Disorder and Public Concern Around Globalization

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Introduction

Rebellion is born of the spectacle of irrationality…
But its blind impulse is to demand order in
the midst of chaos, and unity in the very
heart of the ephemeral.

Albert Camus
The Rebel (1951)

After many years of tranquility consisting of an uninterrupted and general improvement in living standards and a victory over the communist world, the Western world and especially Europe, who are committed toward achieving economic and monetary union, again face uncertainty. Governments seem to no longer have the compass that would allow them to find the way to a satisfactory growth, even while the idea that we could enter an era of secular stagnation emerged.

A disorder then establishes in acts and in minds leading to the irrationality that can emerge from a world's state resulting from an undermined consensus and a return to old and discredited ideas. A demand for order in the midst of chaos is thus all the more necessary.

It is certainly difficult for the economist, concerned with rigor and recognition, to conceive disorder and irrationality. The economist wants to imagine a world in which equilibrium is assured by some sort of Laplace's Demon, intelligence that knows all the forces that animate nature and for which nothing would be uncertain. He/she may think that the globalization of trade could enable the emergence of a global economy made up of ultimately autonomous individuals, who would no longer have to yield to any regulation impeding the proper functioning of the market, which would then curiously become more similar to the supposedly omniscient planning of the centralized economies of the communist era.

This globalization is, however, far from marking the end of history, as would agree an economist who neither believes in perpetual tranquility nor permanent chaos. The necessary order is always fragile. It is major and economic events that, putting societies in great difficulty, reveal the true nature of the problems these must solve in order to continue to exist. Financial instability, mass unemployment and international trade imbalances are never definitively overcome. These ills do not result from a divine curse, nor do they constitute a black swan. They are the result of individual and collective behaviors whose coordination is disrupted by the irruption of novelty, when its failure, brought about by finance mistakes, brings the economy out of its stability corridor.

Wealth creation and individual as well as collective well-being improvement conditions are yet and always to be implemented, simply because they reflect societal choices and policy arbitrations. There is no ready to use toolkit available in the hands of economic experts who would only have to designate the best possible decisions to policy makers. Conflicting interests are then inevitable and the political debate is necessary to make possible, through interest negotiation, a wealth creation process.

Without doubt there are forces contributing to secular stagnation, as witnessed by societies over centuries or millennia. It is not possible to rule out the fact that episodes of strong growth that studded the past hundred and 50 years are of an exceptional nature. There is, however, an intellectual laziness specific to economists who want to stick to the effects of phenomena perceived fundamentally as extraneous to the economy, be they natural constraints, technical revolutions or demographic movements.

The weight of beliefs combined with that of general poverty could, over the centuries, impose the vision of a closed world, subject to forces over which humanity has no control, where a human being is the toy of God or of relentless historical developments. The rupture, of which contemporary societies are heirs, came from the moment when man freed himself from these chains and thought himself master of his destiny, for better or for worse.

In this new world, there are no peculiar dynamics of populations, technologies or preferences, that is, independent of institutions. Technologies as preferences do not exist prior to economic and social choices that would be dictated by them. They are on the contrary, the result. Innovation, far from being reducible to the simple diffusion of scientific and technical knowledge, is the economic and social process that makes them emerge at the pace of the ruptures it causes. Private behaviors and public policies, conceived in response to the distortions and imbalances inherent in evolution, determine sequences and bifurcations that structure evolution step after step. Time flows in one direction, but there seems to be no single way out, no historical fatality and predetermined path. Experience shows that there are several effective varieties of capitalism that current globalization is jeopardizing, but without implying that they should be extinguished in favor of a presumed optimal variety.

Episodes of tranquility, steady growth and great moderation, as observed in the early 2000s, created the danger that the weight of uncertainty and irreversibility may lose attention. The effects of time were suspended for a moment, or, more precisely, the mechanical and static vision of a reversible time, which was too often approved by economists, prevailed until instability once again became topical and the ignored forces of uncertainty and irreversibility generated disorder. It was now time to try to contain them and to this end to recognize the contingency of the laws that guide the behavior of individuals and the evolution of societies.

The new globalization, which is none other than the last break to date specific to the essence of capitalism, does not escape the dilemma of contingency and ambiguity of the passage of time. Ecological transition, which is the other dimension of the changes in progress, also does not escape this dilemma. The nature and causes of the wealth of nations have not significantly changed since the beginning of industrial capitalism.

Growth continues to be the fruit of the emergence of innovation that begins a period of turmoil, distortion and creative destruction, whose difficulties are related at the required time to produce the new state of the world. Coordination requirements are not less than in the past. Stakeholders are always entrepreneurs and financiers who have to recurrently arbitrate between the short and long term, as well as between value diversion and creation. It is still public authorities facing the same dilemma and guarantors of the institutional and organizational choices that have to shape the markets, structure social links and ensure the viability of ongoing transitions.

Today's world, like that of yesterday, is torn between short- and long-term requirements, more fundamentally between yielding to the belief in a bright future laid out in advance, whatever happens in the immediate future, and the conviction that only the mastery of current disorders makes it possible to envisage and build a reasonably quiet future.

Conviction should therefore take advantage of the need for political debate to find, through interest negotiation and preservation of diversity, the way of controlling time and creating wealth. This is the essence of a political as well as economic liberalism that recognizes the place of both the market and public authority in this project, which is always working on constituting individuals in society. This is also the essence of democracy that includes the political form likely to ensure the proper functioning of an economy whose evolution is never written, but is carried out on the way. Thus, tension is maintained between a need for stability at the heart of the exercise of democratic power and the systematic questioning of economic and social organization.

In view of this challenge, policy makers, far from the claim of constraining the real starting from the absolute of thought, have the duty to rely on observation to analyze the conditions in which it is possible, along the way, to maintain a permanently fragile order.

Instead of responding to the very easy and ultimately dangerous search for the uniformity of rules recognizing the self-regulation of markets that would have been identified by economists in quest of the ideal, they have to foster institutions that guarantee a spirit of measure and compromise.

The thread that links the following chapters is in line with the perspective outlined above and is based on the conviction – stimulated by current debates on the nature and characteristics of ongoing globalization – that major shocks, in creating enormous difficulties for human societies, reveal the true nature of the problems that these societies must overcome to continue to exist and progress.

Such phenomena, which generate significant economic and social upheavals, are by their nature processes whose configuration cannot result from a "choice" between several alternatives with outcomes that could be established *a priori*.

By "process" we mean an evolution whose successive stages and orientations depend on trial and error, which at every moment creates imbalances and conflicts requiring specific coordination to address and resolve them in order to make society viable and prevent it from collapsing.

This coordination activity naturally takes place over time in accordance with the evolving nature of ongoing changes and with the aim of handling the obstacles that arise at every stage, as a result of the gradual transformation of production capacity at the heart of changes in the operation and functioning of the economy.

The required arbitrations are based on established institutional and organizational forms that guide both private and public actions conducted over time. These forms determine the time horizon that is crucial for the type of decisions taken and the results achieved.

Chapter 1 deals with the split that has occurred in economic facts and ideas since the 1970s with regard to the conditions of regulation of economic activity, in other words relations between the market and the State. The new transition undertaken is perceived as oscillating between an idealized world, in which all regulation would be excluded because it has become unnecessary and a lived world, whose viability would not in any way be assured.

In Chapter 2, it is argued that innovation presented by current globalization does not exempt the need to consider the permanent features of structural changes that are characteristic of market economies. The phenomena of creative destruction are regarded as being at the heart of the change process, requiring the implementation of coordination powers with the conditions governing its exercise being largely dependent on stakeholders' ability to fit into the long term.

Chapter 3 details the entrepreneurial function by proposing to contrast the entrepreneur who coordinates a wealth-creating activity and is part of the long term, with those who exercise their talent mainly for the purpose of diverting value and are part of the short term. The nature of the company is thus questioned at the same time as the ambivalent role of so-called market imperfections is highlighted.

Chapter 4 establishes that two types of financial intermediaries (shareholders or bankers) correspond to the two types of entrepreneur according to the relationship that they have with time. Some engage in the long term with the companies they finance, while others speculate in the short term. Thus, the issue is not the relevance of finance in itself but the degree of patience of capital owners involved in the regulation and organization of the financial sector inevitably altered by globalization.

Chapter 5 focuses on demonstrating that the recent widening of inequalities is largely the result of the behavior of entrepreneurs and financiers, their choice, conditioned by institutions, of prioritizing immediate results and formation of what amounts to annuities. This evolution is not viewed as the testimony of the emergence of a new world order responding to new technological or market conditions but as the outcome of political and social choices compromising the stability of national societies and the international society.

Chapter 6 argues that the control of change requires the recognition of the role of institutions, which are not reducible with regard to the intangible rules embodied in numerical indicators but are diverse because of historical, cultural, social or political differences revealed by their national roots. Nations are therefore still regarded as essential places of coordination since distortions are most visible and felt at their level and have to be addressed under the condition of mastering the articulation of imbalances in time and space.

In Chapter 7, attempts are made to dissociate classical from bastardized liberalism that structured the dominant discourse on globalization and seeks to reduce public action to the application of intangible rules enacted by the doctrine. It then serves as a reminder of what the common good, rule of law and liberal democracy are all about, the real purpose being to make the necessary arbitrations to respond to recurring conflicts of interest and reconcile equity and efficiency in an open society. It then seeks to establish the danger of globalization if it was to follow a slope leading to dualism within various societies and the withdrawal of States that would end up favoring confrontation because of the inability to rely on regulatory cooperation.

1

The New Transition

Globalization, such as it emerged at the turn of the 1990s, marked what some have called the end of history and the advent of an ultimately fully accomplished market economy.

Rather than talking about the end of history, it would be better to recognize, in this globalization, a new and undoubtedly remarkable episode, of what is at the heart of industrial capitalism, namely the recurrent emergence of novelty. Capitalism is not and has never been a stabilized state of society complying with unchanged rules or standards intended to establish an ideal model. Its forms evolved as new challenges were to be overcome. The problem posed by globalization is that of mastering the transition undertaken.

The breaks observed put the established ideas to the test every time. These ideas were too often rooted in the illusion of the optimality or simply the appropriateness of the rules and behaviors in force. Current globalization is no exception. Though the issue in the early 2000s was that of great moderation, meaning that the economy, now free of any discretionary intervention, would experience strong growth without inflation or unemployment, the crisis however contradicted this belief. Banks had to be rescued by States, which then acquired a regulatory function though questioned for several decades. The ideas in vogue, especially those that extolled the expected benefits of globalization, were at odds. Yet, they resisted because it is true that decision makers often remain prisoners of old ideas,

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sometimes very old, in this case, of an approximate reading of Walras and theoreticians of general equilibrium, which led them to prescribe flexibility measures intended to allow economies to move closer[1].

A debate runs through the history of economic ideas that opposes proponents of the existence of an imminent order to agnostics who recognize the recurrence of disorders that arise from irreversibility and uncertainty at the heart of the evolution of market economies.

What supporters of pure and perfect competition have in common with proponents of the possibility of an idealized final state of communism is the idea of wanting to exclude all forms of individual or collective power. The absence of the State in the intellectual construct of the former echoes its disappearance, which is the dream of the latter. The perception of the inevitability of disorder can, on the contrary, only lead to the recognition of the permanency and necessity of the exercise of power, which no doubt has a coercive virtue but more prosaically a coordination function. The globalization we experience, far from eliminating power, changes the conditions of its exercise. The old question remains of what makes a society, the necessity and means to allow individuals to coordinate, and what helps not to eliminate once and for all but to manage conflicts? The impossibility of aggregating individual preferences to make a coherent collective choice, far from constituting a justification for a world devoid of any powers, reveals the need for intermediation, in fact of private or public organizations, exercising authority and power whose boundaries must be known[2].

1 In laying down the conditions for the existence of general economic equilibrium, Walras, followed by Arrow, shows its extremely restrictive nature and never imagines that it would be enough to get closer to it in order to better address the need for coordination. Even under the most favorable hypothesis of decentralization of decision making, forms of organizations promoting social or collective choice are necessary (Walras 1874, 1896; Arrow 1974a).

2 Arrow, in counterpoint to the general equilibrium theory, of which he gave the modern formulation, underscores the tension existing between the individual and society, the failure of the price system to ensure full coordination and recognizes, in so doing, the inevitability of conflicts, the need for organizations and powers they exercise, but also the importance of setting their limits (see Arrow 1974b).

1.1. The world of yesterday

For our contemporaries, the world of yesterday is the one that emerged from the Great Depression and Second World War. State intervention appeared, then, as the essential complement to the market in the function of coordination of economic activity, and thus, in the wealth creation process. This was not because the State was considered omniscient, but because of the role it could play in regulating aggregate demand, by damping out fluctuations that originated in the private sphere, while possibly allowing an increasing of budget deficit and assuming an increase in public debt when the issue of private debt reduction had to be addressed.

The mandate of public authority was not to substitute itself for the market but to help it function better. Its mission was not only motivated by social concerns; it was also on grounds of economic efficiency. It was equally as absurd to think that an integral laissez-faire attitude would likely ensure growth and well-being compared to thinking that the same objective could be achieved by central planning. Keynes refused to have a moral reading of the economy, and rather adopted an ultimately technical approach. For him, the issue was preserving the market economy while not believing that laissez-faire was the key to its effectiveness.

The world that complies with new guidelines is that of developed market economies. It interacts with the communist and developing worlds by having little or no substantial economic ties with them. It witnessed, from the late 1940s and for about three decades, strong and steady growth as well as full employment. The institutional environment associates regulatory State and industrial oligopolies far from a situation of pure and perfect competition[3]. The State uses fiscal policy to regulate economic trends in effect to arbitrate between inflation and unemployment rates within narrow limits. It ensures the regularity of major public investments in infrastructure and research.

3 With regard to the United States, Galbraith (1967) talks of a new industrial State to better denote the close links between the State and companies. Shonfield (1965) shows how different Western countries, each in their own way, have been able to coordinate public and private decisions involving the distant future.

Private companies evolve by focusing more on medium-term planning of their objectives and investments. They are able to mobilize huge amounts of capital to cope with technological development and expanding markets. Corporate planning and aggregate demand regulation are intrinsically linked here, with demand regulation making companies' forecasts less uncertain, their commitments less risky and the decision-making horizon more distant.

High availability of liquidity results in persistently low interest rates and financiers devoid of real powers. A technostructure is established which shows an accentuated separation between capital ownership and companies' management and strategic solidarity between companies' senior executives and management. Despite substantial differences in the organization of powers within companies, agreement regarding the need for equitable sharing of the benefits of growth with employees is made at all levels. This necessity has become a true strategic axis.

The success of this world was, of course, the result of national policies implemented in the aftermath of the war, but it would not have happened if a relative cohesion of international economic relations had not been obtained because of Bretton Woods' agreements. The real objective of these agreements was to reconcile a domestic macroeconomic regulation power based on the existence of internal stabilizers and the search for social justice (through, in particular, unemployment, health and pension insurance) with a necessary international discipline likely to guarantee gradual trade liberalization. The external objectives of trade liberalization were subordinated to domestic objectives, for example full employment, growth and social welfare. The margin for maneuver left to each nation, including terms of external trade exchange, enabled the development of various forms of capitalism distinguished by different approaches to corporate governance, labor markets operation and social regimes. The internal growth of different countries enhanced trade liberalization much more than liberalization-favored growth[4].

4 This subordination was the marker of successful globalization during the period following the Second World War (see Rodrik 2011).

At the time, the restricted circle of Western countries and Japan obtained the means to manage global imbalances resulting from structural changes and differences between countries, while maintaining control over international capital movements. Such control constituted an arrangement that was intended to be permanent. It went hand in hand with fixed (and adjustable) exchange rates such as to guarantee relative independence of domestic economic policies. The required independence was strengthened by two provisions. The first lay in the possibility for each country to request funding from the International Monetary Fund, guarantor of financial stability, in order to address the temporary difficulties in external payments. The second was the possibility of parity changes in the presence of what appeared to be a fundamental imbalance.

Moreover, fixed exchange rates were a favorable peg for the implementation of corporate development strategies. The choice of progressivity in tariff and non-tariff barrier dismantling gave these same companies time to adapt, reducing the destruction of capital which was its consequence, in accordance with the recommendations formulated long ago, in ultimately analogous circumstances, by Adam Smith[5].

