementarities between human activities, particularly industrial ones, based on material flows, in which one flow’s waste becomes another’s raw material. This insight is drawn from an analysis of

ecosystems, in which the extent of cooperation between components is an indicator of a system's relative "maturity."

**Institutional arrangements:** A stable configuration of relations between individuals and institutions. The term is used by the Régulation School to show that even among societies that have market economies, different societies follow different models. Institutional arrangements are central to oeconomy. They make it possible to consider the way in which relations are organized between institutions and actors, as well as between the public and private sectors. The search for relevant institutional arrangements is the fourth principle of governance: "to conceive and render operational institutional arrangements the underlying rationality of which leads spontaneously to the achievement of the goals being pursued."

**Institutional engineering:** The art of institutional arrangements; the art of conceiving arrangements and institutions, the spontaneous rationality of which leads to the achievement of the goals being pursued.

**Institutional rationality:** The tendencies to which an institution is spontaneously inclined as a result of its conception and metabolism. The idea of "institutional rationality" can be summed up by the saying: "Everything that matters is in the kitchen." When a goal is imposed on an institution whose rationality pushes it in a different direction, the institutional rationality typically prevails.

**Legitimacy:** The extent to which authority is exercised in a way that the majority deems satisfactory.

**Metabolism:** The regulatory system of an organism, an ecosystem, and by extension of a society. On this basis, we speak of “territorial metabolisms.”

**Norms:** Characteristics upon which a large number of individuals and institutions are in agreement. In the case of institutions of normalization, particularly the ISO (International Organization for Standardization), these norms refer to characteristics and specifications, as well as to standards of measurement and even to procedures and management practices. Norms play three essential roles: they shape expectations (offering, for instance, security in commercial transactions); they condense knowledge (as with environmental norms); and they guarantee the interchangeability of objects of different origins (from screwdrivers to computer parts). Norms also have a social function: they can be principles and types of behavior on which a certain consensus exists at a given moment, making other-directed behavior relatively predictable. Norms plays a discrete but fundamental part in economic as well as social life.

**Oeconomy:** The principles, institutional arrangements, methods, and technical modalities of production or exchange that are elaborated and implemented to ensure that society makes optimal use of the planet’s resources and existing technical capacities in a way that maximizes wellbeing. The term is formed from two Greek words: *oikos*, meaning “household,” and *nomos*, meaning “rule.” Throughout the book, “economy” refers to the current system, in which companies, markets, and monetary relation, as well as all the associated procedures and



“economic laws,” have become so prevalent that they appear to be self-evident (to the point of resembling “laws of nature”). “Oeconomy,” however, refers to the future system that we must strive to create. Interdependency on a global scale means that the *oikos*—the household—now extends across the entire planet. Oeconomy is the branch of governance that organizes the production of exchange and the consumption of goods and services.

**“Open-closing”:** “Open-closing” is a characteristic of all living organisms: they have organs, such as skin, noses, and mouths, which filter external matter and expel internal waste, while offering protection from external intrusion. By analogy, societies have the capacity to fend off efforts to force them to accept external rationalities and to organize imports (such as energy, natural resources, work, culture, information and knowledge, etc.) in accordance with their own needs. This concept is particularly applicable to territories.

**Organism:** When used to consider human societies, this term is used to refer to different kinds of institutions that are dedicated to achieving particular goals (employers’ organisms, organisms for energy control, international organisms). In a different context, organism is understood in a biological sense: microorganism, single-cell organism, genetically modified organism, etc.

**Pivotal actor:** A pivotal actor is, in any given society, the actor that, without necessarily being more important or powerful than others, organizes around it an entire system of institutions and actors. It thus plays a predominant role, most importantly by imposing its own rationality on all others.

**Resources:** The components that enter into a production process and which are consumed or transformed in the course of production. There are three kinds of resources: natural resources (i.e., minerals, biomass, and energy), human labor, and information.

**Rules:** Norms that have a juridical value. Third parties which determine that the non-observation of a rule has harmed them have recourse to juridical authorities before which they can have their rights validated. A rule is thus binding. There are rules of urbanism, international trade, accounting, etc. Law is the totality of rules.

**Strategies for change:** The totality of processes and actors that enable a society to steer away from its existing course.

**Technical system:** The totality of techniques available in a society at a given moment. This totality constitutes a coherence whole facilitating the management of time, materials, and energy.

**Territorial ecology:** The implementation of the principles of industrial ecology in particular territory. Through this kind of cooperation, one increases the share of exergy used in a territory.

**Theory of gaps:** A characteristic of social evolution over the long term. In a given society, different sectors evolve at different speeds. Consequently societies that have begun a process of rapid transformation often possess contradictory traits. Some are the result of recent change, while others, due to their greater inertia, have survived from ancient times. The theory of gaps is

summed up by the saying: “Often, we rely on yesterday’s ideas to plan for tomorrow, and last week’s institutions to organize tomorrow’s world.”

## Annexes

### Conceptual Maps

Part 2 of this work, “the general principles of oeconomy,” follows for the most part a generative approach: I begin with a question, I consider it from different angles, and deduce from these either a more precise classificatory scheme or a several concrete proposals.

These different angles are described, depending on where they occur in my reasoning, as “specifications” (i.e., oeconomy’s essential characteristics) or “analytical grids” (the different points of view from which a question may be considered).

The plurality of specifications and analytical grids is a characteristic of governance. It can and must be considered from the standpoint of its goals, its general principles, its levels, its actors, its realms, its means, its institutional arrangements, and its evolutionary dynamics. The same holds true for oeconomy. It is also important to have available, at different stages of the reasoning process, synthetic understandings, when we clarify “what we’re talking about,” as when, for instance, the four categories of goods and services are discussed. We read books in a linear fashion; the human brain, however, represents reality holistically. To reach our goal, our minds need to be guided step by step. “A picture is worth a thousand words,” as the saying goes. I have often felt the truth of this statement while writing this book.

This is why I have repeatedly used “desmograms” (i.e., conceptual maps) created with the Desmodo software developed by Exemole ([www.exemole.fr](http://www.exemole.fr)) in partnership with the FHP. “Desmogram” is a Greek word that means, etymologically, “drawing connections.”

