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Part I: Putting Things into Perspective

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.[1]

The economy's dominant place in our society is the reason why legions of experts, academics, and practitioners study it so meticulously. Trying to tease out a guiding thread from this throng of facts is as bold as it is necessary.

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?

[1] 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.

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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, and when one realizes that the smallest of things, the tiniest of laws, can have momentous consequences. 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

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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

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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"[2]—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

[2] Jean Bottéro et al., *L'Orient ancien et nous*, Albin Michel, 1996.

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Executives Movement) tend to emphasize the importance of finding a proper balance between 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

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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

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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.[3] 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 mean 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

[3] See the *Heterodox Economics Newsletter*, coordinated by Fred Lee, at www.heterodoxnews.com.

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system.[4] 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—

[4] See Andrei Gratchev's insightful book, *La chute du Kremlin*, Hachette, 1994.

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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.[5] 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.

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

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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.[6]

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 reject the more modest ambition of

[6] 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.

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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

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1935, proved that the general equilibrium theory is based on circular reasoning.[7] René Passet, in his book *The Economy and the Living (L'économique et le vivant),* compares the reproduction of human society with that of the biosphere.[8] 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.[9]

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.[10] 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 endosed by the reigning ideology in a number of ways: it presents the market economy as the only system capable of efficiently creating wealth; it see free trade as the origin and basis 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,

[7] Jacques Sapir, *op. cit.*
[8] René Passet, *L'économique et le vivant*, Economica, 1996.
[9] John Kenneth Galbraith, *Les mensonges de l'économie, vérité pour notre temps*, Grasset, 2004.
[10] Philippe De Woot, *Responsabilités sociales de l'entreprise. Faut-il enchaîner Prométhée ?*, Economica, 2005.

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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.[11] Jacques Généreux has studied the loss of social choice.[12] 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.

[11] See http://www.pekea-fr.org.
[12] J. Généreux, *Les vraies lois de l'économie*, Seuil, 2001.

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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.[13] 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.

[13] F. Caron, "De l'innovation sociale au changement technique," *in Problèmes économiques*, n° 2738, nov. 2001.

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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.[14]

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

[14] E. D. Beinhocker, *The Origin of Wealth*, Harvard Business School Press, 2007.

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explained years ago that the modern world is built on the corporation's centralized organization, 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."[15]

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.[16] 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.

[15] A. D. Chandler, *The Visible Hand: the Managerial Revolution in American business*, Harvard University Press, 1977.
[16] See *La lettre de la régulation*, n° 47, January 2004.

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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 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.[17] 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.[18]

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.[19] Public investments, notably in the defense industry, were made

[17] Victor K. Fung, William K. Fung, and Yoram Wind, *Competing in a Flat World*, Wharton School Publishing, 2007.
[18] Alain Fayol, "L'entrepreneur entre ordre et désordre," in *Alternatives économiques* n° 65, 2005.
[19] Neil Fligstein, "Le mythe du marché : le cas américain," *in Problèmes économiques*, n° 2738, November 2001.

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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 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.[20] 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

[20] "Droit de propriété intellectuelle, marchés financiers et innovations. Une configuration soutenable ?," *in La lettre de la régulation*, n° 45, juillet 2003.

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globalized economic sphere in which major corporations operate and the political sphere, which remains essentially national, has weakened traditional state regulations.[21]

Other forms of regulations are emerging, as Corinne Gendron and Alain Lapointe have noted.[22] 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.[23] In Europe, he claims, a new concept has emerged,

[21] Philippe Norel, *L'invention du marché, une histoire économique de la mondialisation*, Seuil, 2004.
[22] 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.
[23] Pierre Bauby, *Reconstruire l'action publique*, Syros/La Découverte, 1998.

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that of services of general interest. These services are defined by the nature and purpose of the 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."[24] 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

[24] Philippe Hugon, *La lettre de la régulation*, n° 48, avril 2004.

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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 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 Passe draws four lessons from human activity's participation in the biosphere.[25] 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

[25] René Passet *L'économique et le vivant, op. cit.*

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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 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

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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.

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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-

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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 Banks 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 is 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

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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!*).[26] 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

[26] Pierre Judet, *Le tiers-monde n'est pas dans l'impasse*, Éd. Charles Léopold Mayer, 2005.

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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.[27] 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).[28]

[27] Nicolas Meisel and Jacques Ould Aoudia, "La bonne gouvernance est-elle une bonne stratégie de développement," working paper no. 58, AFD, January 2008.
[28] Pierre Calame, "Le contre-exemple asiatique," in *La gouvernance démocratique*, ed. Séverine Bellina, HervéMagro and Violaine de Villemeur, Éditions Karthala, 2008.

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