This world was too soon perceived as relying solely on the implementation of some principles of aggregate demand regulation responding to the existence of cyclical coordination failures that could be resolved immediately. The existence of structural changes, though at the heart of capitalist market economies, was ignored, along with the awareness of the time needed for the required adjustments to take

5 "The undertaker of a great manufacture who, by the home market being suddenly laid open to the competition of foreigners, should be obliged to abandon his trade, would no doubt suffer very considerably. That part of his capital which had usually been employed in purchasing materials and in paying his workmen, might, without much difficulty, perhaps, find another employment. But that part of which fixed in workhouses, and in the instruments of trade, could scarce be disposed of without considerable loss. The equitable regard, therefore, to his interest requires that changes of this kind should never be introduced suddenly, but slowly, gradually, and after a very long warning" (Smith 1776, IV, 2, p. 471).

place. However, significant changes occurred that had, as sources, the development of social and military programs in the United States in the late 1990s that obviously had nothing to do with any cyclical regulation and questioned the major balances.

This world lost its coherence at the turn of the 1970s. The break with the existing economic and political order resulted in a shock on raw material prices and especially on oil prices, following tensions on the markets owing in particular to strong growth driven by the US public deficit. The situation for States and companies was shattered. States had to deal with the issue of loss of control of the economy as inflation and unemployment rose. Companies had to face the additional challenge of technological change brought about by oil price increas and opening of new markets in a context of liberalization of capital movements. Beyond the ups and downs of the moment and the necessary choice of controlling an inflation that became too strong, a revolution took place in the field of ideas whose effects on behavior gradually spread.

1.2. Toward an economy of supply

The strong and steady growth experienced by Western world economies in the three decades following the end of the Second World War paradoxically brought back ideas that the Great Depression had torn apart. The rules of perfect competition became reference rules, albeit not becoming, in the immediate future, rules of conduct. The ruse of reason consisted of separating the short from the long term. In the short term, the State's ability to regulate demand was still, for a moment, recognized. In the long term, market forces were judged to be the only truly effective forces. Demand could fluctuate but around a trend that obeyed the conditions of labor supply and technology only and constituting an attracting force for the economy.

In the long term, no place was given to money and financial system whose neutrality was postulated. Banks became pure intermediaries between ultimate lenders (households) and ultimate borrowers (companies), their behavior affecting in no way the volumes saved and invested and the trend pattern followed by the economy. There was no alternative to savings invested in corporate investment. The amount of money in circulation, controlled by the Central Bank, was supposed to grow at a rate equivalent to the potential growth rate of the economy.

As for the State, its long-term action was limited to ensuring compliance with full competition rules. In the short term, it could at most control and limit demand fluctuations around the growth path determined solely by supply forces[6].

The economy thus described is a scale model of general market equilibrium defined by Walras. Technological and demographic offer determine potential growth and income distribution. Compliance with competition rules help in getting the best out of them. Prices and factor remunerations are flexible and instantly clear markets. Technologies are at constant returns, if not decreasing[7]. A possible undermining of scientific and technological progress and productivity gains is, in this perspective, only likely to explain the entry into an era of secular stagnation[8].

The paradox is that the economies of the period in which this analysis was made – in the 1950s and 1960s – did not fulfill any of the

6 There is, in this respect, a clear contradiction between the idea that the State has to intervene to maintain full employment and the idea that once this full employment is obtained, it should withdraw and allow market mechanisms to operate freely in the sense of accepting price and wage flexibility.

7 The wide success of the Solow (1956) model depends, in addition to its technical elegance, on the fact that it mentions the possibility of a steady and stable growth, as well as the convergence of the performances of countries lagging behind toward that of the country which takes the lead, and this corresponds to the new situation of the Western world of the time.

8 This is reflected in the current debate on the subject that opposes those expecting new substantial productivity gains from digital technologies (Brynjolfsson and McAffee 2014) and those who attribute to these same technologies much lower performances than what was obtained with those developed in the United States in 1950s (Gordon 2015).

conditions of this general equilibrium[9]. Many prices and wages were controlled, the others were not very flexible. Economies of scale were omnipresent. The State acted on the economy but also on growth capacities through massive public investments, and this, in the dominant economy (the United States) as in catching-up economies (Western European countries and Japan).

This gap between facts and theory never seems to have really posed a problem. There was a period when the so-called Schumpeterian hypothesis was adopted, according to which obtaining a monopoly rent was an incentive to innovate as well as a growth factor. But this situation was quickly circumscribed to the case of backward economies placed in catch-up position, as was the case with European economies after the Second World War, whereas in the case of economies considered to be on the technological frontier, the idea of maintaining or establishing the conditions for competition as close as possible to the ideal type took root again in the 1980s[10]. We are thus called upon to return to the findings of the canonical model. Not without maintaining the confusion with regard to the reality of the competition phenomenon defined as a *state* of the market and not a *process* consists of conflict and rivalry.

The observation that work productivity, far from being regular, follows cycles does not in any way question this doctrine. If there are any fluctuations, they are attributed to random – positive and negative – productivity shocks, which are, however, of low amplitude. These are supposedly natural and optimal equilibrium fluctuations, as they take place in an environment of full competition and comply with the behavior of individuals seeking to maximize their utility. Only price

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9 They are, however, market economies whose exceptional performance contradict the predictions of a Marxism still very present in the intellectual debate of the time.

10 The idea is that technologically backward companies would only innovate (would imitate the best technologies) if they are protected from outside competition, while companies at the technological development frontier would be encouraged to innovate on condition that they are under the threat of competition from their peers (see Acemoglu *et al*. 2006).

rigidities are then assumed to prevent this economy from being at the potentially highest level of production and must be addressed[11].

1.3. Withdrawal of the State

While the idea that growth obeys only supply forces persisted, the idea that the State maintains a short-term regulatory role was undermined. The Keynesian vulgate, which was established in the late 1960s, was part of the belief in the possibility for governments to meticulously and *almost instantly* regulate the economy mainly through public budgets. This belief lost ground on contact with a new reality, the simultaneous rise in inflation and unemployment, and finally yielded to another belief: that governments are permanently incapable of providing discretionary regulation and cannot and should not oppose supposedly self-regulating market forces.

The flow of ideas took place progressively. Even before the problem of the simultaneous increase in inflation and unemployment arose, the debate concerned the respective merits of monetary and fiscal policies between economists sharing the same formal construct, and the same economic model, to the point that everyone intended to follow the Keynesian theory like Friedman, leader of the monetarist theory. The cleavage, which remained apparent on an empirical field, related to the existence or not of a crowding-out effect of private expenditure by public expenditure following a revival of the latter and the ensuing increase in interest rates. A positive response to this question, as per the monetarists, was already questioning the government's regulation ability, especially since the subsequent choice of prioritizing monetary policy led to the exclusion of any discretionary approach to establish a strict rule, the monetary rule, consisting of establishing a growth rate of the quantity of money equal to the product growth rate.

11 The so-called real business cycle theory, formulated late (in the 1980s), aims to maintain the idea that the state of full competition qualifies the natural path toward which the economy must converge (see Kydland and Prescott 1982).

The explanation of the simultaneous increase in inflation and unemployment was at the origin of a real revolution in the history of ideas[12]. The inverse relationship between inflation and unemployment rate – the famous Phillips curve – is maintained insofar as we continue to consider that an increase in unemployment is an obstacle to wage demands and price increase that may follow. But to this is added the perfectly legitimate observation according to which current inflation rate is all the more higher than the expected inflation rate is itself. The economy is in equilibrium when this expectation is confirmed. Its corresponding unemployment rate is called the natural unemployment rate. In this perspective, any revival of activity through budget or monetary means from this position is doomed to failure. Increase in demand weighs on prices, leads to an upward revision of anticipated prices and subsequently an increase in wages, that is, a drop in profitability with the consequence, sooner or later, of rendering inevitable a return to the initial production level and thus, the unemployment rate[13].

In doing so, the inflation issue is dissociated from the employment issue. Inflation once more becomes a purely monetary phenomenon, following excess money creation by the Central Bank that controls it, and unemployment is a real phenomenon, indicative of demographic conditions and the way in which labor, goods and services markets operate. The dichotomy between real and monetary phenomena, at the heart of Walrasian general market equilibrium theory, is reestablished.

Under the new doctrine, the Central Bank now has a primary, if not sole, objective, which includes controlling the inflation rate by controlling the money supply or subsequently, the interest rate. The Central Bank becomes independent and is headed by a Governor convinced by the new ideas, so that monetary policy decisions escape

12 The analysis precedes the occurrence of the phenomenon, with implications for the success achieved (see Phelps 1967; Friedman 1968).

13 Substituting rational expectations for adaptive expectations only pushes the issue further. Consumers and entrepreneurs, knowing what will happen, act in such a way as to counteract, *instantly*, the effects of public policies. No difference in equilibrium may be possible in the short term.

voters' pressures, considered inappropriate by proponents of the new doctrine. With regard to the government, it is up to it to ensure the balance of its accounts. Reducing budget deficit to restore this balance may, certainly, first lead to a rise in the unemployment rate that becomes higher than the natural unemployment rate, but the downward revision of wage and price expectations is assumed to ensure the reduction of this unemployment and a decrease in inflation rate. Therefore, the government must simply ensure the proper functioning of markets, that is, eliminating rigidities, both those of the labor and goods markets, whose only effect would be to increase the natural unemployment rate.

Concretely, in the course of the 1980s, inflation was overcome at the same time as inflationary expectations because of monetary constraint, which is not surprising in itself, as it is true that there cannot be a price increase without monetary facilities. Mass unemployment, where it continued to exist in Continental Europe, was presented as the consequence of the refusal to implement specific structural reforms to ensure market flexibility and reduce the natural unemployment rate.

The advantage of the new doctrine was simplicity. It marked the return of ideas that prevailed before Keynes. All that was left was to establish it in practice. This was facilitated by trade globalization through the establishment of liberalized finance as some sort of *deus ex machina* whose action was supposed to discipline bad students, companies and governments. Yet we must believe in the efficiency of financial markets, in other words in their absolute neutrality with regard to fundamentals including technologies and preferences.

1.4. Idealized globalization

Globalization, idealized by its supporters, is in line with this evolution of ideas. This is the presumed optimal situation characterized by total market liberalization as well as budgetary and monetary neutrality of governments whose share is reduced, independently of sovereign tasks devolved to them, to ensure compliance with full competition rules. The dream would all the more easily become reality as globalized financial markets would have the virtue of disciplining governments and companies, the former to ensure their budget balance, and the latter to meet the goal of maximization of the value of shares. There would thus exist an optimal variety of capitalism to which all countries would have to comply. Poor micro- and macroeconomic performance would be caused by discretionary and therefore inappropriate interventions by governments and institutional failures, in particular, the maintenance of rigidities in goods and factor markets. In this virtual world, not only is the State neutralized, but companies are overshadowed by markets, becoming a mere collection of tradable assets.

The dream world is none other than that of pure and perfect competition brought up to date by the new classical school, the world of general market equilibrium imagined by Walras, which is a social optimum in the sense of Pareto, a state in which the situation of one of the agents cannot be improved without deteriorating the situation of another, but also a state in which the enormous wealth of a small number can go along with the poverty of all the others.

This world is, *de facto*, devoid of institutions. It brings together in the various markets large numbers of people, deprived of all powers and whose demand and supply decisions depend on equilibrium prices communicated by the market[14]. These autonomous individuals, who are freed from any constraint related to the belonging to a social, ethnic or religious group or affiliated with a particular institutional system, stick to maximizing their utility[15]. Social interaction is presumed purposeless when the price system is optimal from the outset, ensuring perfect coordination between individuals. Consumers and suppliers are in direct contact via this system. There is no

14 Analytically, they are established by a fictional character outside the field of economics that Walras calls the auctioneer or the market secretary, who represents Adam Smith's invisible hand, and which is rather distant.

15 Phelps is in line with this perspective when he attributes the mass prosperity characteristic of modern societies to this detachment of individuals from any social constraint that makes them capable of exercising their creativity, source of growth (see Phelps 2013).

intermediary or if one formally exists, he/she does not play any specific role, and does not interfere with decisions actually taken[16].

The absence of the third party in the exchange reflects the absence of conflict or imbalance that would require the involvement of an arbitration and coordination function. The State has to remain neutral by ensuring that its revenues and expenditures do not interfere with private choices of resource allocation. Money and finance are simple veils that cover, without altering, the real economy, the one structured by individual preferences, technologies and the relative prices resulting from it. Once the factors of production are remunerated for their contribution to the production activity (marginal productivity), they absorb the whole of the earnings and corporate profit is nil. There is no room in this context for entrepreneurs carrying out an organizational activity, as producers are assumed to react mechanically and optimally to price signals sent by perfectly competitive markets.

This world of pure and perfect competition is *out of time* even in its modern sense[17]. Present and future decisions are taken simultaneously in relation to the knowledge of different states of nature. The number of goods is multiplied, each of them designated by the place and time of exchange. Future events are brought back to present time. Expectations are assumed to be perfect or more subtly rational when errors are allowed, provided they are purely random and do not force individuals to change their plans and behaviors. What happens in the short term has no influence on the long-term trajectory of the entire economy contained in the attributes of individual preferences and present as well as future technologies. Finally, governments that may make mistakes are only those that would want to contravene the fundamentals, face the temporal incoherence of their successive policies, and end up conflicting with the expectations of individuals.

16 Economic theory is here limited to the study of individual choice, but intends to become the science of human behavior and is not interested in social institutions including businesses, goods, labor and financial markets or banking systems (see Coase 1978).

17 The multiplication of markets (a market for each good at every moment and place) and the introduction of intertemporal choices do not change the fact that all decisions are made at the same time (see Arrow and Debreu 1954).

Rational expectations most often lent to individuals imply excluding non-routine changes, in fact any innovation that brings about radical uncertainty. Preserving the principle, while recognizing that the information held by individuals is imperfect, allows the financial market efficiency hypothesis to be modified, but reference to the ideal of perfect competition in its prescriptive dimension remains. The elimination of market distortions should particularly ensure that the prices of financial assets reflect true values, those dictated by the state of technology and preferences[18]. The globalization sought remains the idealized globalization.

Implicit reference to the virtual world of perfect competition has become all the more significant since the obstacle to the existence of such a world, including increasing returns to scale, has disappeared. The new industrial revolution promoted by the development of the digital economy would have the virtue of favoring the deconcentration and decentralization of production activities and even eliminating all forms of intermediation directly, bringing suppliers and consumers into contact, thus making the existence of a competitive equilibrium possible. The theory's omnipotent individual, both consumer and producer, solely in search of maximum utility, would become the standard individual of the new globalized economy.

1.5. Between dream and reality

The globalization we experience presents features that are primarily the product of dream, but a necessarily disguised dream. This is the case with the decline desired or suffered by the modern State. Rules prevail over discretionary choices. Social choices are increasingly subordinated to economic requirements assimilated to

18 "The Rational Expectations hypothesis transformed the Efficient Market Hypothesis statement that 'asset prices always fully reflect the available information', from a descriptive hypothesis about markets into a supposedly normative theory of asset markets with a central implication: barring informational asymmetries and other market failures, markets populated by 'rational individuals' are stable, in the sense that they set prices to fluctuate randomly around intrinsic values" (Frydman and Goldberg 2011, p. 94).

immanent market forces brought back to the mechanics of individual choices. Economic policy domestic objectives concede to the need for global liberalization of markets. Structural reforms with the objective of ensuring the flexibility or fluidity of markets are promoted, in other words a systematically strong and rapid response of prices and wages that are supposed to guarantee market equilibrium. Legal systems – norms – compete with one another and are the subject of selection carried out by individuals maximizing their utility, in effect by companies seeking the best fiscal and social offer.

The new liberalism, from this essential point of view, is a reversal of classical liberalism. The rule of law makes way for the rule of *individual* calculation of utility, as it was able to make room for the rule of *social* calculation of utility at the time of real communism. Indicators intended to serve as a guide to public and private behaviors, whether stock market share values or public debt rates to gross domestic product ratios, give a picture of the belief preceding their development rather than the reality itself, if by that we mean the company or country performance[19]. Dream establishes performance measure simultaneously with behaviors controlled by this measure. In a somewhat paradoxical way, the *homo economicus*, abstract and despised as it may be, finds its place in the new world when the various actors are ordered to comply with the enacted rules.