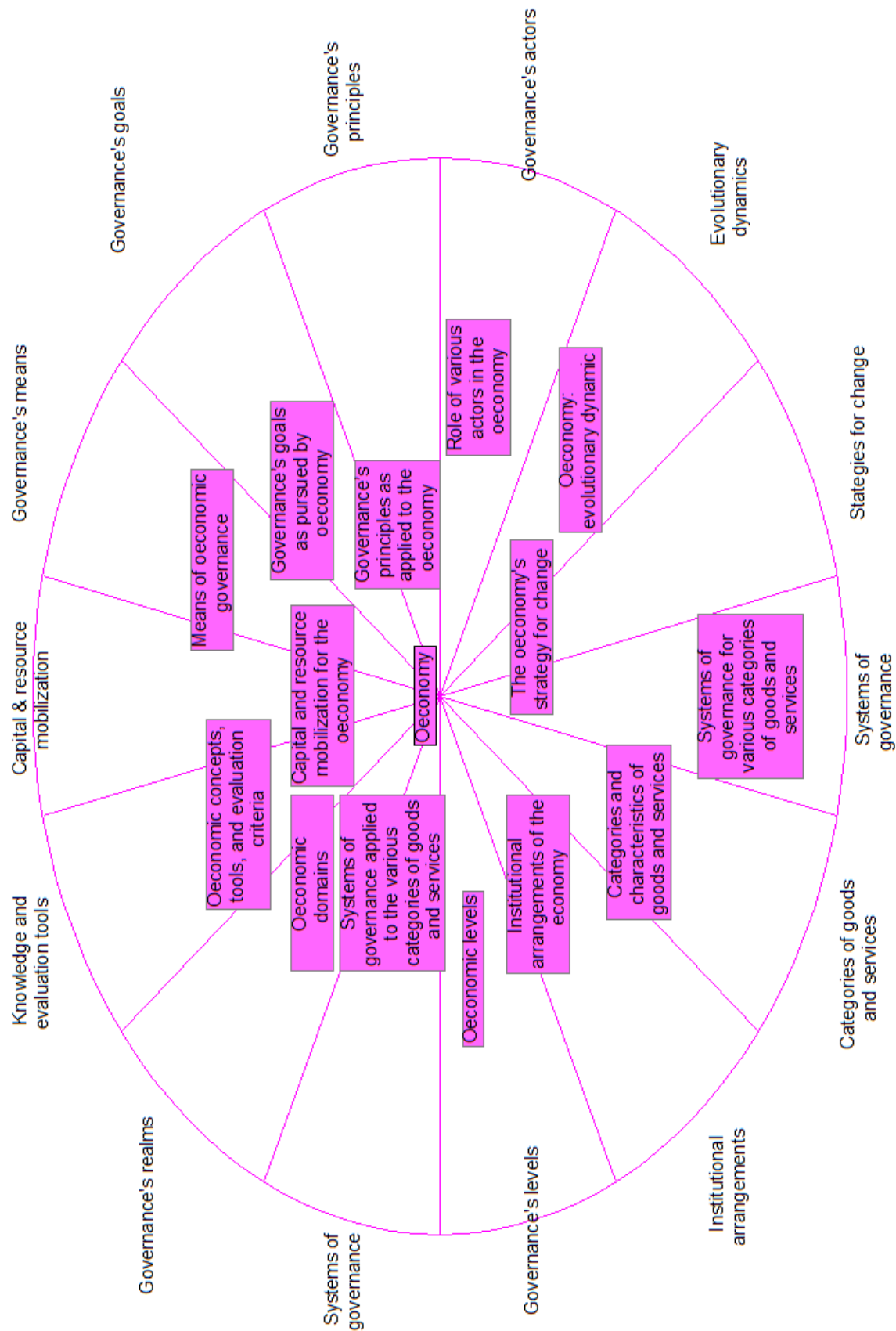
The interest in this approach lies, moreover, in the way it makes it possible to proceed from the general to the particular in stages. First, we present a general picture; then, we go into greater detail, as I have done in most chapters. I did this, for instance, when I first introduced the idea of territorial oeconomies before launching into a detailed consideration of Territorial Oeconomic Agencies (TOAs).

The maps were placed in the annex to make reading easier. I have refrained from detailed commentary on each map. The purpose of the maps, the reader should bear in mind, to support the book’s overall argument.

## **1. Examples of General Maps**

### **Inroads into Oeconomy**

This is the most general map. It illustrates the thirteen different analytical grids used in the book. It is a “first rank” map.



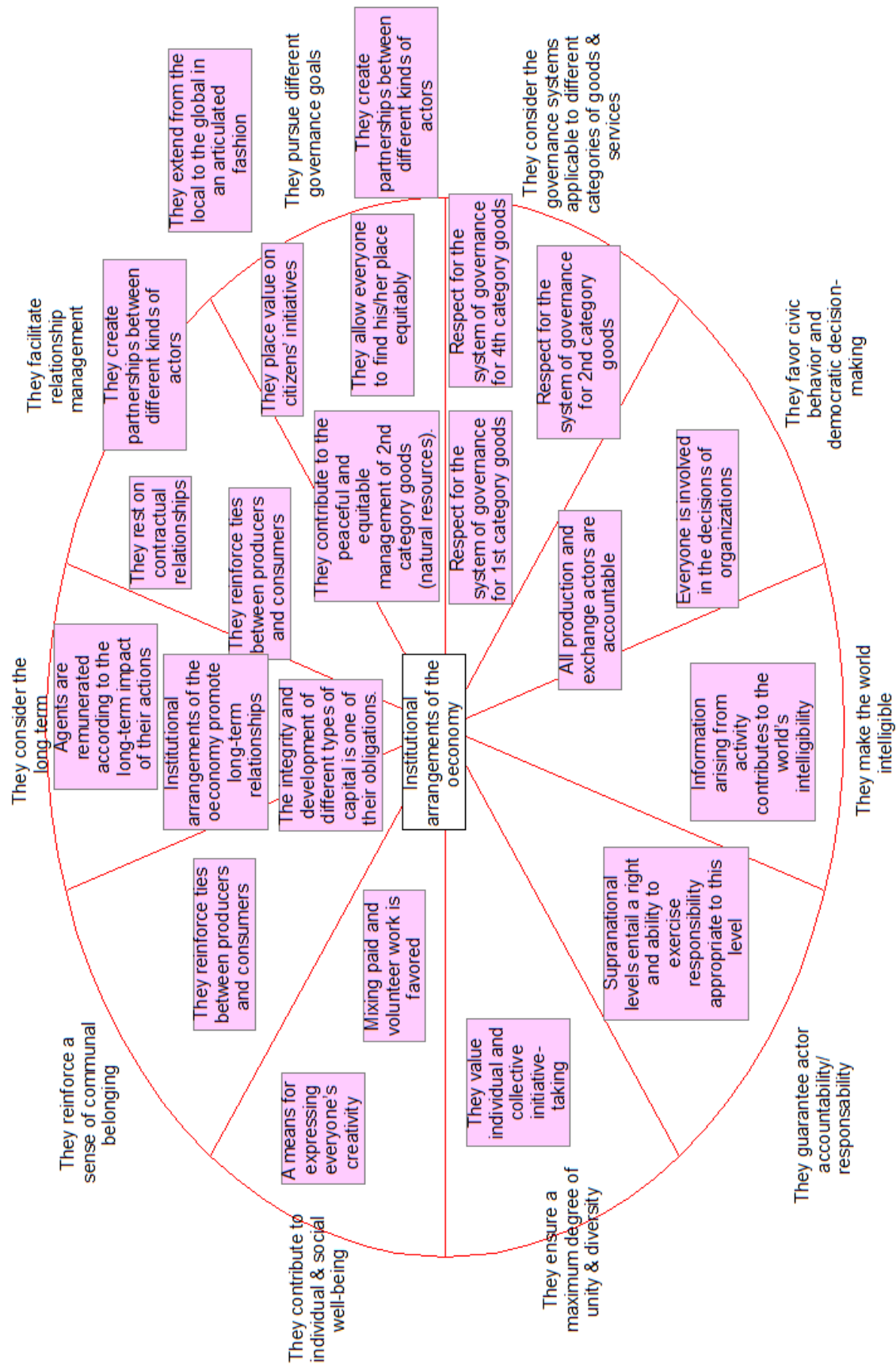
## **2. The Relevancy Criteria of Oeconomy's Institutional Arrangements**