The globalization we experience has, at the same time, features that clearly put the dream at odds. Certainly, tertiarization, relative dematerialization and computerization, which characterize the profound transformations of production activity, may suggest that new technologies have properties, which make them compatible with full competition. They tend to render the image of the factory as a preferred place of production outdated and that of machines as the main expression of technology. The product industry is outweighed by that of function. It is less a matter of providing products than solving problems. Customers become actors in the production process. The

19 This governance by numbers is deployed in business practice but also in what is sometimes referred to as the economic analysis of law, in order to make a quantitative ranking of performances attributed to different legal systems. It upsets old legal frameworks by relying on supposed globalization requirements (see Supiot 2015).

interaction of successive production phases is increasingly stronger, without this implying that it operates in a single company and is worth integrating.

The extension of roundabout production remains a central characteristic of growth-promoting technological changes that require the implementation of heavy equipment investments. Economies of scale are still very present even though they are, more and more often, obtained through the establishment of corporate networks and fragmentation of value chains[20].

The development and transformation of global markets, to a large extent, consist of the emergence of new oligopolies. The dominant practices remain monopolistic practices. One of the characteristics of the final goods markets structured by new information and communication technologies is that they are large demand markets whose supply is captured by a small number, if not even by one seller. Major intermediaries develop technological platforms that put final supply and demand in contact and exercise a particularly high market power[21].

The intervention or regulation capacity of the State is certainly reduced. However, their purpose is still valid. National communities shaped by culture, history and geography continue to exist. When, contrary to expectations, there is divergence in their actual performance, as is the case between euro zone countries, it is still the States that are required to and should intervene. They do so with the means at their disposal, that is, by practicing forms of tax and social competition with the avowed purpose of strengthening corporate

20 As will be seen below, other types of change and investment may prevail, which exclude economies of scale, but do not have the same impact on employment and productivity.

21 The fact that certain supplies can be made at a marginal cost that is almost nil, far from meaning that profit becomes zero as is the case with perfect competition, falls, on the contrary, in a context of imperfect markets, dominated by oligopolies if not even, by monopolies preserving their market power. If the price is low or even zero, it is because profit is charged otherwise, for example through advertisements or sale of collected data.

competitiveness to obtain a surplus in their foreign trade. Disorder then arises from the functioning of markets whose characteristics are in no way similar to those dreamed and powers whose exercise can no longer ensure the necessary coordination.

1.6. Viability in question

Thus, for several decades, the market has taken precedence over public regulation and the attention given to individual behaviors has outweighed that relating to social interaction requirements. These requirements have never disappeared. We cannot refute the ever-renewed existence of these difficulties of acting together encountered by economic actors, different from each other and poorly informed, inheriting constraints resulting from their past mistakes, belonging to heterogeneous and antagonistic social groups, and motivated as much as subjected to change. They cannot disappear simply because of the discovery of the right incentives guiding individual behaviors that have become optimal. They are in the nature of a process relating to the creation and destruction of capacities and competencies with never fully anticipated consequences. They appear in the short term and structure the long term in an irreversible manner. We must invest today to produce and consume tomorrow, but without knowing for sure what tomorrow will be made of. The adoption of rules and practices that conform to the claimed ideal could translate into more instability intrinsically linked to the behavior of companies and public authorities that have become incapable of controlling the long term, because they do not recognize the inevitable nature of conflicts and, as a result, of devising ways and means to deal with them[22].

In an uncertain world with irreversible evolution, the market is not a simple place for recording information that ultimately belongs to isolated individuals. It is a place of *discovery*, *confrontation* and *rivalry*, of *trial and error* with the stakes being nothing less than the viability of these economies permanently subjected to technological

22 In fact, market economies have been showing signs of a return to instability since the late 1980s, particularly with respect to the recurrence of financial crises that had disappeared between 1937 and 1987 (see Krugman 2009).

and preferential changes. The superiority of market economy, when it is obvious, lies in its ability to promote slow and gradual adjustments that ensure the resolution of imbalances[23]. In this economy, the experience of yesterday's world teaches that frictions and rigidities, far from being an anomaly that should be eliminated, have a proven usefulness. While they enhance the widening of the time horizon of different actors, they however make it possible to control a necessarily irregular evolution, and guarantee that the economy stays within the limits of a stability corridor.

Proponents of an idealized world see it as a source of distortions that can impede the smooth functioning of the economy, while the informed observation of yesterday's world makes it possible to see factors, although now weakened, of stabilization. Indeed, they cannot be reduced to regulatory constraints that introduce distortions in individual choices, which is most often emphasized. Observation and theory teach us that they respond to rationally assumed choices and are the result of the experience arising from *social interaction*: the experience of the functioning of market economies that helped to shape them and are in line with *contingent social norms*. These norms, far from producing an immutable order, evolve in response to the events they help to guide, as was the case after the Great Depression and Second World War, leading to a reduction in income and wealth inequalities, a source of cohesion and efficiency. They are at the heart of regulatory mechanisms of which it would be hardly credible to imagine that they are simply a substitute for the confidence that individuals should have in each other in a spontaneously well-ordered society.

23 The market is considered here not as a state but as a *process,* implying that technologies and preferences are not data but a result of evolution. Moreover, the presumed advantage of the market process is to ensure the resolution of imbalances through slow and gradual adjustments, if only because it takes time to explore the relative merits of available alternatives and thereafter, not being the place of cumulative sequencing in the wrong directions, contrary to what is observed in planned economies marked by the rationing of some goods and the disposal of others (see Hayek 1948).

2

The Constraints of Innovation

Innovation comprising globalization not only but also ecological transition, which is one of its dimensions, should not prevent us from considering the permanent features of structural changes, which are, in the nature of capitalist market economies, organized on an industrial basis. Roundabout methods of production are more than ever necessary for growth and development[1]. The phenomena of creative destruction remain at the heart of change. They require the establishment of coordination means that are nothing but powers in the hands of organizations and institutions, whose exercise conditions are determinant of the ability of economies to take advantage of opportunities arising from market expansion and exploitation of new technologies, in fact to control *time constraints* that stick to the irreversibility of decisions made with reference to a future inevitably and radically uncertain.

2.1. A truly industrial world

It is not the invisible hand of the market that ensures resource allocation and its creation, but the *visible hand* of organizations[2],

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1 The idea that *growth* is a quantitative measure, resulting from qualitative changes that characterize *development* is taken from Schumpeter (see Georgescu-Roegen 1976).

2 Chandler (1977, 1981) mentions this visible hand to describe the managerial revolution that characterized American capitalism at the end of the 19th Century with the emergence of large businesses.

Disorder and Public Concern Around Globalization,
First Edition. Mario Amendola and Jean-Luc Gaffard.

which is part of the division of labor. This has a double face: once achieved, it ensures maximum use of existing productive resources, but it in itself induces the search for new technologies and markets and the involvement of new productive processes that systematically challenge it.

The advantage of the division of labor is that, by specializing tasks and assigning specific factors to them, it increases the rate of utilization of capital goods and human resources and as a result makes physical and human capital[3] investment profitable.

This advantage is subject to several conditions. Since the division of labor leads to an increase in production scale, this is only possible if the market size is large enough[4]. In the absence of sufficient demand, there are no incentives to introduce specific equipment or mobilize specialized skills, and the division of labor is less profound.

At the same time, the division of labor creates incentives for a systematic introduction of more efficient technologies and new products that involve a redefinition of the partitioning of production processes and boundaries between companies. When a new task is circumscribed, the idea to design and implement its specific equipment comes naturally. The division of labor requires, no less systematically, the search for new markets. Organization of the industry is the (always provisional) result of the conditions for selection and implementation of their activities by companies. Since companies are constantly looking for opportunities offered by the deepening of the division of labor, they implement strategies that are likely to change the structures of the industry in different directions,

3 Physical and human capital are not consumed at once in an elementary production process such as with intermediate goods or natural resources, nor are they used continuously in the same process. Such that the main economic problem is to reduce their degree of idleness, whose solution lies in a specific arrangement of elementary processes, that is the so-called industrial organization mode (see Georgescu-Roegen 1971, IX).

4 Adam Smith (1776) establishes this link between the division of labor and market extension, which he sets as the real cause of the wealth of nations, though not without considering that this division is social and technical.

whether with regard to horizontal concentration, vertical integration or subcontracting and outsourcing, to respond to changing technological and market conditions. The disruption of geographical locations of activities, international fragmentation of production and relocations are nothing but the expression of this continuous upset.

Globalization does not put an end to this industrial fact, not because the manufacturing industry continues to dominate everywhere in terms of added value and employment but because the industry is, in terms of economic analysis, an organization mode likely to concern all activity sectors including the services sector as well as the primary source of productivity gains. There is no need, in this case, to distinguish service activities from the manufacturing activity, as it is true that physical production and R&D or marketing services are closely complementary and fall under the same organization mode[5]. Though these services, formerly carried out internally, have been outsourced, it does not change the diagnosis of an omnipresence of the industrial fact.

Ecological transition – this other dimension of ongoing changes – does not call for an end to the industrial organization of productive activity. It requires the design of "clean" or recycling technologies, that is a deep renewal of the industrial fabric, the implementation of which remains subject to a sufficiently large demand for "green" goods and services, except to consider that it can be part of a world of small production units or even a world of productive consumers, where the utopias of total market and primitive communism meet[6].

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5 It is important to observe the case of Amazon that has industrialized the working of its warehouses as well as that of the services that help to generate an increase in the volumes of demand addressed to it or even the case of Tesla whose huge factory (one million square meters) brings together all design and assembly operations in the same location to reduce costs by increasing the volumes produced.

6 However, the key question of ecological transition remains natural resource consumption and pollutant emissions, which considerably increased with the industrial organization of activity and which would be necessary to substantially reduce not without effect on the future of this organization (see Georgescu-Roegen 1971).

What, then, is globalization or ecological transition if not the emergence of new opportunities along with the expansion of demand, deepening of the division of labor and the creation of new technologies? The fact remains that the necessary adaptations, in effect the implementation of new productive capacities, take time within an institutional context that is itself significantly modified.

2.2. Roundabout production

Physical and human capital investment decisions constituting production capacities are irreversible. Changes, the introduction of a new technique and exploration of a new market, partly make the existing capital *obsolete* and require the production of a *new* one. This marks the beginning of a transition period during which the constraints of previous decisions (the state of physical and financial stocks partly improperly constituted) affect current decisions that will themselves affect subsequent states. This is thus the way to think the innovation process: a process of *progressive* substitution and *confronting* new productive capacities with old ones, meaning that it is never possible to use the old capacity to produce new goods and services[7].

Roundabout production is inevitable[8]. Time is needed to build a new production capacity before it can be used and bring about benefits. Generally, the cost for building this new capacity is higher than that of the simple replacement of the existing capacity, if only the workforce reskilling costs. These additional costs must be covered before the corresponding supplementary revenues can be collected. They are *sunk costs* in the sense that they are involved before future revenues, which justify them, are obtained and, of course, they may

7 Capital goods are not transferable from one type of production process to another. On the other hand, capital defined as a resource fund provides the means to carry out this process substitution.

8 The theory of capital based on the concept of roundabout production was introduced by Böhm Bawerk, further developed by Wicksell (1934) and Hayek (1941), and finally revised by Hicks who calls it a Neo-Austrian theory of capital (Hicks 1973).

not to be recovered, in case of failure, by selling the corresponding assets, whether specific machines or intangible assets[9].

It may happen, specifically, that this increase in building costs, although more than offset by the subsequent decrease in utilization costs, weighs, *for a while*, on investment in capacity. Investment in cost does not change, but investment in capacity decreases as the resources committed remain the same. The effect is a temporary reduction in the gross product of the economy, which results in a rise in the unemployment rate at a constant wage rate, what we call the Ricardo *machinery effect*[10] and a drop in productivity when employment does not sufficiently decline, the so-called *productivity paradox*. It is only when the new capacity becomes operational that the decrease in utilization costs gradually allows the release of additional resources and increase in the gross product, thus investment in capacity and finally, the capacity used. Neither does the decline in employment nor that in productivity have anything to do here with the properties of the implemented technique. They are not related to the nature of the new technology, but to the transition process itself, which causes distortions of the *temporal* structure of production capacity[11].

Under the assumption of full coordination between supply and demand, there is no real obstacle to innovation thus described. The economy mechanically converges toward the new equilibrium.

9 It is worth noting that in the case of UBER taxis platform, drivers buy their vehicles on the basis of promises of revenue that may not be kept by the platform owners who relieve themselves of the burden of sunk costs.

10 Ricardo, in the third edition of *On the Principles of Political Economy and Taxation*, returns to the controversy over the effect of the introduction of machines on employment to maintain that new technique never destroys jobs *per se*, but to show, nevertheless, that technological change, because of the time required to build new machines, is accompanied by a rise in unemployment.

11 Hicks studied the effects of a technical change (of an impulse) on the profile of the economy, on the basis of a representation of production whereby time is necessary to build a new production capacity and gave a robust analytical content to Ricardo's machinery effect (see Hicks 1973).

Distortions of productive capacity are mechanically reduced. The desired productivity gains, fully anticipated, are finally obtained. Unemployment is transitory, as is the decline in productivity gains. At worst, the issue is limited to the time required for the dissemination of new technologies without this period having any influence on the final result[12].

At the microlevel, things are not much different. Companies that innovate by introducing superior technology, temporarily record an increase in their average cost and a decrease in their margin rate. But they know their market and the trajectory they will follow, and all they need is time to master the new technology, a period whose duration does not affect the result either. Investment in capacity, for a given period, will be gradually increased as the margin rate increases. Future gains are compared to current losses, ensuring the rationality of the innovation strategy pursued[13].

Analyzing roundabout methods of production may not seem relevant if the distortions observed are temporary. This objection is not sustainable. The reason being that the full coordination hypothesis is no more credible in the long term than in the short term due to the propagation of market imbalances via involuntary accumulated stocks. The path followed by the economy proceeds from the distortions that result from changes in productive capacity made necessary by the emergence of innovation. This is what happens along the way, and therefore the manner in which the imbalances are addressed determines the profile of the path followed: not only the evolution of the product and employment but also the nature of the technologies actually implemented and the related preferences[14].

12 According to the reference model, distortions of the temporal structure of the productive capacity are enough to generate real fluctuations, but, except for a new impulse, they are finally amortized and the economy converges toward the new equilibrium (Hicks 1973).

13 It should be noted that this company has no rival or, preferably, that competition has reached its end, which is accounted for by a perfect competition state.

14 Analytically, in the absence of full coordination, goods markets are no longer cleared, prices and wages react more or less quickly to imbalances and exchanges

2.3. A creative destruction process

Schumpeter's view on innovation consists of producing new goods as well as opening up new markets or reorganizing industries. Its essential characteristic includes breaking existing equilibria. It contradicts forecasts and requires the destruction as well as creation of capacities[15].

Though the reality of creative destruction processes may not be ignored, there are, however, so many ways to divert their meaning and eliminate, by thought, its essentially *temporal* dimension. This is what the popular economic models lead to. They serve as a justification for the application of market rules that are intended to achieve the growth that globalization would impose. These models only take into account flows observed ex post in jobs destruction and creation and only question their actual size, which depends on the institutional environment. The intensity of these flows alone counts and constitutes a technological and institutional datum that characterizes the long-term profile of the economy and determines its potential growth rate as well as unemployment rate described as natural. The flexibility of markets characterizing the state of full competition is supposed to enable an increase of both[16]. The issue is never the process that generates these flows and its influence on their nature and size. Real or financial assets that are improperly constituted due to uncertainty and errors committed are never taken into consideration, nor, of course, are their effects in terms of the propagation of imbalances. The only real challenge is institutional. This concerns reducing the limitations on destruction and creation flows. The only question concerns the incentives that should prevail and the only solution lies

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require reaction modes and monetary intermediation that guide evolution (see Amendola and Gaffard 1988, 1998, 2006).

15 Schumpeter defines, analytically, innovation as a break in the circular flow that is nothing but the Walras' general equilibrium and not as a simple progress in scientific and technical knowledge (Schumpeter 1934). He presents creative destruction characteristic of innovation as an out of equilibrium process (Schumpeter 1941).

16 In this case, we observe a growth in the unemployment rate along with a rise in the job vacancy rate as a result of an increase in the intensity of creation and destruction flows. They are the result of duration of matching periods, which anyway is not very long.

in the adoption of *appropriate institutional rules*, whether they govern labor, goods or financial markets. In this way, it can be explained that labor market specific regulations are an obstacle to the redistribution of resources as they give employees too much power. It can be argued that banking reforms, by eliminating government interference with bank lending decisions and ensuring greater competition among banks, favor the selection of the most efficient companies and thus, positively influence the overall performance of industries. We can advocate for the development of financial markets in place of banking intermediation. Emphasis can be laid on the fact that the deregulation of domestic markets or international openness ensures productivity gains by stimulating the selection of the most efficient companies. Moreover, we can imagine that the adoption of such an approach will have an immediate effect by restoring the trust of companies as well as households now convinced of the legitimacy of the reforms undertaken.

Attention is then focused on the possible existence of suboptimal states, attributed to an *institution failure*. Individuals are expected to know about the working of the economy and do not make systematic mistakes. No propagation phenomenon is even mentioned. At most, these individuals can be locked in a bad equilibrium characterized by a low growth rate, because they are compelled by bad institutions systematically assimilated to any form of rigidity. The solution lies in the fluidity of markets, in fact in the absence of real institutions.

This view ignores the existence of disorders that are rather inherent in the choice to engage in a creative destruction process, both inevitable and likely to intensify at the discretion of the reactions they generate.

These disorders that fuel the process of change are not the outcome of individual deviant behavior. They result more simply from the innovative choice of entrepreneurs, which implies to make irreversible investments without actually knowing what will happen along the way. They characterize an *imperfect knowledge economy*[17].

17 In this economy, creativity increases uncertainty. The future consequences of an innovative action create ambiguity. Entrepreneurs should base their decisions on their

Bets are made on the future but also reservations with regard to the use of resources. *Errors* are made and *constraints* that could not be fully anticipated arise. These errors are fossilized in the physical and human capital stock, in the holding of financial assets or emergence of unexpected debts that control the future course of events. Market imbalances are transmitted from one period to another, either *amplifying or dampening*, depending on the adaptations made, otherwise according to the magnitude and speed of reactions they provoke: the long term is subject to the short term with its train of hazards[18]. In other words, coordination difficulties inevitably arise and it is important to establish the way in which they can be solved. Two approaches are possible here: that which consists of assuming that they arise only as an effect of market forces, when the market is freed from any rigidity, and that of recognizing the complex interaction of institutions, including the market that remains a place of friction and imperfections, as an expression of the powers exercised therein[19].

2.4. Coordination requirement

The theory of general market equilibrium, which serves as the basis for the analysis of dreamed globalization, is specific in that it advocates a perfect coordination between supply and demand, which passes solely through the channel of prices *instantly established to their optimal level*. Modern economic analysis, which contrasts with this theory, emphasizes on incentives that determine individual behaviors that are considered mutually compatible even if on a bad equilibrium. If there is a coordination failure, it is not because errors

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"animal spirits". Innovations are launched while profits and costs are *discovered* later. All elements that lead to refute the rational expectations hypothesis (see Phelps 2013).

18 "The long run is a misleading guide to current affairs. In the long run, we are all dead. Economists set themselves too easy, too useless a task if in tempestuous seasons then can only tell us that when the storm is long past the ocean is flat again" (Keynes 1923, p. 65).

19 For Hayek (1948) and Phelps (2013), the market is inherently imperfect, but it is from it that we should expect the discovery of information. Richardson (1960, 1998) goes further by recognizing in market imperfections the source of relevant information.

are made requiring adjustments *out of equilibrium*; it is because coordination, always instantaneous, takes place on a bad or non-optimal equilibrium. The incentives that lead to this equilibrium are the result of bad institutions. They are *de facto* out of time by assuming that the same cause – in this case, incentives and institutions that control them – always produces the same effect according to a constant law such as the laws governing mechanics[20].

The reality is different. It is an illusion to consider that coordination takes place because of the only price variations that would guarantee the convergence toward equilibrium. On the contrary, the dynamics initiated can become chaotic. Current imbalances do not necessarily communicate the right signals. The resulting price or wage changes do not definitely go in the right direction and the effects will be all the more damaging as these changes become stronger. Since then, it seems preferable that prices are relatively rigid, preventing imbalances from becoming cumulative[21,22]. Coordination is, nevertheless, not assured. It proceeds from the conditions of articulation of supply and demand over time, involving stock and flow variations responding to imbalances and contributing to price formation[23].

In goods markets, the increased supply of goods due to a scale effect is not necessarily compatible with the size of demand as it results from remuneration levels and income distribution. The creative

20 Hicks (1979) talks in this regard of contemporary causality that he opposes to sequential causality.

21 Marshall (1920), observing the chaotic dynamics that may result from price and quantity variations owing to market imbalances, adopts the hypothesis of short-term fixed prices with a view to viability and justified the rigidity of wages for reasons of equity and efficiency (see Leijonhufvud 1994; Hicks 1974).

22 Nor should prices be subject a temporary increase in cost when it comes to smoothing demand fluctuations and thus maximizing the intertemporal utility of consumers. An intertemporal budget constraint is preferable to a sequence of periodic budget constraints (see Laffont and Tirole 1999).

23 Kaldor (1972) established the complexity of an out-of-equilibrium coordination, including the consideration of the sequence of events structuring markets involved over time.

destruction process then confronts an *insufficient demand*. From a global perspective, generating sufficient demand passes through various channels. A first possibility, widely exploited by England at the onset of the industrial revolution and recently in emerging countries, consists of resorting to foreign demand. A second possibility, at the heart of the strong growth witnessed in the years after the Second World War, is the distribution of a significant fraction of productivity gains to employees. This redistribution is not only, as some people imagine, a matter of incentives aimed at ensuring that individuals reveal their true productivity, but first and foremost a matter of coordination between aggregate supply and aggregate demand. It responds to a political or social choice, whose effects will take time to materialize, as illustrated by American history.

It is possible to maintain the level of capacity investment despite the increase in costs of building new capacities as long as companies have access to external financial resources provided by banks or financial markets, which make up for the shortage of internal resources. The rise in unemployment and the drop in productivity gains will be reduced. Temporary inflationary pressures could result where an increase made in payroll fuels final demand without immediate counterpart on the side of the supply of consumer goods.

Attempting to prevent such tensions by increasing interest rates would likely result in the decrease in financial assets prices and thus, less access to external financing, the consequence of which would be to restrain required investments. In fact, this increase in interest rates, which corresponds to the expected rise in profit rate, would come too soon[24].

While access to external financial resources, whether through banks or financial markets, is a necessary condition to successfully carry out an innovation strategy, it is also necessary that the available liquidity be actually allocated to expenses that would allow and justify

24 This analysis reveals the complexity of the relationship between interest rates and the levels of activity and employment in expansion as well in recession phases, justifying their relative rigidity (see Leijonhufvud 1981; Hicks 1989, Chapter 9).

roundabout methods of production. It is not automatic that companies borrow all the available liquidity to invest. They may primarily seek to clear their debts. They may consider that their order book is insufficient, but above all, that their *time horizon* is too limited to use available credit lines and make long-term investments. At the same time, banks may prefer to ration credit rather than charge higher interest rates that make them run the risk of favoring more adventurous borrowers or cheats. In addition, capital holders, starting with banks, make arbitrations including the possibility of holding financial or even physical assets (real estate in particular) traded on markets that can be described as used markets, a choice giving rise to speculation operations. The consequence of such an activity, possibly fueled by monetary facilities, is that high amounts of available liquidity cause an increase in the price of the assets involved and contribute to the formation of bubbles without having any effect on the actual consumption and investment activity and therefore growth.

The creative destruction process is synonymous with the formation of opposing imbalances on the different labor markets concerned: excess of demand on some, and excess of supply on others. Some qualifications are lacking, while others are in excess. The result, on the one hand, is an increase in the number of vacancies and, on the other hand, a rise in the number of unemployed – on the one hand, a possible increase in wages and, on the other hand, a decrease. Increasing the wages of some may reduce investment capacity. Blocking them contravenes the expected rise in productivity. Decreasing the wages of others may reduce the final demand. The asymmetry of wage changes, more flexible upwards than downwards, generates an inflationary bias that is likely to intensify. The required coordination on labor markets is definitely complex. It is a matter of organization and time, the time required for mobility to take place.

2.5. Coordination power

In an immutable world, individuals would end up learning and being able to make rational expectations, thus rendering unnecessary those institutions whose object is to coordinate their actions. There would be no need for companies, money or State in an economy without a past or future, and considered *out of time*. By contrast, in a changing world, not only do individuals learn by *trial and error*, but such learning requires *organization* and different forms of *hierarchy* within each organization and between organizations[25]. In an economy where increasing returns to scale and competition coexist, the articulation between supply and demand forces takes place out of equilibrium and the coordination requires institutionalized forms of intermediation. Merchants and bankers were the first intermediaries. Companies, modern finance and, of course, public authorities play this role.

The company does not really exist in the fully coordinated world of perfect competition in which, moreover, the corporate profit (defined without remuneration of the factors of production, including capital) is zero. Conversely, in the real market economy, the producer, complying with supposedly optimal market signals, gives way to the entrepreneur. Entrepreneurs are at the same time the initiators of disruptions with existing equilibrium and promoters of an organization that creates knowledge, helps coordination and enhances the formation of a new equilibrium, whether transient or ephemeral. In this role, entrepreneurs are not simply substituting for the market in response to comparative transaction costs. They are part of a complex network of market and non-market relations whose objective is to ensure the consistency of multiple decisions made. The coordination power is by no means reducible to market games. This entrepreneurial activity is, however, ambivalent in that it can contribute to the creation of wealth as well as the capture of rents that are detrimental to the creation of wealth.

Market creates the instruments that are necessary for its development. It creates its own money[26]. Monetary exchange leads to

25 Arrow, who developed the modern version of the general equilibrium theory, reminds us that, in a situation of uncertainty, the price system experiences failure, that the cult of the market any more than that of the State cannot prevail. Collective action appears to be necessary in so far as it extends the domain of individual rationality, and constitutes the means by which individuals succeed in fully realizing their individual values. It establishes the role and limits of the organization (Arrow 1974).

26 The expression comes from Hicks (1989). It means that the creation of payment instruments (currency) meets exchange requirements in multiple and diversified goods

the establishment of property rights, trade agreements and organized markets, in fact real market institutions. Rights and obligations no longer depend on relationships based on allegiances between particular social groups, but are established with regard to society as a whole. The monetization of exchange thus creates multiple links between buyers and sellers, savers and investors which, by producing information, allow them to arbitrate and to be more or less well coordinated in the moment and over time. The monetary nature of exchange places financial intermediaries, whether banks or financial markets, at the forefront. These intermediaries produce and synthesize diverse information, allowing agents with different time preferences to be matched and in principle making it possible to compare investment projects and to select the most profitable ones. However, a split between financial and real phenomena, leading in particular to the formation of financial bubbles and unsustainable debts, is still possible, distancing the economy from equilibrium.

Public authorities lay down rules that govern goods and services, as well as labor and financial markets. They are also guarantors of social protection, setting up safety nets with the goal of smoothing fluctuations by maintaining a relatively regular demand profile, stabilizing the environment for companies which may thus enlarge their time horizon to make long-term investments and plan the exploration of new markets. Public expenditure, income and debts are managed by public authorities to eventually address the imbalances that arise in the private sector. Their action may or may not succeed in maintaining the economy within a stability corridor. It is, in any case, all the more essential that the economy is becoming more complex.

Regardless of particular cultures and historical legacies, it has been shown that governments' influence increases as economies grow, and as coordination problems become more complex. However, abuses are possible and even attested. They lead to the formation of annuities that are detrimental to productive efficiency, not only because of bad choices because of lack of information that only the market

markets. Thus, since the medieval period there has been successive development of the bill of exchange, commercial banks and finally central banks, with the aim to meet a trust and security requirement.

can provide, but also because the State becomes a predator when captured by lobbies.

Groups of individuals or organizations that hold this coordination power own a share of the social income as remuneration for the services they provide. They participate in the productive activity, although their contribution cannot be measured[27]. Recognizing that they have the eminent and necessary function of coordinating economic activity does not, however, mean that they are exercising it in the best interests of society. They can capture not only a fraction of the overall revenue considered excessive, but can also use the captured revenue to engage in unproductive activities that are an obstacle to growth. They then form what Veblen referred to as a leisure class[28].

2.6. The shortcomings of globalization

Trade globalization is an opportunity to introduce new technologies, explore new markets, promote new forms of industrial organization in order to obtain productivity gains, and stimulate growth and development in different parts of the world. It supposes disruptions and transitions that are managed over time. It is reflected by strong growth in trade and investment flows, but also by the creation of world markets, which are by definition very broad, dominated by very large companies in oligopoly or even monopoly

27 It would be a mistake to classify their activity in the category of unproductive activities, just as it would be a mistake to imagine them disappearing if only because their existence results from the division of labor (Georgescu-Roegen 1971, X4). Indeed, every society is divided between the oppressed and the oppressors, between those who execute and those who command. Power must be exercised that proceeds from the division of labor, extends, encounters limits and transforms. "A scientific study of history would therefore be a study of the actions and reactions that constantly occur between the organization of power and production processes; for while power depends on the material conditions of life, it never stops transforming these conditions themselves" (Weil 1999, p. 304).

28 For Veblen (1899), while the lower classes live in toil and frugality, it is not the same for the financial upper class where diligence and parsimony are thwarted, if not annihilated, by the development of leisure and conspicuous consumption to the detriment of productive work.

situations, having established their positions on huge tangible and intangible investments. It thus promotes ultimately classical forms of organization where the division of labor, likely increasingly sophisticated, is facilitated by the increased size of markets[29].

Potentially, a virtuous circle is possible, involving both emerging and developed countries, which would foster the convergence of their performances and the progressive resolution of trade imbalances. But this mechanism is fragile. Many shortcomings exist, and what they have in common is that they result from changes in the configuration of powers and the way in which they can be exercised. They concern the positioning of companies, financial intermediaries and States.

The concentration of production and industrial export capacity in developed countries was consistent with the choice made by companies of wealthy countries to pay high wages, which had become an essential component of demand. Globalization allows these same companies to extract a large added value share because of their R&D and marketing activities, while relocating, fragmenting and subcontracting manufacturing production in low-wage countries. The creation of added value is disconnected from job creation[30]. Jobs in the declining industries of developed countries, occupied by skilled workers and benefiting from relatively high wages, are destroyed. As a result, there is an increased polarization between highly skilled jobs and unskilled jobs and a widening of inequalities having at least uncertain effects on demand, with companies relinquishing one dimension of their coordination function.

29 This conception of international relations and gains from trade expansion is the complete opposite of Ricardo's theory of comparative costs but in line with Smith's theory of absolute costs, since increasing returns are associated with the occupation of niches, in other words, with monopolistic competition.

30 Baldwin (2011) describes this evolution of the relationship between industrialization of activities and trade development as the "second unbundling". After the decrease in transport costs made the geographical separation of production and consumption feasible and inevitable, digital revolution made the geographical fragmentation of production itself feasible and inevitable by allowing companies to retain the benefit of economies of scale and comparative advantages.

The volatility of capital movements threatens the sustainability of financial commitments and, as a result, the stability of economies, those of Latin American or South-East Asian countries in the 1990s, and then those of the United States and European Union countries after 2007. Financial flows in response to trade deficits and to monetary reforms do not fuel “strong” productive investments. Trade imbalances, far from being resolved, become recurrent. Convergence toward a new equilibrium and intertemporal coordination that would have made this resolution possible disappear as soon as money and finance no longer contribute to such.

Wage costs competition gains momentum and puts public finances at odds. States lose some of their regulation means, thus constrained to favor a national competitiveness objective that could lead them to systematically seek trade surpluses to the detriment of domestic demand. The capacity for funding social protection and infrastructure construction allotted to States declines, even though it is a decisive factor in the stability of final demand and in enhancing the efficiency of private investments. These same States, basing their growth not on exports but on trade surpluses, intend to make others bear the task of supporting aggregate demand, which ends up resting on long-term unsustainable household debt.

In short, the new globalization is a point in time in which the conditions for a real depression are potentially met[31].

A globalized social class has formed that has mastered the key to coordination. It has the capacity to capture a large part of the wealth created, with (as a corollary) a widening of inequalities in each country (whereas they are regressing at the global level simply because of the catch-up by emerging countries such as China), which will be shown below to not always be conducive to strong growth.