The relevancy and efficiency of institutional arrangements constitute one of governance's five major principles, and, consequently, a principle of oeconomy. But what do we mean by the "relevancy of arrangements"? According to what criteria are they to be evaluated? What specifications must they obey?

I wanted to present a single synthetic map, so I combined several analytical grids: goals pursued; principles of governance; categories of goods and services; and characteristics of the art of governance (reconciling unity and diversity, relationship management, process conceptualization, and the combination of different regulatory levels and forms). This allowed me to define ten relevancy criteria corresponding to the map's ten sections. Together, they constitute the specifications of institutional arrangements.

### **The General Characteristics of Relevant Oeconomic Institutional Arrangements**

The identification of ten relevancy criteria gave me a roadmap. To fill out the map, all that was required was a little imagination (with no pretense to exhaustivity): that is, explaining how each section of the map applies to production and exchange, i.e., to oeconomy. The terms of the criteria already constitute so many descriptors (i.e., the map's individual boxes). The terms of the criteria remain rather general, but I quickly arrived at twenty descriptors that can serve as a guide to reflection and which effortlessly take us quite far from our current economic system.

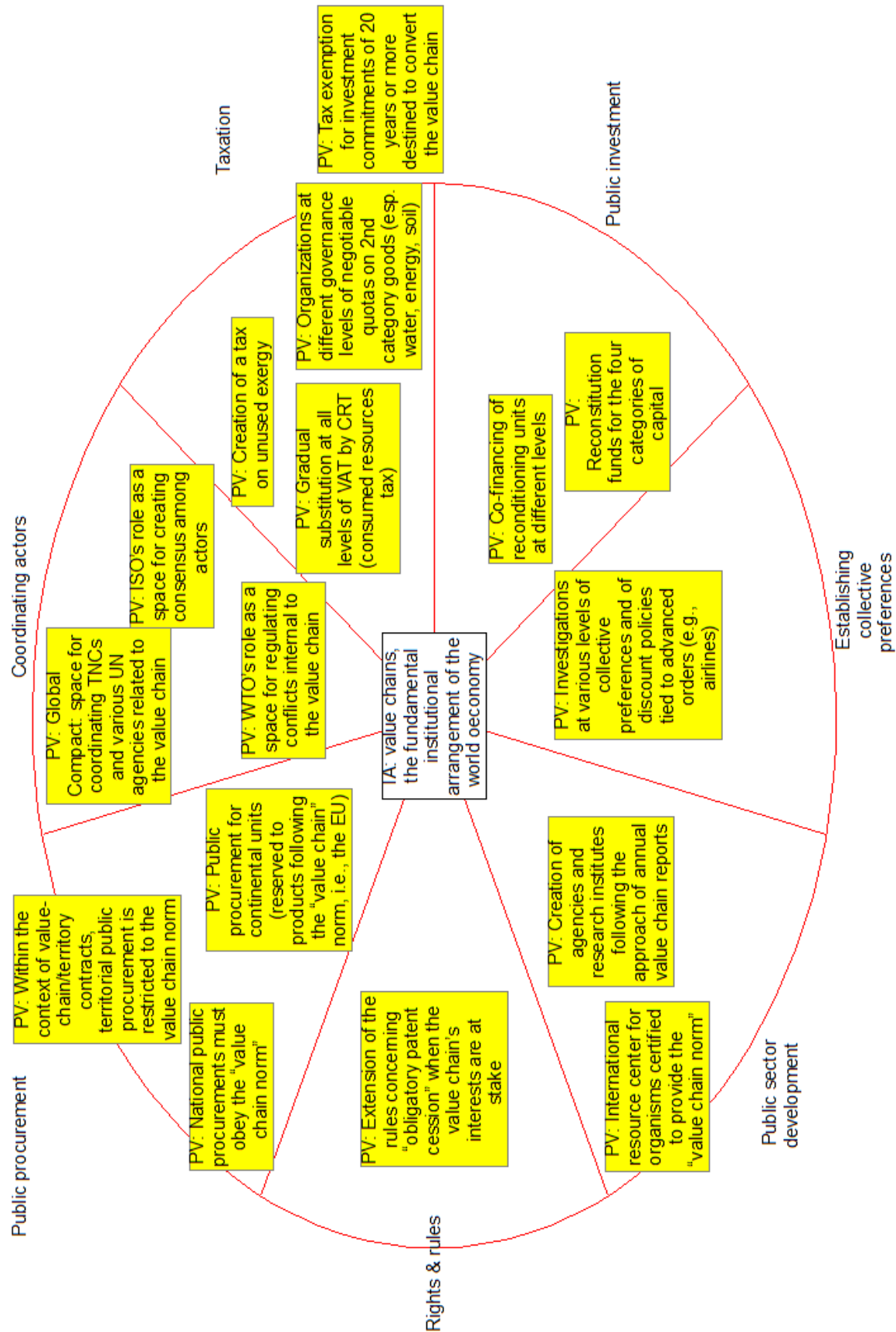




### **A Public Strategy for Proposing Value Chains**

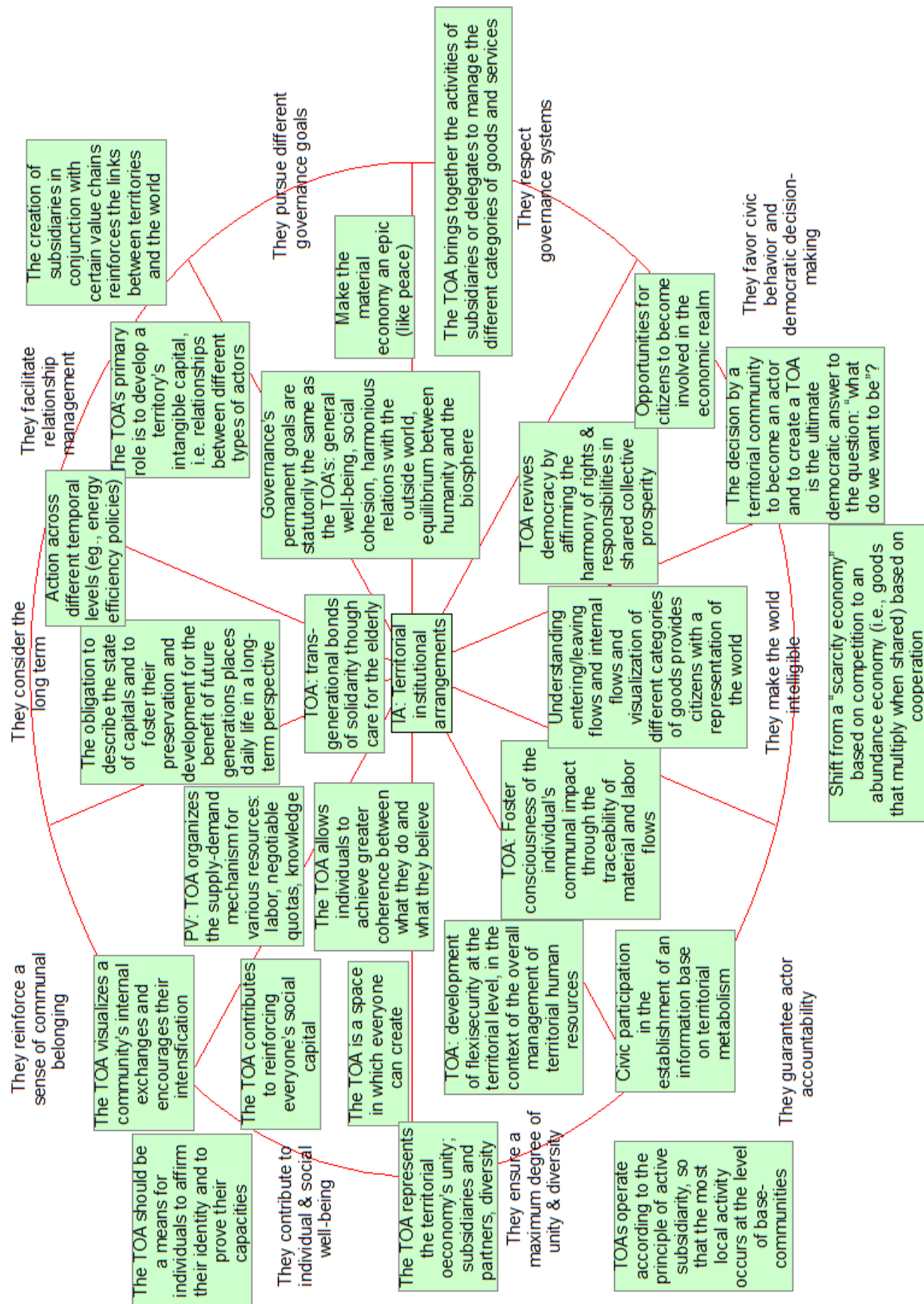
It is not enough to describe a desirable arrangement; one must also inquire into the means for implementing it. Here, I have emphasized one question in particular: what means do public authorities have at their disposal to guide the economy towards lasting value-chain contracts?

To do so, I borrowed the analytical grid from the map on the “means of economic governance”. And, once again, I let the chart’s sections inspire my imagination.