31 This is what Krugman observes, in 1979, in the first edition of a book that announces the return not of depression, but of the economic analysis of depression, emphasizing the relationship between financial mechanisms and the formation of demand well before the 2008 crisis and the denouncing, in this case wrongly, of the myopia of economists by the Queen of England (see Krugman 1989).

These shortcomings may result in a narrowing of the time horizon for companies and institutions – banks and markets – that fund them, as well as States. Roundabout production can be shortened, with investments becoming less specific. The search for immediate gains can prevail over the funding of productive investments. Gains potentially contained in market expansion and the introduction of new technologies may be threatened, along with growth, because of the use made of them.

These shortcomings testify not to a general decline of the powers fantasized by some but to their shifting and thus modifying their configuration and conditions of exercise. The entrepreneur and financier take precedence over national governments. Power relations are changed between shareholders and managers, managers and employees, companies and States, and between nations, without it being possible to design a unique future that would constitute a successful globalization.

3

Entrepreneurs at the Crossroads

The idealized representation of globalization as well as a certain business practice brought back the idea of the preeminence and effectiveness of an economic system dominated more by market relations than in the past. There is even an established myth of companies becoming mere collections of exchangeable assets valued by globalized and reputedly efficient financial markets. While, in the immediate postwar period, the Schumpeterian entrepreneur seemed to have been overshadowed by the manager and technostructure, they have now been overshadowed by financial markets.

Obviously, this is not at all the case. Market theory is most often summed up in the analysis of the functioning of price mechanism in different market structures bringing together companies that have been reduced to technical production functions linking factors and products traded on the markets. Yet, now less than ever can companies be considered as small islands of planned coordination in the sea of market relations. They are instead complex organizational arrangements between many stakeholders, whose implementation is the entrepreneur's real function.

Entrepreneurs play an essential role in the growth process. They hold this function of seeking new opportunities that make them introduce new products, new production methods, enter new markets and create new forms of industrial organization. But they can also exercise their skills without actually contributing to the productive activity and even, in some cases, by having a destructive role. Also,

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growth will depend on the allocation of entrepreneurial skills between productive activities involving innovation and unproductive activities including rent seeking, in other words between value creation and diversion[1].

The difficulty, at the analytical level, lies in the interpretation given to market imperfections. Most often, they are regarded as an obstacle to better allocation of resources. The rent seeking with which they are associated is then condemned. There is, however, an ambiguity that is illustrated by the recurrent debate about the most effective market structure for promoting innovation. Monopoly rents can be effective as long as they are used to finance productive investments. The problem equally lies not in the existence of unavoidable market imperfections as a result of incomplete knowledge but in the nature of organizational forms which promote the ability of companies to forecast and plan, in fact to project themselves in the long time. The stronger this ability, the more likely it is that the choice to innovate will prevail over the seeking of rent captured to the detriment of productive activity.

3.1. The entrepreneur out of time

A new business model seems to prevail in minds as well as in business practice. It concerns relations between companies, the definition of their boundaries, their relationship with finance and employment management conditions.

According to the terms of this model, the vertical specialization of companies and the development of open (non-proprietary) technology systems offer opportunities for the creation of new companies (including restructuring by mergers and acquisitions) that take over new niches. These companies benefit from the development of venture capital firms, finance ingenuity and its activism via financial markets.

1 The entrepreneur is a figure that, although frequently mentioned, has never been clearly defined in the economic literature. Baumol recognizes their ambivalence, contrasting their contribution as innovators within the meaning of Schumpeter with their possibly destructive role when they engage in the sabotage of production, expression borrowed from Veblen (see Baumol 2002).

They seek to employ workers with industry-wide rather than in-house experience. The labor market is more *flexible*, staff turnover rate is higher, possibly resulting in wage increases for the most skilled but also a more systematic replacement of older employees by younger people. Shareholder value becomes, in this context, the dominant management criterion in that it justifies the entry and constant participation in *reputedly efficient* financial markets that endorse the success of technological and organizational choices.

The adoption of modular conceptions, a modern form of division of labor, which makes the enhanced *flexibility* of production systems possible, would thus be at the origin of an acceleration of the pace of innovation along with the increase in market capitalization of companies. The proposed explanation provided is simple. Modular architecture would lead to a significantly increased division of productive operations, which have become independent of each other. New fields would be open to investment and competition, fostering innovation and growth[2].

Such an increase in innovation opportunities, though very strong, is not supposed to threaten the stability of the system as a whole. The belief is that there are many newcomers, many losers and only a small number of winners, especially in categories of low cost and high technological potential activity but where most of the risk disappears at the aggregate level. The winner takes the sum of the values initially dispersed between the different experimenters. Just as in perfect competition, exchanges take place at equilibrium prices reflecting the optimal allocation of resources. The selection of innovative projects makes it possible to allocate resources to the best. In either case, competition in the sense of rivalry has reached its end[3].

2 According to this new business model, a current investment project can be assessed taking into account the opportunity to be able to subsequently undertake other projects that would not exist without it. To the net present value is added the value associated with this opportunity: it is called its *option value*. The option will be exercised or not at maturity without any additional cost.

3 The duration of the experiment thus conceived is *de facto* in line with the Walrasian “tatonnement” according to which no exchange takes place out of equilibrium.

This new management view, though it may seem concrete in relation to the disruption resulting from the emergence of information and communication technologies, is essentially timeless. The act of innovation thus considered is unique. The costs of constructing new, though sunk, capacity are past effort and become irrelevant data when the market opens up. They have no influence on decisions guided solely by current incomes.

Uncertainty inherent to innovation is, in a way, eliminated because selection takes place on the basis of immediate result or, more precisely, on result measured over a single period covering the successive phases of the process. It is also because of the supposed redistribution of assets for the benefit of the winner or winners. If the revenues of an innovative enterprise are insufficient to repay debts owed because of costs incurred in the past, this will affect its owners who go bankrupt. But this will not affect the industry as long as the bankruptcy of a company results in the transfer of its assets into other hands. The fluidity of markets and immediacy of adaptations stand as the guarantee.

Entrepreneurs thus conceived play, win or lose following the sanction imposed by the market without the innovation exercise period having any influence whatsoever. The selection, of which the entrepreneur is a victim or comes out a winner, operates only once on the basis of results observed over a single period whose duration (in theory) does not matter. These entrepreneurs, sometimes extolled, are, in reality, the toy of the markets that fully exercise the coordinating function by always selecting the best on the basis of performance measured *de facto* outside, or regardless, of time.

Though these same entrepreneurs benefit concretely from a low degree of proprietorship of basic protocols, they may undertake low entry cost and immediately profitable businesses, where they can pull out quickly. In this case, however, productivity gains are low in most cases, and jobs created are low or unskilled[4].

4 In many cases, the start-up, with the mastery of a software, occupies a market niche and delivers a service whose execution requires no real skill from employees who are

3.2. The entrepreneur, master of time

Innovative entrepreneurs have a completely different dimension. They are not only limited to seizing opportunities and being creative. They must have the ability to forecast, plan and complete their productive activity. Without a mastery of time, they will not invest or at least not invest in the long term and could content themselves with an activity that immediately generates income. Such mastery is inseparable from the conditions in which the selection process operates at the heart of the functioning of market economies.

Entrepreneurs are doubly confronted with time because of the uncertainty concerning technology but also, and above all, the market limits and because of the repetition of innovations, which is a condition for survival, including when the nature of these innovations changes from radical to incremental.

Entrepreneurs who innovate and invest accordingly are confronted with two *periods* that are at the heart of the innovation process: the *investment gestation period* and the *market information acquisition period*[5]. On the one hand, it takes a long time for productive investments to materialize into operational production capacity and these investments cannot, generally, be redeployed without cost. On the other hand, it takes time for market information (i.e. information concerning the behavior of other suppliers as well as customers) to be available especially with regard to new products.

If investments could be redeployed, the incompleteness of the information would not matter. If the information were complete, the irreversibility of investments would have no consequence. The difficulty in innovating arises from the conjunction of these two

most often in precarious status. Among other examples observed, we have activities involving the optimizing of meeting time, optimizing the loading of moving trucks, and optimizing the delivery of drinks.

5 To the time needed to build a production capacity is added the time needed to acquire information. The analysis of the production process is accompanied by an analysis of the decision-making process (see Richardson 1960; Amendola and Gaffard 1988, 1998; Amendola *et al*. 2010).

periods. An entrepreneur cannot rationally decide on an investment that is by nature irreversible without having a minimum of information about what other entrepreneurs will or will not do, whether they are their competitors, suppliers or customers[6].

This difficulty is all the more significant as innovations follow each other over time, so that the sunk costs of tomorrow are the variable costs of today, and the sunk costs of yesterday affect decisions to commit resources today to innovate[7].

The emphasis on *the actual time* of entrepreneurial activity throws new light on the selection process by the market.

Selection, in whatever way it is done, has a direct effect that involves transferring resources, in principle, from the least profitable to the most profitable companies. This same selection also has the indirect effect of affecting entrepreneurs' motivation, but also and especially their ability to *forecast* and *plan*.

If the direct effect proceeds from immediate performance, in other words from the only difference in cost or quasi-rent between companies at all times, not only is there a chance for a monopoly to be established and for competition to disappear, but above all, it should be assumed that the winning or lucky enterprise continues innovating so that there is social gain. Also, the selection should be more effective if it is based on an assessment of the company's performance over a sufficiently long *period of time* for entrepreneurial capacity to really manifest itself. While the enterprise is vulnerable to the consequences of its mistakes, it should not be vulnerable to performance variations due to business cycles or even more so, to

6 The issue here is not that of asymmetry of information, but of incompleteness which characterizes an *imperfect knowledge* economy (see Richardson 1960, 1998).

7 Sunk costs were sometimes presented as a strategic weapon to constitute an entry barrier making the market non-contestable. Thus, the entry barrier had to be reduced for the benefit of consumers. In this perspective, everything happens as if the market game took place once and for all. Things can only be different when these sunk costs correspond to successive innovations and the financial survival of companies involved is systematically at stake (see Baumol 2002).

those inherent in the very nature of the innovation process that requires, as we have seen, that additional costs are incurred before revenues are obtained.

Innovative entrepreneurship relies, *de facto*, on the ability to overcome situations of decline, normally temporary, in apparent labor productivity and hence profitability, because of the time required and the cost to build new production capacities and explore new markets and this in a repetitive way.

Entrepreneurial capacity, far from being assimilated to the sole intuition of the inventor, is thus an organizational capacity[8]. Organization helps to develop the necessary knowledge to better master a constantly changing technological and market environment. It is based on the existence of a pool of resources whose management is not driven by the exclusive optimization of their immediate use. It is invested in the relationships developed between the various stakeholders (managers, shareholders, bankers, employees, customers and suppliers), internal and external relationships, which are the expression of the existence of a knowledge base constituting a specific asset of the company[9]. Contrary to what is usually agreed, the enterprise is not a basic unit attached to a profit maximization objective that involves reserving management to shareholders, but a coalition of interests and at the same time the place for resolution of conflicts between these different interests[10].

8 The concept of entrepreneurial capacity is at the heart of the theory of the firm developed by Marshall (1920). According to Marshall, knowledge acquisition is an organizational issue in a competitive environment considered as a selection process between a plurality of enterprises each indicated by special abilities, sources of evolutionary differentiation (see Metcalfe 1998).

9 This representation of the firm as a knowledge base was developed in particular by Penrose (1959) and Richardson (1960, 1998), following the perspective opened by Marshall (1920).

10 The enterprise has been described as a *political coalition* between a wide range of potential participants. Different coalitions are possible that correspond to different and compatible interests. They each have a certain value which is that of the enterprise with to the environment involved (see March 1962).

3.3. Market connections

If it happened that a large number of small businesses with no market power coexist, which is the hallmark of full competition, because of lack of information on future behavior of its competitors, it would be illogical for any company to invest because if the supply of each company can be limited because of increasing marginal costs, the number of businesses is not limited such that it would not be possible for anyone to make any reliable expectation in terms of market share. These are market "imperfections" – an exercise of market power – which enable companies to forecast and plan because they allow them to access relevant market information. These are *frictions* or *connections* that help the working of the competitive economy[11].

When a company plans to introduce a new product, invest in additional capacity or enter a new market, it must be able to make *reliable expectations* with regard to what will happen to its market environment. This information requirement can explain that companies apply *routines* and do not engage in business activities for which they do not have the prior required skills[12]. But it especially explains the type of competition or market organization that allows it to engage in an irreversible manner. Organization forms that structure competitive markets are real information and knowledge processors.

It is necessary to distinguish between companies that carry out breakthrough innovations (start-ups), and those that are mainly concerned with incremental innovations. However, the former not more than the latter do not fully fall within competitive markets in the sense of conventional theory.

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11 This reversal of perspective was made by Richardson, for whom not only are markets naturally imperfect (knowledge itself being imperfect) but what is usually described as market imperfections constitute means of acquiring the necessary knowledge. This is why he rather refers to them as *market connections* (Richardson 1960).

12 This is why Marshall (1920) points out that it is for economic and biological evolution: *natura non facit saltum*. The industry is assimilated to a biological population. It can steadily grow, although its constituent companies are born, live and die. The substance of progress lies in this form of *continuity*, which is difficult to imagine without any friction and any form of collusion between actors (see Metcalfe 2007).

The start-up, whose development and management mode seem to respond to the popular business model, is not assimilated to the small business of the perfect competition model. It believes it can seize an opportunity that others do not have and benefit from an information advantage by committing itself. It operates as though it were in a monopoly position because of this real or simply assumed advantage. By carrying out a radical innovation, it runs a high risk proportionate to the innovation introduced and the uncertainty associated with it, but for a relatively small amount of investment generally covered by venture capital companies, losses and gains of the latter remain limited[13].

Large companies, which would follow the same path and experience a failure in the exploration of new technologies or markets, could witness a significant fall in their shareholder value involving their entire business, as sometimes happens. This is why there is little incentive for large companies to undertake such exploration. They prefer to leave this activity to small companies, even if it means buying them later, retaining the innovations they have initiated and then committing their capital to the right purpose.

It is only when innovation significantly changes production modes and demand behavior that market size substantially increases, that large investments are needed, large firms take over or the selection of the most efficient businesses lead to industry concentration and productivity gains become considerable. Start-ups that manage to grow and occupy a large market segment, if not a monopoly position, then change in nature and develop incremental innovations to the point that changes in the composition of their human capital could be observed with the departure of staff most concerned with the search for novelties[14].

13 It should not be forgotten, however, that radical innovations owe a lot to government programs and public investment induced, particularly in the United States (see Mazzucato 2013).

14 Large firms account for the largest share of private sector R&D expenditures, mostly dedicated to cumulative improvements in existing products when opportunities arising from recent scientific developments are explored by small firms (see Baumol

These incumbent companies, which realize incremental innovations, know that many of them are considering the same type of investment and intend to find the means of coordinating with each other in order to avoid over investing relative to the demand that will ultimately be addressed in their direction. As we have already pointed out, they will rationally make investment decisions only if they have minimum information on the future behavior of other actors in the innovation process, in fact if together with these actors they are able to *build* the new market through appropriate *connections* that are nothing other than what are usually called market imperfections[15].

The objective for each company is to calibrate and then *secure* its investments, so that future production meets an equivalent demand and the profitability requirement is met. This calibration implies that the plans of the different competing or complementary companies are compatible. The desired compatibility is the result of market strategies that have a dual *competitive* and *cooperative* dimension.

Therefore, forms of organizational arrangements are involved, introducing interdependence between enterprises that can facilitate the coordination of competing investments. In the past, these arrangements took the form of defensive or offensive cartels, often detrimental to customers and damaging to competition when they were not for innovation. The abolition of cartels seems to have changed industrial structures in a way that, while being more favorable to competition, maintained a degree of stability which, by facilitating forecasting and planning, contributed to the effectiveness of the competitive selection process.

The most common arrangements are those that result in the establishment of networks between competing firms, starting with R&D cooperation agreements and other forms of technological

2004). Moreover, the most concentrated industries, following a strong selection, are those with the most intensive innovation (see Autor *et al*. 2017).

15 Indeed, these imperfections should be considered as necessary aspects of knowledge production and dissemination, as natural characteristics of a market economy in line with the approach developed by Schumpeter (see Metcalfe 1998).

consortia[16]. These are all means not only to reduce costs but also and especially to share information on the future configuration of markets, making it credible for each company to engage[17].