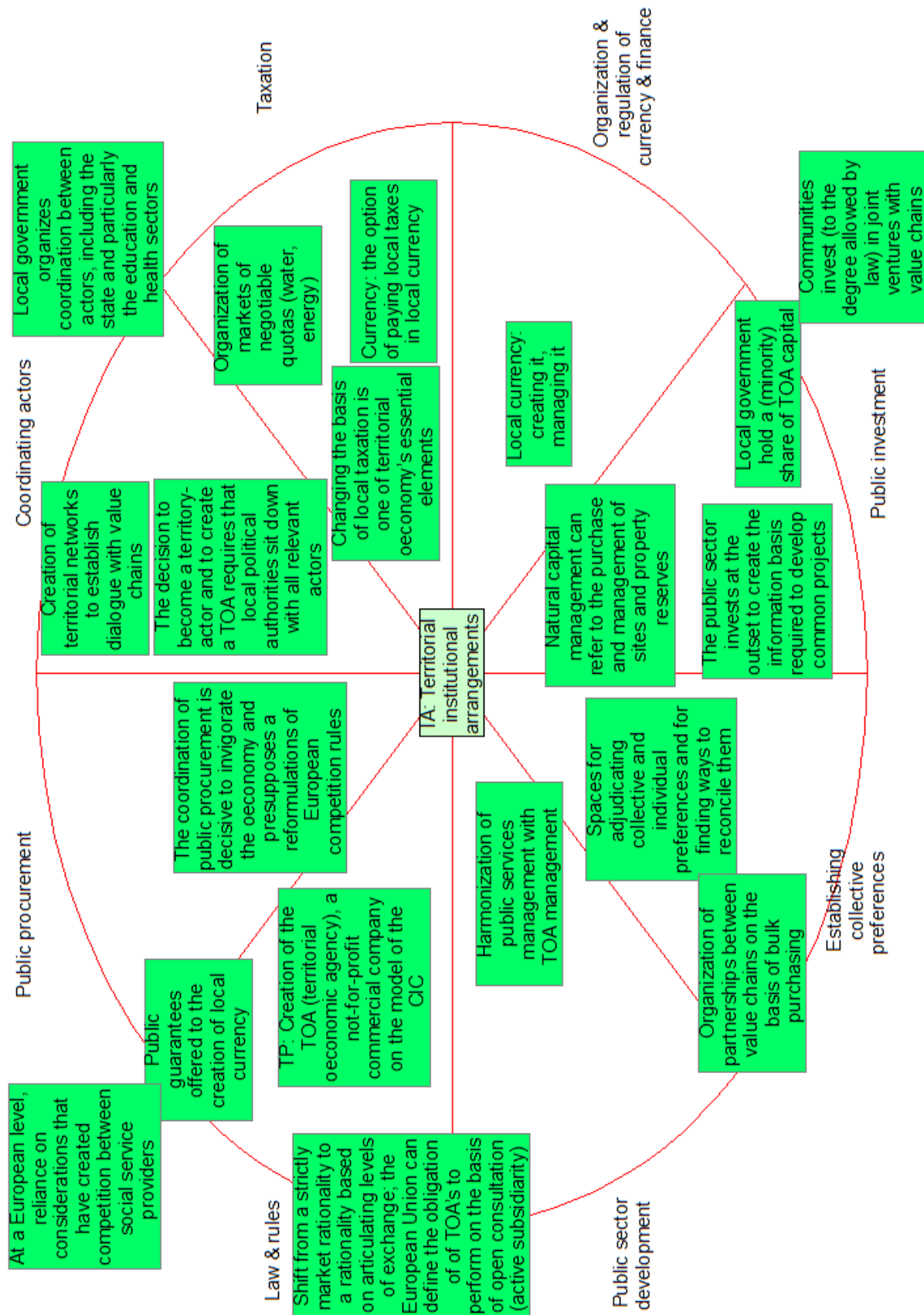
### **Territorial Institutional Arrangements: The Hypothesis of a Territorial Oeconomic Agency**

Territories are, after value chains, the second institutional arrangement of the future. After a sustained reflection on territorial oeconomy, all that remained for me to do was to sketch out some of the practical conditions under which it might be implemented. To do so, I proposed, drawing on the British example of Community Interest Companies (CIC), the idea of Territorial Oeconomic Agencies (TOA). Their specifications needed to be described more precisely. I used the same analytical grid as for the relevancy of institutional arrangements and let myself be inspired by it, which resulted in a fairly complete description of TOAs.



### **A Public Strategy for Promoting Territorial Oeconomic Agencies**

I used the same method as with value chains in the “means of governance” map and arrived at a definition of the strategy to be followed.



### **3. Currency and Finance**

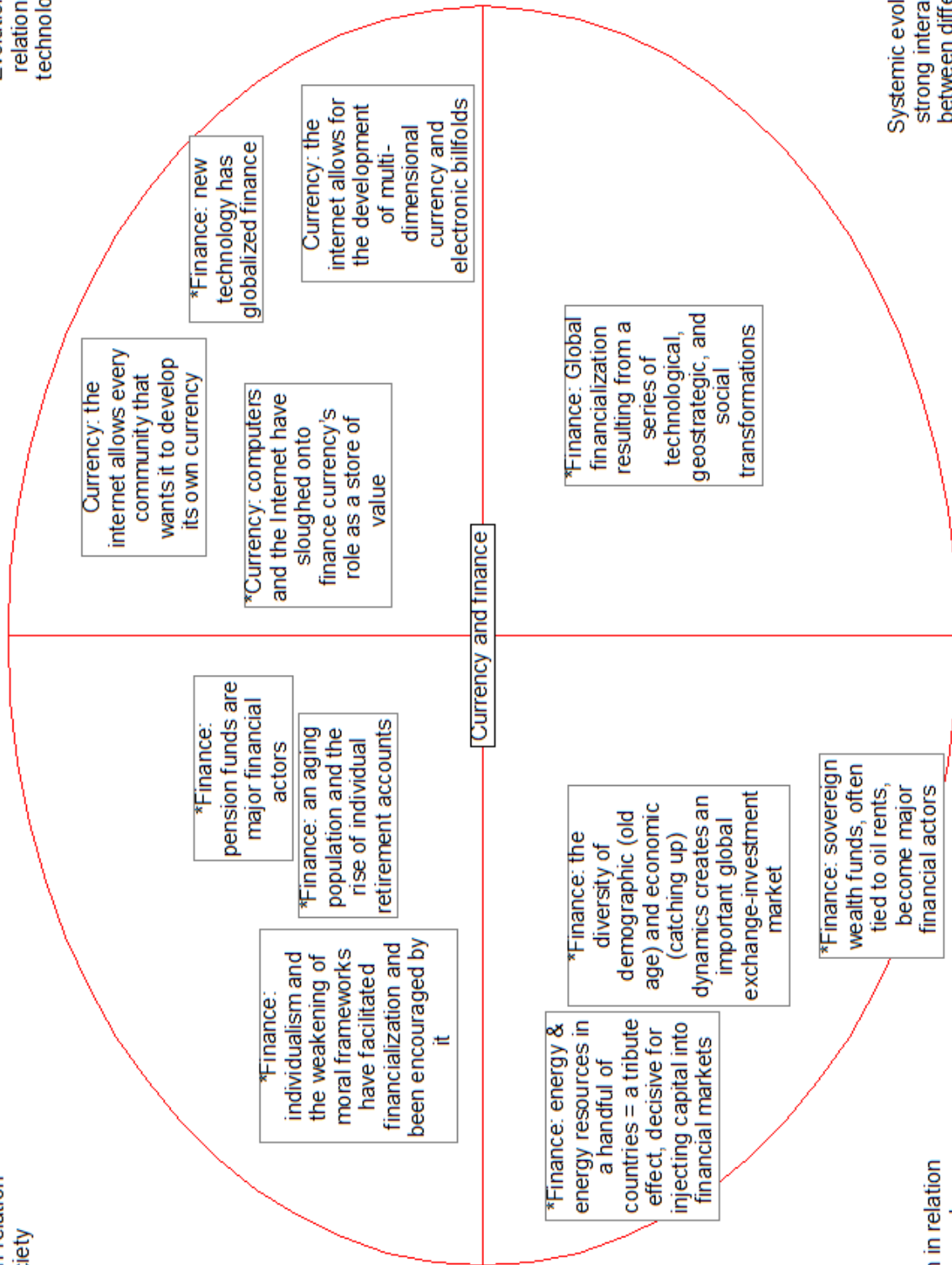
This is the book's final chapter. It thus drew on all my preceding reflection, all the more so since currency and finance can be found at every stage of production and exchange. I thus used five different analytical grids or five different "backgrounds."