Anticompetitive collusion to the detriment of customers' interest or predatory behavior might characterize contractual arrangements. Such practices should be condemned, but they cannot be eliminated *ab initio*. The behavior of companies involved in the agreements will depend on their *time horizon*. Likely, it is certain that the *longer* this horizon, the lesser predatory behaviors would be possible.

Organizational arrangements are also needed along the value chain, between the upstream and downstream. These arrangements, described as *vertical restrictions*, are most often presented as a substitute for vertical integration where the skills possessed by related companies are complementary but not similar. The issue is choosing the organization that can best coordinate these skills. But these same restrictions have another purpose: coordinating complementary investments in order to make them *mutually* credible and *sustainable*. Thus, exclusivity practices in product distribution aim at securing distributors' investments at the same time as those of producers, otherwise there would be no incentives for either one to carry them out. These restrictions, which can be perceived as an anticompetitive action, are in fact what enable companies, upstream as well as downstream, to engage in investment expenditures whose implementation takes *time*. They thus preserve competition through innovation by reducing the risks incurred by each partner company[18].

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16 The role and significance of these alliances has considerably increased in modern economy (see Teece 1992).

17 If it were a question of sharing costs presumed to be too high even though market information is available, it is unclear whether this would be enough to push the award of such agreements. High R&D costs would be justified by high expected profits and companies would have no trouble convincing financiers to follow them.

18 Upstream enterprises reduce their exposure to risk by withdrawing from businesses for which they do not have the required skills while downstream companies reduce theirs by diversifying their customers. Overall risk is reduced, but on condition of coordinating complementary investments, including human capital.

3.4. Competition revisited

Companies, whose activity involves multiple technologies and many components, must coordinate combined networks of capital goods, components and knowledge suppliers. The gap between technologies used and products carried out can give the impression of a move toward a sort of virtual company that would no longer be required to manufacture. It creates the illusion of a disintegration that gives way to market transactions and full competition.

In fact, it demonstrates the need for hybrid forms of organization. Companies rarely fail because of their inability to master a technological field, but because they fail to match their control and coordination systems to the nature of opportunities open to them. The key factors for the success or failure of innovative companies must be sought in the organizational processes linking technologies and products, their productions and markets. Certainly, the productivity of large companies is linked to their R&D expenditure, but particularly to a set of related knowledge or technologies, that is, to the organizational capacity to coordinate this set[19].

Nevertheless, competitive rivalry persists, in particular because the companies concerned are never on the same line, do not introduce the same innovation at the same time, and hybrid forms of organization do not finally have other objectives than to make competition feasible. Competition proceeds here from a *heterogeneity* primarily based on constantly changing differences in *time profiles* of costs and revenues. An industry and a market are composed of heterogeneous companies because of their costs and margins, a heterogeneity that is a source of selection, but a selection that does not necessarily operate one way, the best remaining the best and progressively concentrating supply. This is due to the nature of the innovation process, which takes time and does not make it possible to immediately obtain a competitive advantage.

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19 It has been empirically proven that organizational control commands that of technologies, which therefore means that these technologies do not previously exist (they are not chosen on a laboratory shelf), but are the result of organizational choices (see Pavitt 1998, 2001).

The first company to introduce a new generation of goods within the same industry defined by a set of differentiated goods meeting the same customer needs, rather than benefiting from an immediate advantage, suffers a relative loss of competitiveness because it has to bear, *for some time*, higher costs than its competitors. It witnesses a deterioration in its current competitive position with regard to companies that are not yet innovating, and must either increase its prices, or, more probably, suffer a fall in its margin rate that likely reduce its capacity to resort to external funding. It chooses to innovate because of the competitive advantage it *subsequently* expects once the product is sold on the market without being sure of success, provided it equips itself with the adapted organizational means[20].

This competitive rivalry may persist between a more or less large number of companies in the same market, not because cost and demand conditions do not change as is the case in monopolistic competition models, but on the contrary, because these same conditions change and give rise to performance differences between different enterprises *over time*.

Under these conditions, sunk costs do not necessarily constitute an entry barrier, being a burden for all companies facing the same problems at successive times in their lifecycle. They do not offer definitive competitive advantages and do not confer monopoly power. If these costs were entry barriers, preventing any real rivalry, current profits would be high. But this is not necessarily the case in innovation-intensive industries.

In this context, price strategies contribute to a search for *time control* and *sustainability*. They consist of maintaining a certain viscosity of these prices. There are many reasons for this. Relative price stability helps to identify the more or less temporary nature of market imbalances to better forecast demand and better plan production. Significant price changes are likely to create greater uncertainty that affect companies' assets value and their funding

20 This type of analysis presupposes that production in a broad sense takes time and is divided into a construction period and capacity utilization period (see Richardson 1998; Amendola and Gaffard 2006).

ability. These changes, when they go in the wrong direction and are excessive, can contribute to exacerbating the disruptions affecting the productive capacity structure. They then cause the alternation of excessive destruction of capacity and bottlenecks, inevitably inducing erratic fluctuations of the product. Excessive price volatility forces the company to react to events of the moment and as a result, it causes the company to break with investment plans undertaken in the past. The company shortens its time horizon, and such shortening in turn increases this volatility.

In short, competition is preserved, not because of price flexibility, but because of market connections that create constraints to deal with knowledge imperfection by ensuring *control of the time* required to produce. This obviously does not mean that they cannot or should not seek for cost and price reductions in order to increase their market shares. This means that they must prefer a *long-term price competition* to *short-term price competition*. The nature of the company is questioned. The company can neither be reduced to a production function nor to capital ownership. It is the coalition already mentioned between several actors, the stakeholders of the implemented strategy.

One of the essential dimensions of the company in this perspective is the employment contract that replaces the lease agreement and aims at encouraging a progressive enhancement of skills driven by the need for companies to constantly renew their businesses and products[21].

3.5. Between value creation and diversion

Entrepreneurial activities are productive when they allow innovation in sequence, systematic renewal of businesses and products and consequently, the stimulation of productivity and growth. These activities are, on the contrary, unproductive when they are more

21 The employment contract opposed to the lease agreement is presented as the result of the endogenous nature of innovation in the industrial world and emergence of the modern enterprise when the tasks performed can no longer be identified in advance and left to the individual discretion of workers themselves (see Segrestin and Hatchuel 2012, pp. 34–39).

concerned with value capturing than value creation. The latter are all the more attractive as the rents they help in obtaining in the *very short term* are high because of the prevailing institutional forms. The attraction of the most talented people to finance or law professions can in particular become a cause of low productivity gains[22].

Certainly, the distinction between productive and unproductive activities is more complex than what this first observation suggests. Traders, for example, can make the economy more efficient if they allow securities prices to be closer to fundamental values reflecting technologies and preferences, and favor a reduction in the cost of capital. In fact, no activity is inherently productive or unproductive.

The productive nature of an entrepreneurial activity is essentially controlled by *the length of time* within which it takes place. While productivity gains are the result of the industrial organization of activities and innovations that this form of organization generates, it becomes obvious that obtaining them requires entrepreneurs to be able to forecast in a relatively distant future. This means having the ability to deal with the consequences of the combined effect of uncertainty regarding the future configuration of markets and irreversibility of investment decisions, and to also deal with the inevitable separation between the time profile of cost and that of income. Investment gestation and information acquisition periods are not, in fact, given data. We must consider how entrepreneurs react to the signals they receive from their technological environment and market. If they choose or are required to quickly and immediately adjust, they will obviously prioritize short-term investments and readily available information. If they can, on the contrary, make slow and gradual adjustments, they may make longer-term commitments and wait longer for acquiring market information by being able to develop such information. Thus, many start-ups occupy a niche, do not really innovate, and benefit from easily accessible technological protocols, an immediate business opportunity that does not require substantial

22 Tensions involved in the allocation of talents between two distinct sectors, depending on whether the activity is rent or entrepreneurship seeking, affect growth, revealing the importance of differences in the nature of contracts establishing relative remunerations (see Murphy *et al*. 1991).

investment, neither in physical nor human capital. Their activity may be likened to a diversion of value if it does not generate new investments.

This sheds new light on the role of monopoly or oligopoly in the innovation process. Either profits are reinvested and promote long-term growth, or they are diverted from the productive activity, while the arbitration done cannot be reduced to the market structure[23]. Competition conditions drive companies to a quick and immediate reshaping of their boundaries in the light of the comparative rates of return of the various physical assets assimilated to financial assets that compose them, without having to reflect on the long-term prospects. Or they preserve the possibility for these companies to *gradually* remove *mobility barriers* and penetrate new businesses and markets by taking advantage of the accumulated human capital, in short to make *long-term* commitments[24]. The issue is whether the company must comply with immediate financial optimization standards to be properly valued at the risk of ultimately creating little value, or if it must systematically position itself such as to avoid vagaries related to the short term. With regard to this debate, the problem is not so much the share value *per se* as that of the conditions for determining such share value, in other words the criteria for assessing the real value of the company, which reflect the more or less long horizon set by decision makers, whether they be accounting or auditing criteria[25]. The ability of projecting into the future is a quality that lies not with the company as an indistinct and ultimately undefined entity, but with the nature of the relationships that are established between the various stakeholders including managers, employees, shareholders, bankers,

23 Schumpeter (1941) warns against the ease of having a static view of the monopoly or oligopoly position reduced to a situation of higher prices and lower production, while oligopolistic competition promotes innovation and, in the end, lower costs and prices and output growth.

24 Mobility is exercised in branches where companies already have the required technical and organizational skills, in other words close to professions that are already practiced (see Caves and Porter 1977).

25 “Modern” management agreements consist, in accordance with the “modern” theory of the firm, of accounting and auditing rules that tend to favor immediate results (see Favereau 2016).

customers, suppliers and partners of technological consortia. In other words, only those who commit themselves are actually stakeholders[26].

3.6. Globalized entrepreneurship

Exploring new markets in a globalized economy and competition among countries with different social and environmental standards require companies to seek not only to export, but also to fragment their production internationally. Companies serve foreign markets by creating local subsidiaries. Companies relocate segments of their value chains to foreign countries. Some of them resort to local independent companies, and others create subsidiaries. Foreign subsidiaries sell their products in host countries and import components from parent companies. But they also export goods to origin countries as well as to third markets and to affiliated and unaffiliated parties.

When the initial costs of fragmentation and internationalization of production are part of an innovation strategy, they generally exceed those of a production strategy for the domestic market or for export. They will be compensated and net profits will increase only at the end of a *period of time* which remains, fundamentally, an investment gestation and market information acquisition period. The risk incurred is even higher when markets are more heterogeneous, when there is greater diversity of cultures and industrial practices and finally, when longer periods required for implementation. The coordination and development strategy is disrupted.

When production was technically and geographically concentrated, coordination was centralized within an integrated enterprise and the focus was on achieving economies of scale or scope associated with this production configuration, the *visible hand* of integrated

26 Segrestin and Hatchuel (2012) criticize the stakeholders theory by emphasizing that stakeholders cannot be put on the same level and therefore cannot all be entitled to designate officials. However, the fact remains that what makes the company a coalition of interests is the joint commitment of stakeholders, including customers and suppliers.

organization was substituted for the *invisible hand* of the markets. With the technical and geographical dispersion of this production due to technical upheavals and the opening of markets, technological and managerial capacities are increasingly dispersed contrary to what happened in the 19th and 20th Centuries. The required strategic alliances are becoming much more numerous and their coordination more complex and, where relevant, more expensive to implement.

The ability to create and sustain these alliances continues to depend on the possibility of companies to make long-term investments and of the entire economy to grow. Failing this, businesses could be encouraged to occupy immediately profitable niches and capture rents rather than accumulate productive capital. This will be the case for start-ups seeking *immediate* access to a large global market through low prices by exploiting technological resources developed by others or those that are unsophisticated, without taking any technological risk. This will be the case for established companies seeking to *immediately* improve their performance through the outsourcing of low-skilled and low-wage service activities within developed countries and the relocation of industrial activities in emerging countries[27].

The entrepreneurial question does not change in nature, it changes in dimension and level of complexity. The universe of an "old" industrial world crippled by limitations and imperfections does cede to a "new" world that would be made of a multitude of start-ups occupying markets freed from all obstacles. The arbitration between long-term value-creating innovation and short-term rent seeking to the benefit of a small number remains relevant. But it is posed in different terms, with regard to the geographical fragmentation that clashes with the industrial fragmentation and in the absence of institutional regulations that were imposed within the national borders. In many ways, this fragmentation proceeds from competition between legal systems, tax, social and environmental standards. It reveals, by itself,

27 Empirical studies show that this results in a close correlation between the rise of so-called superstar companies and falling share of wages in added value (see Autor *et al*. 2017).

behaviors more oriented toward rent seeking and value diversion than toward innovation and value creation.

This orientation is enhanced because of the break within the political coalition constituted by the company. The development of subsidiaries, subcontracting and outsourcing dilutes responsibilities along with the reciprocal commitments of the various stakeholders at the risk of making the short term prevail[28]. The disconnection between corporate and State interests weakens the employee's position. Their demand is no longer perceived as essential by executive managers, as was the case in the years following the Second World War. Employment contracts can be affected in the sense of greater instability, the corollary of which is a lesser commitment by employees, who are less willing to accumulate skills to the detriment of the company's ability to innovate. The choice of the type of entrepreneurial activity remains questionable under different economic and geographical conditions, that is, as already underscored, the nature of relations between the company's stakeholders, capital owners, employees, suppliers and customers.

28 The economic issue clashes here with the legal as well as financial questions. This will be discussed in Chapter 4. "Facilitated by digital technologies, which make the subcontractor transparent in the eyes of the contractor, such organization enables the latter to maintain its technical and economic control power over a production segment, without having to assume the legal responsibility... Although this network organization is justified by the desire to refocus each company on its core business, it particularly responds to the expectations of financial markets that wish to compare and stimulate the financial profitability of different profit units that make up a production chain" (Supiot 2015, p. 222).

4

The Time of Finance

Two approaches clash traditionally when it comes to finance. On the one hand, we have those who believe in the neutrality of money and finance with regard to the working of the economy determined essentially by preferences and technologie. On the other hand, there are those who see finance as the predator of this economy and imagine what could be a real economy ultimately freed from any influence of finance. They both want to ignore the close interdependence between real and financial phenomena at the heart of Keynes' analysis[1].

Financial markets have emerged as vectors of the new globalized and digitized economy. Their presumed efficiency did not resist the bursting of financial and real estate bubbles reflecting the excesses committed. It would be, nevertheless, reductive to point to them as the sole and ideal culprit.

Accusations leveled at finance are certainly all the more credible as the latter escaped all control. It has taken precedence over industry. Financial choices have outweighed real choices and the diversion of value of its creation. The truth that exists in this statement should not

1 The distinctive feature of Keynes' theory is to break with the dichotomy between a real and monetary sector to posit that money is not neutral and money matters in the short and long term, far from the reductive interpretations of this theory that solely emphasize on the role of public expenditure (see Keynes 1936; Leijonhufvud 1981).

Disorder and Public Concern Around Globalization,
First Edition. Mario Amendola and Jean-Luc Gaffard.

obscure the fact that there is no industrial development without the development of financial systems, whether this involves channeling savings toward investment by making the time preferences of capital owners compatible with those of their users or guiding and controlling the decisions of companies in view of better using available resources.

Undoubtedly, the liberalization of international capital movements, following the abandonment of the Bretton Woods' agreements that founded a new international economic and financial order after the Second World War, was partly responsible for the return of financial instability in the 1980s. But it was the inevitable consequence of the US position in the international monetary system, the accumulation of dollars by oil producing countries, and also the opening of trade as well as the return to growth in industrial countries. It is also worth mentioning that there was an opportunity to use available capital to fuel productive investments in developing countries where rates of return were potentially higher or in developed countries faced with the need to carry out industrial restructuring. This in accordance with the teachings of the basic economic theory. But was it necessary to abandon any prospect of control? The answer can only be negative. What is at stake is not the capital movements themselves, but the nature of this capital depending whether it is invested in productive or non-productive sectors.