#### **The Financialization of the Oeconomy: Transformative Factors**

One of our questions is to determine "how we got here?" "Here" in this case can mean one of two things. First, how did the international financial system come to take on such an important and significant role in the economy? And second, what wrong turns led us to the securitization of US subprime mortgages, which triggered the 2007-2008 economic meltdown? To this end, I identified three transformative factors: technological systems; society; and the scale of interdependencies. For good measure, I added a fourth section, entitled "interactions between transformative factors." This provided me with an overview of various concrete phenomena.

Evolution in relation to technology

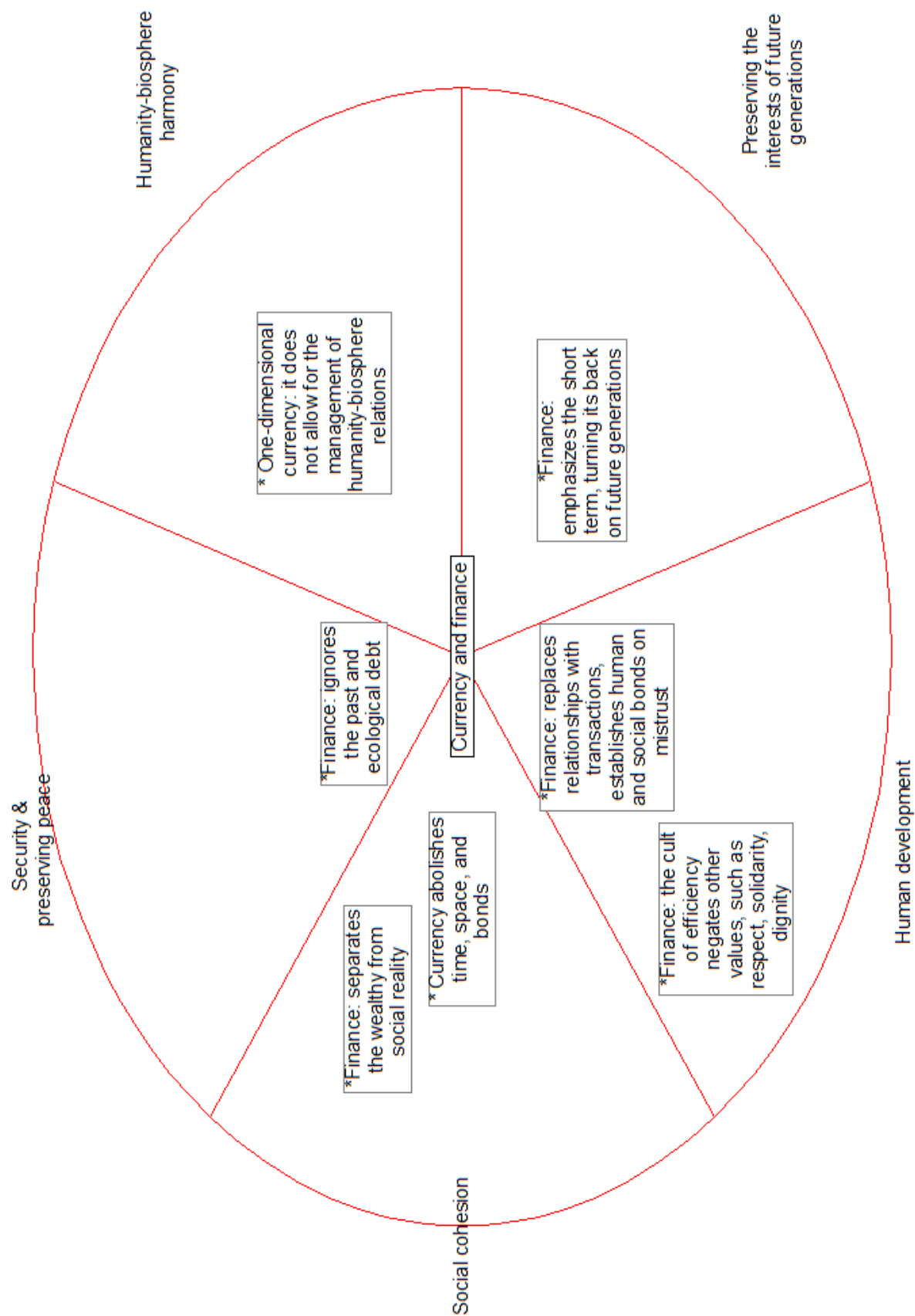
Evolution in relation to society





## **Does the Current Way in which Currency and Finance Operate Serve Governance's General Goals?**

In my earlier work on governance, I identified its five general goals: to foster harmony between humanity and the biosphere; to ensure security and preserve peace; to guarantee social cohesion; to permit human development; and to preserve the interests of future generations. They correspond to this map's five sections. All that remains is to evaluate the monetary and financial system in light of these five criteria.