The financing method – the nature of the financial intermediary and finance contract – determines the choice of allocation of saving and contributes to the sharing between an innovation activity and rent seeking. Just as there are two types of entrepreneurs, there are also two types of financial intermediaries depending on their relationship with time. Some shareholders or bankers engage in the long term with the companies they finance, while others speculate in the short term. Also, the issue is not that of the usefulness of finance in itself, but that of its regulation, organization and influence on industrial choices. Yet, ongoing global development is fostering its decommitment from other corporate stakeholders to the detriment of long-term investments.

4.1. Idealized financial markets

A trend emerged in the 1980s and 1990s, when a new business model surfaced on a global scale, which required companies to refer to stock market shares value as a good management criterion, while shareholding structure changed. The restoration of the power of financial markets affected listed companies as well as those depending on them contractually or via market relations.

The primacy granted to stock market value makes shareholders to play a prominent role in the definition of corporate strategies. The usual justification for this role is based on three proposals. Shareholders, unlike employees or subcontractors, would not have complete contracts. The residual surplus would naturally belong to them. It is, therefore, the shareholders, as residual creditors, who would bear the risks posed by specific investments involving high exit costs. It should, therefore, be up to them to carry the responsibility for guiding the corporate strategy.

In this perspective, financial markets are supposed to be more efficient than managers who have become independent of shareholders, but complacent with employees, when it comes to shifting productive resources from declining to emerging activities or supporting entirely new activities. They help both to strengthen the ability of companies to adapt to changes that occur in their technological and market environment and to make the creative destruction process effective.

In particular, forcing old companies to strictly adhere to the principle of maximization of share value is supposed to reduce the influence of employees wanting to safeguard their jobs. This influence leads to costly adaptation periods, inappropriate investments and ultimately vain efforts to save condemned jobs in any case. This observation is based on the assumption that the main obstacle to restructuring lies in the degree of investment specificity, implying a decrease in their value outside initial arrangements and especially in employment relationships, and meaning that the reinforcement of employment protection rules can only increase this degree of specificity and result in technological sclerosis, an increase in structural unemployment rates, or even an undervaluation of work. It is then financial markets that have to impose conditions on companies in order to escape constraints due to rigidities in the labor market.

At the same time, while shareholding was divided, traditionally, between a stable family shareholding and a multitude of small shareholders deprived of real power of control, the main investors became investment funds, in particular, pension funds. These funds did not use the sums at their disposal to support particular industrial projects, but to better invest the savings they drained. Their creed was diversification. They manage equity portfolios. Thus, from their point of view, the diversification carried out by the corporation to reduce the risks attributable to fluctuations in any of its multiple activities became unnecessary. Integration became worthless in their view and disintegration was favored. The reference shareholder, highly involved in a company, shared the risks and paid attention to its long-term strategy. This shareholder could only be sensitive to a configuration of entrepreneurial capacity capable of reducing risk exposure, and thus a certain diversification of activity. The investment fund did not have the same concern for corporate monitoring by diversifying its portfolio and particularly organizing the risk coverage. The reshaping of company boundaries then became dependent on financial markets requirements. It led to a refocusing on what is known as the core business or skills designed as a source of increase in financial value intended to reflect the intrinsic value.

Management by financial markets is a break with the "traditional" management of large corporations established at the turn of the 19th and 20th Century. This break is associated with the recent evolution of industrial organization architecture, particularly in activities related to information and communication technologies, but also in the field of goods subject to complex assemblies such as automobile or electronic. Vertically integrated large corporations concede to the emergence and development of large modular clusters of businesses and markets. The modules are network nodes linking multiple customers and suppliers, revealing numerous complementary links and whose scope evolves with time and opportunities. What we traditionally call division of labor continues. It functions less within the same company than between many companies with complementary activities connected by market relations and financial links.

Financial markets are then presented as the most appropriate financing method to enhance these projects falling within a modular architecture. They would have the ability to take into consideration option values associated with each specific project. The reason for the attribution of this role to financial markets lies in the dispersion of industrial modules and that of information concerning them, which make traditional banking strategies less effective. Management by share value encourages managers to implement these modular architectures and create options that go with it. It encourages managers to project into the future without any fear that their mistakes could lead, globally, to a waste of productive resources.

The flexibility of funding mechanisms goes hand in hand with the flexibility or malleability of industrial organization and the multiplication of modules for the growth of the entire economy. The related funding method is assumed to be neutral where it only makes it possible to bring out real advantages emanating from new technological opportunities.

The prevailing idea is that when information is widely dispersed and opinions differ on what might be the results of particularly risky industrial choices, financial markets would have the advantage of being able to prioritize the acquisition, aggregation and distribution of information. It is only when information is less dispersed because industrial choices are less risky owing to the fact that activities have matured and banks would have the advantage of possessing the means to control and monitor companies. Therefore, the importance attached to innovation leads to the conclusion that there would be an optimal form of funding system, in this case that built on market and "transaction-banks" control rather than on "relationship-banks" control.

The presumed advantages of financial markets leads us to consider the company as a collection of property rights comparable to a set of financial instruments including, on the one hand, rights and claims and, on the other hand, existing assets and growth options. The principle is simple. All real assets are likely to be bought or sold and this transaction will have an impact on the share value. By analogy with financial assets, it is possible to sell or buy comparable assets at any time or to reinvest the funds in other opportunities. Option is therefore part of choice and is an important factor of flexibility. The overall risk of a non-financial asset is analyzed in the same way as that of a financial asset. The value created results from the net change in the portfolio of all assets and liabilities valued at their market value. We then drive toward a situation where the relevant balance sheet is a balance sheet in market value, which is supposed to reflect the true corporate value in the long term, provided that the distinction between short and long terms still has meaning in this context. Maximizing corporate value is like maximizing shareholders' wealth. The company's boundaries are determined by an external agent that is the financial markets.

If we follow this argument, the described economy remains, implicitly, that of general market equilibrium. The company has no real existence. Finance is neutral in the sense that its role is limited to revealing the fundamentals of the economy, which are technologies and preferences. Financial markets play the role that Walras attributed to the auctioneer by sending price signals to industrial actors, in this case asset prices assumed to be optimal prices revealing the intrinsic values of industrial projects.

4.2. A contrasted reality

Reality turned out to be more contrasted and ultimately less idyllic. It is appropriate, first and foremost, to take into account the irreversibility of investment decisions in a context where information is incomplete. If assets were easily tradable and investments reversible, if there existed a second-hand market for physical assets and if human resources could be redeployed without cost, an *ex post* selection by financial markets would in principle not involve any real damage. There would be many winners and losers, but the physical and human resources would be redistributed to the benefit of winners. Market efficiency, if it were to exist, would be due to the re-deployable nature of assets. If, on the contrary, investments are specific and irreversible, failures are reflected in the destruction of assets and impossibility of recovering the expenses incurred. Thence, as will be seen below, the importance of an *ex ante* control and, jointly, of the commitment of investors (capital owners) over a sufficiently long period of time and their acceptance that innovative companies can temporarily undergo losses inherent in their strategy.

In fact, regarding radical innovations that effectively correspond to incomplete and scattered information, the funding that prevails is not market financing but financing by venture capital companies. The ability of investors to immediately stop projects when they fail is just as important as the tolerance expressed with regard to temporarily negative results. It is at this level that venture capital companies play their role. A quick glance could suggest that the venture capital mechanism falls within *ex post* selection when investors count on the success of one in 10 or 20 projects and fall into the category of transaction bank. A closer look reveals another reality. Investors support start-ups by providing technical advice alongside funding and ensuring control of their governance mode: the relationship is that of proximity and relative long term.

It is only beyond this point that stock market listing is carried out and financial markets play their role in companies' strategic choice. Yet, it turns out that this listing has substantial effects on companies' innovation activity. It changes the nature of the projects pursued, henceforth less innovative, by resorting to a narrower range of technologies. Such listing leads to the prioritizing of the acquisition of technologies rather than their internal development. It modifies the skills structure to the detriment of innovators and benefit of financiers. In other words, companies whose capital is distributed across the public would be more inclined to implement conventional projects that promote incremental innovations, provided that the dominating influence of financial directors does not result in seeking immediate gains.

During an industry's emergence phases, companies must be able to access equity particularly through venture capital firms. When these companies reach maturity, carry out incremental innovations or become part of merger and acquisition processes, a public ownership structure may become appropriate. In fact, contrary to the agreed discourse, financial markets prioritize innovations that are based on the renewal of range or improvement of productivity and not breakthrough innovations by relying on the usual ratios of return on investment[2].

The increased modularity of production reveals a multiplication of opportunities, but it does not necessarily increase the system's stability. On the contrary, it may be a source of instability, as evidenced by the bursting of the technology stocks bubble in the early 2000s. The implicit idea according to which investments and market structures would be determined, jointly, as a result of mutually consistent behaviors complying with rational expectations, does not withstand the observation. Financial markets are not just distributing and pooling risks.

The fundamental reason for the failure indicated by the bursting of the Internet bubble in 2001 is that the desired flexibility was impeded by the irreversibility of the decisions made. The modern theory of investment certainly provides irreversibility. This is done by attaching value to what limits it. The calculation of a real option value is based on the assumption that future investment is flexible: it can be foregone or changed in due course *without any cost*. Immediate investment conditions future investment without constraining it. Moreover, the exercise of options is not supposed to change investors' beliefs since the probabilities of success or failure turn out to be exact. However, recognizing that successive investments are complementary to each other leads to two observations. Since not all assets are re-deployable, it is impossible to change direction without paying a price for restructurings, that is without losing all or part of funds committed in the past. Any break in intertemporal complementarity creates

2 Christensen and Van Bever (2014) talk in this regard of the dilemma of the capitalist who, by relying on profitability measures such as the ratio of the return on net assets or on invested capital, diverts from creative market innovations, which can take between 5 and 10 years to bear fruit, while at the same time outsourcing intermediate activities that help to increase the relevant ratios by decreasing the denominator.

difficulties that can lead to changes in corporate and their shareholders beliefs and a re-valuation of assets that can be considered as part of the uncertainty surrounding the fundamentals[3].

In these conditions, not only can expectations on changing fundamental values be wrong, but most importantly expectations or beliefs about the behavior of other actors in the goods markets may also be wrong. The coordination of investments is not simply resolved *ex ante*, within the framework of strategic interactions between enterprises taking place in a context of consistency of beliefs and individual expectations. This coordination is carried out (or not) along the way, that is, through interactions proceeding from *trial and error* in the context of market processes that are learning processes. The modularity of productive operations, when accompanied by an extension of market relations, fosters rather than reduces the need for *in situ* coordination, that is, the need for adaptability. It becomes important to identify the institutions that support the formation of consistent beliefs. The bursting of the technology stocks bubble in the early 2000s reveals that existing institutions did not always guarantee this consistency. The inconsistency of beliefs leads to real imbalances and excess investment, which affect stock market values and lead to a selection of companies, following processes governed by mimetic behaviors, which do not necessarily result in the selection of the most efficient companies.

4.3. Capital and commitment

While the development of mimetic behavior is crucial for the formation of bubbles and the occurrence of financial crises, the essential aspect lies elsewhere: in the configuration of the governance

3 “It is uncontroversial to point out that that Keynes thought that asset markets are imperfect assessors of values. The short term nature of professional speculation and psychological considerations were important for his understanding of the problem. But the underlying reason for the imperfection of market was the inherent imperfection or uncertainty of knowledge with which we must all cope” (Frydman and Goldberg 2011, p. 161).

that reveals the level of commitment of capital owners or, rather, the degree of stability of capital ownership[4].

Economic analysis usually focuses on incentives and the associated control. It requires the elimination of any rigidity that would affect the freedom of choice, enhancement of competition understood as a state of the market freed from any real power and ensuring liquidity assimilated to the marketability of assets. This analysis does not recognize the role of commitment; in other words, it ignores the role of social interactions, reducing institutions to mechanisms solely designed to reduce transaction costs. Yet, institutions also have the function of promoting and preserving the commitment of actors of the entrepreneurial process, starting with that of capital owners. This commitment is neither vulnerable to the onset of difficult times, nor to the temptations of abrupt change in direction. Its content includes the committed capital amount and the duration of their commitment. A significant committed amount that can be immediately withdrawn is of little value, as well as little capital committed for a long period.

The specificity of the financial commitment as defined is that it supports the commitment of other corporate stakeholders, that is suppliers, customers and employees. These will make the necessary investments with the guarantee offered to them by capital owners. What may seem paradoxical is that commitment limits subsequent choices, reduces liquidity in the strict sense of marketability of assets and restricts the range of options that could be chosen in due course by a particular actor. Without these limits or restrictions, there would be no commitment, and no possibility to respond to irreversibility and uncertainty that characterize innovative investments. They guarantee the company’s ability to forecast and plan, that is, to build their market and open up new options.

Market financing enables, in principle, a long-term commitment, since the issuing of subscribed shares constitutes a permanent capital. Certainly, the existence of a dispersed shareholding and the creation of large corporations have resulted in the separation between

4 What follows is largely inspired by the analysis developed by Mayer (2013).

ownership and control giving rise to possible inefficiencies. Since control has been transferred from owners/shareholders to executive managers, the latter are likely to act in their own interest rather than in that of shareholders. The argument most often put forward is that these managers are more interested in the company's turnover, its size and number of jobs, which are all signs of power, than in the profitability of investments. Focusing on control makes it easy to overlook the fact that the purpose of the delegation of authority by dispersed shareholders, who are never formally committed to executive managers, is to guarantee the commitment of capital to other corporate actors including suppliers, customers, employees and creditors as well.

It is, therefore, important to distinguish "outside" from "inside"[5] shareholders. The former are only interested in the dividends to be collected and in share prices, while the latter are more concerned with the company's future and the dividends that they hope to receive. Outside shareholders try to perceive dividends as high as possible and as quickly as possible, while inside shareholders are further interested in retaining the company's profits. Thus, the degree of commitment depends on the shareholding structure. Dispersed individual shareholding or concentration of capital ownership in the hands of a family is a guarantee of stability of commitment. The holding of large volumes of shares by activist investment funds may, on the contrary, be a factor of asset price volatility making commitment capacity unstable[6].

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5 This terminology is borrowed from Hicks (1989) for whom "the market creates its own currency", meaning that monetary and financial instruments are designed in response to market conditions and feedback on them.

6 "The fact that corporate law favors any one of these two forms of shareholding obviously has a much greater impact on employment than the more or less protective nature of the right of dismissal. Drawing new limits to shareholders' powers, which requires them to consider the sustainability of companies to which they provide capital, would be restoring the ability to undertake the primary role that it would never had lose in economics" (Supiot 2010, p. 112).

4.4. Corporate value

Observing the separation between ownership and control from the perspective of agency problems (resulting from information asymmetry between shareholders and managers) in view of reducing them overlooks the fact that owning shares is not equivalent to owning productive assets, that the listed company is an entity separate from its owners and that the shareholder only has rights on the company that are, deliberately, binding. The justification for this legal construct is that it creates new opportunities by allowing capital owners to *commit* alongside other stakeholders and compete with them in establishing the corporate value.

Contrary to the agreed analysis, neither employees, customers nor suppliers benefit from complete contracts. They all share the risk and are also involved in the outcome. Neither employees, customers nor suppliers may interrupt their relationship with the company without cost for the simple reason that they have accumulated human or physical capital, most often specific and thus, hardly re-deployable. Therefore, if they are excluded from the sharing of the income, for lack of control rights, these corporate stakeholders may refuse to make specific investments to the detriment of the corporate value. Thus, the company is defined, not as a node of contracts isolated from each other with particular properties, but as a network of contracts closely interdependent on each other, whose nature determines the ability of different partners to carry out specific investments that commit them in the *long term*. The corporate value ultimately depends on credibility of commitments. Therefore, instead of considering that the rigidities of the labor market affect strategic choices resulting in technological sclerosis, it appears that it is the refusal of shareholders to commit in the long term that prevents other stakeholders from carrying out long-term investments and in particular, put employees in a position of inability to accumulate human capital[7].

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7 According to this analysis, the payment of very high wages to managers, including the granting of stock options, is a manifestation of lack of confidence of the latter in the future of the company, their refusal to accept a postponement of their earnings over time, and their desire to take immediate advantage of their position (see Mayer

The increased modularity of productive operations is not associated with an extension of pure market relations. It is part of the creation of corporate networks whose proper functioning requires the establishment of *long-term* relationships between their members. These relationships require the existence of a financial system that ensures stability. Reshaping of the industry structure through mergers and acquisitions is thus more likely to meet industrial objectives than is reacting to a requirement for satisfying activist shareholders[8].