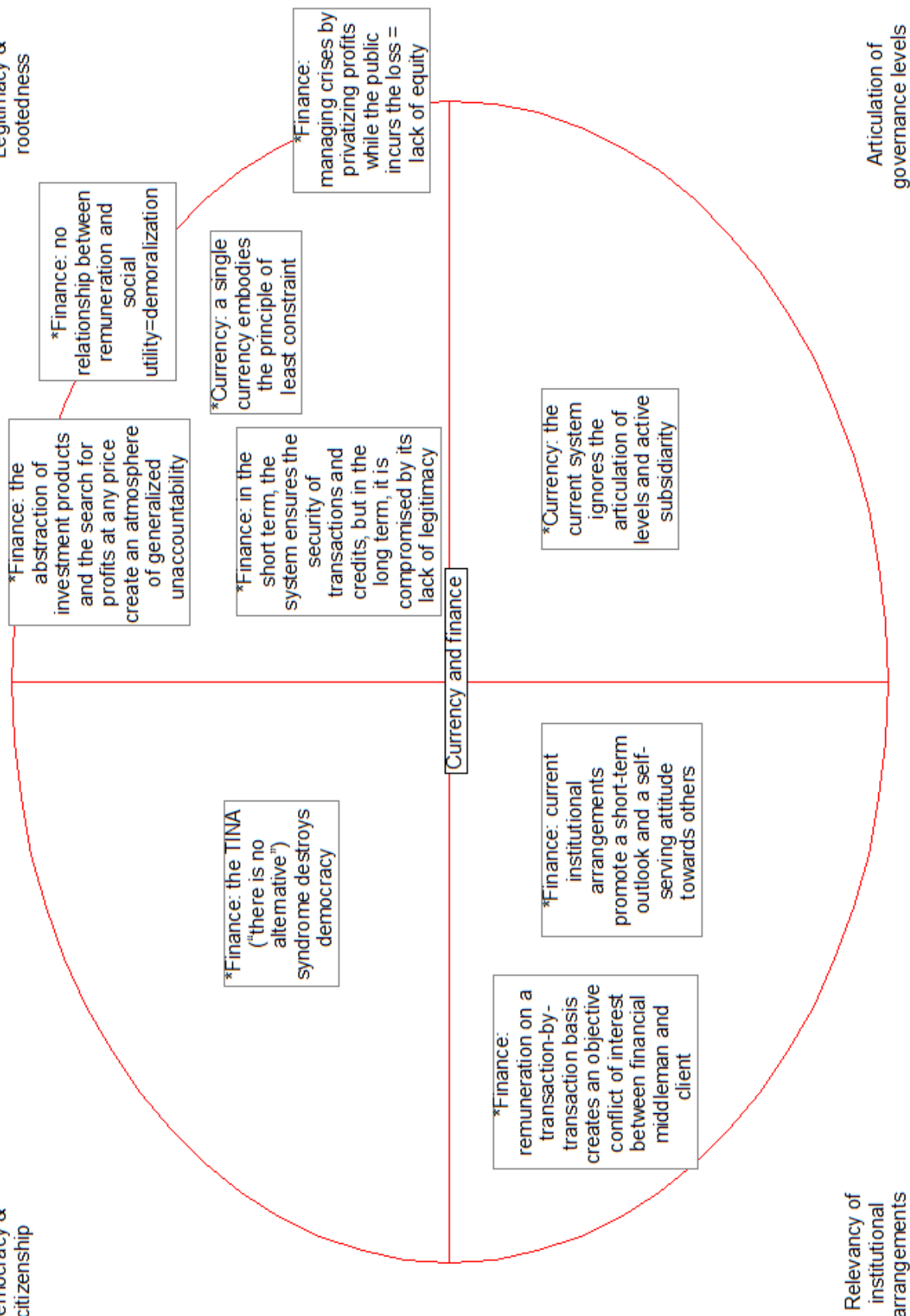


**Does the Current Way in which Currency and Finance Respect Governance's General Principles?**

I undertook the same exercise using governance's general principles. Once again, this calls attention to the serious dysfunctions of our existing system.

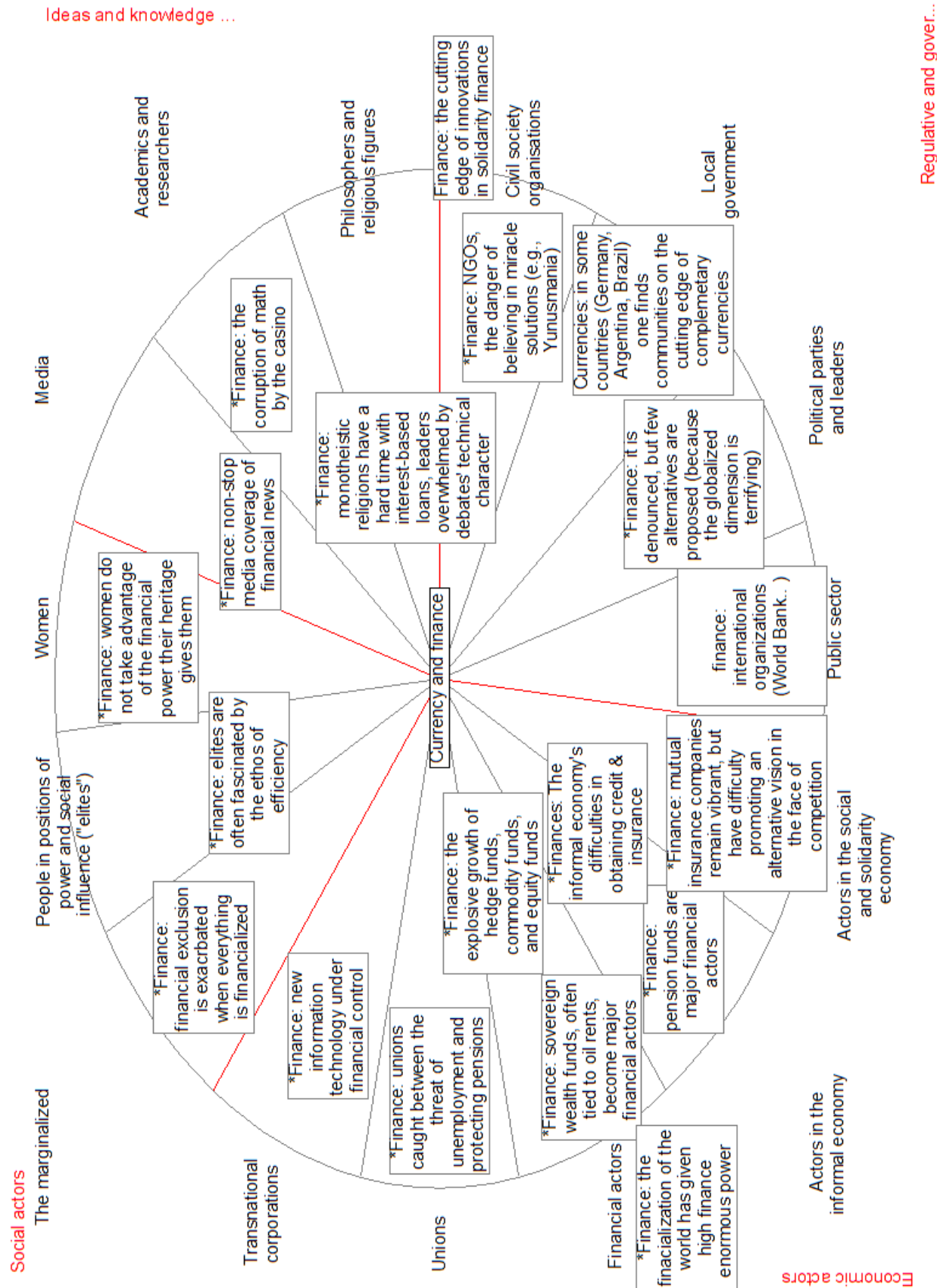
Democracy & citizenship

Legitimacy & rootedness



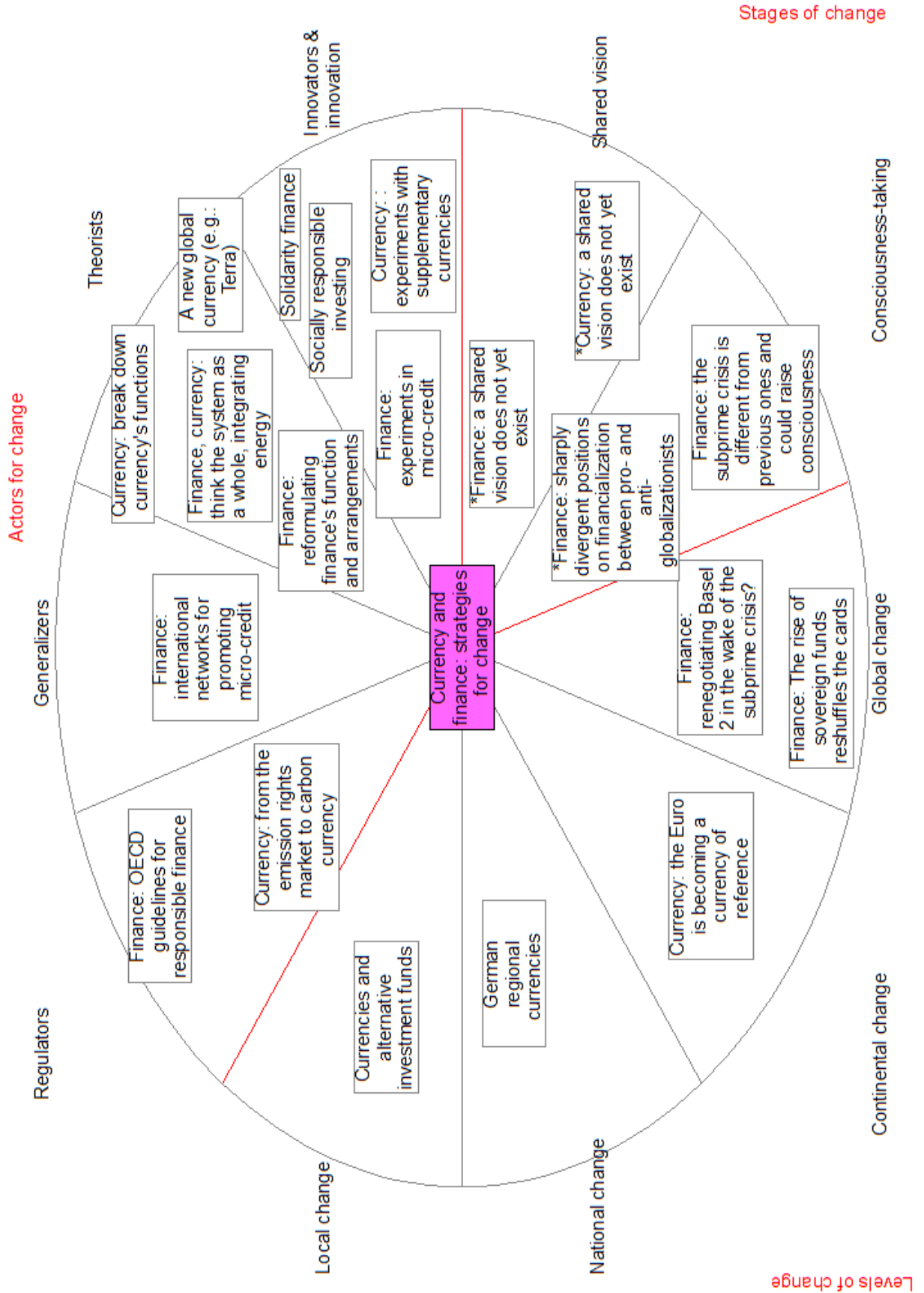
### **The Position of Social Actors in Relation to the Current Monetary and Financial System**

I wanted to consider how various social actors see the way the current system operates and to identify those that are best positioned to conceive of and accomplish reform. To do so, I started with an analytical grid of actors that we have long used at the Foundation. Actors are classified according to four groups: “idea actors” (those who create ideas and beliefs); social actors; economic actors; and regulative actors. To make the map readable, I included, in the long list of possible actors, only those that seemed particularly relevant to the issues at hand. The map refers to fifteen actors. By considering their respective positions, I observed a number of unexpected possible coalitions for systemic reform.



### **What is the Right Strategy for Changing the Monetary and Financial System?**

I wanted to see if it was possible to identify all the conditions required for systemic change. To do so, I used as an analytical grid the three dimensions of “strategies for change” presented in part 1: actors, levels, and stages. After that, I let myself go. I realized that most necessary conditions had been achieved, save for one—the most important: a shared vision.





## **Conclusion**

Here then, briefly presented, is the path to be taken. Readers can—and, I hope, will—try out the experiment on their own. They will perhaps arrive at different analyses and proposals. Other analytical grids are also possible. One simply has to download (for free) the Desmodo software on Exemole’s website ([www.exemole.fr](http://www.exemole.fr)), to spend a little time getting used to it, and to start the adventure oneself. Readers may also download, from the editor’s website ([www.eclm.fr](http://www.eclm.fr)), the thirteen analytical grids used in this book to sketch out their own “Essay on Oeconomy.”

Good luck.

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