The need for companies to be able to drain financial means must not obscure the issue of their ability to plan and innovate. While their strategic value is not unrelated to their financial value, it cannot simply be reduced to such. The paradox lies in the fact that the attention given to financial value relates to an economic calculation solely oriented toward a short-term planned future (forward looking), which gives insufficient place to time dependence phenomena (path dependency), that is, the stage-by-stage articulation of constraints and decisions, which guarantees the viability of the path followed[9].

The ability to innovate proceeds from real investments that ensure the learning of technical and market conditions, as well as the consistency of choices made. Financial resources that are committed to cover expenses must be available at the right time and required amounts. It is in that light that the concept of liquidity should be understood, that is holding reserve financial assets that includes a sustained ability to borrow. These are means that validate

2013, p. 151). It would no longer be an issue of attracting the best in a highly competitive market, but of recognizing the fluidity of their jobs, denying any value to their commitment.

8 What we are discussing here is the monetary nature of the market economy as seen by Adam Smith, who, after showing how the division of labor was limited by market extension, explained the origin and use of money (see Laidler 2010).

9 The question arises from the first phase of the innovation process. When access to basic protocols becomes easier because of the conditions for the propagation of digital technologies, venture capital firms are more likely to focus on immediate results to the detriment of the implementation of more complex technologies, requiring a longer period before benefits are obtained (see Ewens *et al*. 2018).

commitments made by the various stakeholders involved in the business and make up the corporate value[10].

Moreover, it is impossible to be free from the past nor project into the future by imagining that the future will meet the expectations required of it. Finance is a *bridge to the future* and not *an induction from the future*. It should not be organized to simply select on the basis of a current rate of return that would apply to all, at any time, and be a long-term indicator. It should enable companies to secure their long-term investments by being tolerant with regard to temporarily negative outcomes and by helping coordination among various actors.

4.5. Influence of the funding structure

The neutrality of the funding structure put forward by Modigliani and Miller is called into question, not because of the existence of frictions such as taxes or lack of information for investors on the corporate current or future outcomes, but because the company is not reducible to its shareholders[11].

Corporate value depends on its funding structure insofar as it affects the commitment of capital owners and hence, the commitment of other stakeholders.

Thus, the distribution of dividends cannot be regarded as equivalent to profit retention. The higher the dividends paid, the more frequent the use of share issues to fund the business, and the more management control is transferred to shareholders. The credibility of

10 Here, liquidity is not a matter of single choice between substitutable assets, but of a sequence of successive choices designed to preserve the widest possible range of future choices (see Hicks 1974).

11 Modigliani and Miller's proposal, according to which the corporate value is independent of its funding structure, is based on the identification of the company with capital owners (with its shareholders). It is part of general market equilibrium within which there are only individuals (consumers who are employees and shareholders) and no institutions starting with the company itself (see Mayer 2013).

shareholders' commitment with regard to other corporate stakeholders is crucial. It differs depending on whether the shareholding is dispersed, mainly in the hands of an owning family or held by activist investment funds. This shareholders' credibility is even stronger if there is a dispersed shareholding, or conversely, a stable block of shareholders even if, in the second situation, it is still possible that the control exercised leads to potential fraudulent manipulations to the detriment of minority shareholders. It is affected by companies' practice of buying back their own shares at the expense of investment, which increases the value of these shares at the same time as it increases the amount of dividends paid per share, thus adding more weight to shareholders and therefore to their degree of commitment.

Admittedly, paying dividends rather than retaining profits and repurchasing company shares rather than investing the relevant funds do not, in principle, imply turning away from productive investment since higher dividend flows should allow companies to drain more funds into markets. The problem is that the shareholding structure dominated by activist funds encourages companies to do rapid restructuring of which immediate outcomes are expected, most often, to the detriment of investments requiring *long* roundabout methods of production generating temporarily higher costs and therefore, *temporarily* lower performance.

Under such conditions, traditional bank financing has the advantage of allowing publicly listed companies to grow without the need to disperse ownership, without managers having to submit to investment funds activism or fear hostile takeovers. It preserves, in principle, the interests of all stakeholders and contributes to a good equilibrium between commitment and control.

The existence of stable shareholders' cores, payment of dividends and allocation of voting rights, dependent on share-holding time (thus called loyalty shares), and the predominance of relationship-banks appear then as factors that ensure a good equilibrium between commitment and control, thereby fostering innovation and growth.

National realities are contrasted, although without the possibility of defining pure varieties. In the United Kingdom, weak relations with banks and lack of defense against hostile takeovers lead to the prioritizing of companies' financial performance at the expense of the lasting commitment of shareholders or managers. This could explain some of the characteristics of the UK economy, which is divided between a highly developed financial services sector and a declining manufacturing industry, whose flagships are often in the hands of foreign firms that have their own financial constraints. In the United States, the presence of local banks, the existence of an effective defense against hostile takeovers and the weight of private equity have been able, in the recent past, to foster the commitment of capital owners and implementation of radical and incremental innovations that both fall within the long term. Moreover, it turns out that shareholding in industries depending on financial markets that face high and recurrent R&D expenditure is generally characterized by high concentration and stability. In France as in Italy, banking reforms and the powerful rise of financial markets are partly responsible for the instability in capital ownership of large companies. The resulting consequence, for some of them, is their dismantling[12]. In Germany, the stability of capital ownership structure and stable relations with banks (mainly local savings banks) are key factors in the competitiveness of industrial enterprises and their long-term commitment.

4.6. The risk of financial decommitment

The capital asset pricing model demonstrates that individuals have the ability to control what Keynes referred to as "the dark forces of time and ignorance" by eliminating non-assessable risk through portfolio diversification and moving assessable risk to those who are better equipped to deal with such risk. The idea that we have about the future would determine the present. Expectations on future earnings would determine the current value of capital, which would itself determine future revenues.

12 Two emblematic cases of dismantling associated with strategies favoring financial markets opinion in France include that of Alcatel-Alstom and Péchiney.

In this world, the efficiency of financial markets would erase time. Their powerful rise would simply indicate an increased intensity of innovation activity in the industrial area involving greater risk-taking and highly dispersed information, but also changes in the nature of investments that have become more flexible. Actors in these markets would have a capacity for anticipation that would allow them to instantly discover the fundamentals. Any real imbalance would be eliminated as well as any cumulative mechanism that would cause a breaking-up of markets and the economy as a whole.

The reality is very different. The liberalization of capital markets on a global scale, ending of the legal separation between commercial and investment banks, as well as the development of universal banks, resulted in the confiscation of corporate governance to the benefit of capital owners only, which means that the nature of corporation changed.

Shareholders, or groups of shareholders, acquired a decisive influence on industrial choices and growth conditions. The dispersion of individual shareholding followed a form of concentration of financial assets in the hands of activist funds at the same time as the possibilities of hostile takeovers developed[13]. This evolution had an impact on the actual results of the economy. Admittedly, the development of venture capital and easing the listing of new companies promoted the development of new activities, particularly in the United States. But creditors' successful demand to obtain very high and especially immediate returns, changes in managers' remuneration modes and levels, as well as companies' practice of buying back their own shares to maintain or increase their value, shaped industrial strategies to the detriment of the most risky innovations or those that were simply longer to implement. They induced restructurings that were far from meeting technological requirements or a reshaping of product markets. The higher the returns resulting from these restructurings, and the *faster* they were obtained

13 However, it is interesting to note that in Germany, where banks continue to have close relationships with enterprises, existing investment funds are passive, whereas in France, where these relationships have become weaker, these funds demonstrate intense activism.

with regard to uncertain returns from investments with long gestation periods, the more speculators took precedence over entrepreneurs. This lack of commitment by capital owners was detrimental to the commitment of other stakeholders. The rise of investment banks (or transaction banks) with regard to commercial banks contributed to the development of more short-term relationships. The degree of engagement with enterprises has been reduced. Moreover, less equity was required from these banks to protect their customers.

At the same time, interconnections between financial institutions involved in the markets increased considerably, making a series of bankruptcies even more likely[14]. When the financial crisis occurred in 2007, the investment as well as commercial activity of banks was exposed. Business lending suffered to the detriment of investment and growth. Governments came to the rescue of banks at a high cost for public finances, creating a vicious circle between bank and public debts.

In this context, the real issue faced by monetary authorities is clearly less a problem of credibility with regard to their objective of controlling inflation through interest rates than the ability to deal with financial constraints to which companies are subject and their impact on their investments.

The necessary coordination cannot be the prerogative of an all-powerful market finance involving excessive shareholding instability because of the role played by investment funds, which would choose the highest possible immediate return and systematically impose on companies to influence production and exchange costs. It is part of the financial and banking organization, and it has ability to meet the need of companies that wish to have *patient capital*.

While entrepreneurs sometimes obtain the funds they demand at a fixed interest rate, the fact remains that the conditions for commitment of capital owners guide the type of investment chosen in terms of risk,

14 In general, financial structure consists of a dense network of conditional promise chains that makes systemic risk essentially endogenous.

amount and implementation period and hence the nature and extent of future market imbalances[15].

Thus, low interest rates and/or a long-term financial commitment encourage long-term investments, that is, requiring long roundabout methods of production that can lead to a distribution of purchasing power without immediate consideration in production of consumer goods, excess demand and inflationary pressures whose duration run the risk that they become cumulative because of a price-wage spiral. High interest rates and a short-term financial commitment promote short-term investments to which moderate inflationary pressures are associated, unlikely to be cumulative.

In fact, things can be more complicated. Long-term innovation investments are insensitive to changes in interest rates. Only sustainably high or low interest rates can have an influence because of the financing volumes that they help to mobilize[16]. In addition, low interest rates (and high securities prices) cannot be considered as equivalent, systematically, to a long-term financial commitment. They may reflect a situation whereby abundant liquidity leads to the formation of a financial bubble, with the high financial valuation of companies not resulting in a new influx of capital to their benefit. This means dissociating what changes in interest rates reveal from the effects produced by the type of financial and banking organization. Changes in interest rates affect mainly the choice between different assets at given points in time, while it is the amount of credit distributed and the loan terms that determine the innovative activity and growth.

Therefore, securities prices and interest rates can hardly be the only relevant indicators of what happens in the real economy. The financial

15 Allocating liquidity is not enough for credits to actually be requested. Setting an interest rate, in this case rather low, is not enough to encourage companies to invest or prohibit banks from rationing credit.

16 A project with a long implementation time cannot be started in the middle and it can rarely be stopped without damage, whatever the rise in the interest rate. As for a decrease in the interest rate at the time the project starts, its effect on the invested amount, if any, can only be delayed (see Hicks 1989, p. 123).

organization structure, the nature of institutions and the rules that characterize it are also indicators because they determine the degree of commitment of capital owners.

It is in light of this commitment that we can judge the corporate governance mode. Instead of governance being confiscated by shareholders alone on the questionable grounds that they would be the only residual creditors, it should rather emanate from the necessary arbitrations between the various stakeholders, between shareholders or bankers, employees, contractors and subcontractors or between producers and distributors. It should result in a sharing of the quasi-rent or residual surplus (which remains after all contractual payments have been made) between these stakeholders, not just for reasons of equity but for efficiency as well. Employment, subcontracting or distribution contracts of such long duration should match with medium- or long-term financial relationships[17].

Monetary policy seemed to regain relative autonomy with the liberalization of capital movements and the floating of currencies. By responding to inflationary pressures, it mainly paved the way for financial innovations thus increasing the elasticity of credit supply. Responding to the bursting of speculative bubbles by reducing interest rates, it also paved the way for a reduction in loan quality even more easily as banks securitized their receivables, thus relaxing control and supervision requirements. In either case, financial markets gained more power. They encouraged excess investment or, more importantly, the diversion of funds toward less productive or even unproductive investments. It is these financial markets that imposed similar monetary policies from one country to another that were unrelated to their specific difficulties and, very often, dictated by the

17 Hicks underscored the importance of strong jobs ensuring employees' commitment and that of a strong shareholding ensuring the commitment of savers (Hicks 1989). By this he describes, not the properties of a particular variety of capitalism, but the conditions for the efficiency of a market economy. It is only the way in which they are obtained that can differ from country to country because of its history and culture. This can only lead to relativizing the concept of varieties of capitalism and as demonstrated by the performances compared *over time* of different American, German or Japanese varieties.

desire to contain budget deficits. This was particularly the case within the euro zone, as the choice of a single currency was not accompanied by budget transfers.

The financial question does not change in nature with globalization. It changes in dimension. The issue is whether there are still some institutional schemes that make it possible for entrepreneurs and financiers, more broadly for all corporate stakeholders, to be able to commit in the long term.

The growing importance of investment funds may require companies to seek, even more than in the past, rapid returns on investment, involving refocusing, not necessarily on a core business that would refer to the specific skills of a stable workforce, but on the occasionally most profitable business since they can no longer have a stable shareholding or the support of community banks, most often of local or national origin.

The development of financial markets and products on a global scale is, moreover, a proven factor of the rise of investment banks to the detriment of commercial banks, and of securitization mechanisms that distance, a little more, capital owners from companies using such capital and weaken the principle of commitment. The fragility of growing financial relationships goes hand in hand with a growing fragility of working and subcontracting relationships particularly in certain parts of the more fragmented production system.

Difficulties are likely to become even more important as they are attributed to banks policy alone, not to denounce their investment activity excessively oriented toward the short term, but to deplore the lack of depth or excessive compartmentalization of capital markets.

This is, in particular, what can result from the recommendations developed within the European Union to detach banks from the financing of domestic public debts, to ensure it by issuing securities on the markets, and to develop the securitization of receivables on small- and medium-sized enterprises, in other words, to strengthen market discipline without any real consideration of the meaning of financial commitments.

5

The Return of Inequalities and Rents

The obvious growing inequalities, evidenced by a number of empirical studies[1], are largely the result of entrepreneurs' and financiers' behavior and their choice, conditioned by institutions, to prioritize the short term. The question that arises is whether this evolution reflects the emergence of a new global order responding to new technological or market conditions or whether we have to worry about the powerful rise of a form of disorder jeopardizing the stability of society as a whole.

Neither the qualification bias introduced by technical progress nor changes that new technologies introduce into the market structure can be enough to explain this growing inequalities. This is because the distribution of income not only records technical performance but also reflects social positions and political choices. Also, as Ricardo imagined, we must then consider that income distribution affects the accumulation of capital and consequently technological choices and not the reverse[2]. As will be seen below, a widening of inequalities and the accompanying polarization of jobs can have the effect of reducing the potential for growth by affecting the nature of implemented

1 See Piketty (2013), Atkinson (2015) and the World Inequality Report (2018).

2 It is necessary to go back to Ricardo to find an analysis that makes the evolution of distribution (a social phenomenon) the determining cause of the accumulation of capital and growth, a move toward the stationary state resulting from an increase in rent that feeds unproductive expenditures to the detriment of profit used to finance productive expenditures (see Ricardo 1821).

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technologies. Another effect includes increasing the risk of financial instability. This evolution often reflects a shortening of decision makers' time horizons. There is, therefore, the risk of a rent-seekers' economy taking precedence and initiating a new and fragile social order. This evolution is all the more likely as globalization brings with it segmentations that reinforce the development of inequalities and enhance a certain myopia of the main actors.

5.1. The false argument of technology

While none can deny the influence of new technologies on the shaping of markets and the exercise of power, it would be a mistake to stick to a simple cause-and-effect relationship. There is a close interaction between how these technologies take shape and the working of markets, be they labor, goods or financial markets. In fact, technologies do not exist on their own. Their nature and use depends on the economic activity coordination conditions[3].

There is no doubt that technological changes coupled with globalization are currently producing a polarization between low or unskilled jobs and highly skilled jobs, while intermediate-skilled jobs are disappearing. This is accompanied by wage polarization, because labor supply is not keeping pace with demand at both ends of the spectrum. With this situation, more reference is made to market conditions than to the properties of new technologies[4]. Low-skilled labor supply remains strong because of the large number of workers who do not have sufficient basic training and great availability of intermediate-skilled workers dismissed from their jobs due to robotization and competition from low-wage countries. In addition,

3 This observation refers to the mistake of considering technology as a datum and making the production function a technical relationship, whereas it is in fact an organizational relationship (see Georgescu-Roegen 1971).

4 New technologies are profoundly changing human–machine relationships: many codifiable and routine tasks are being automated, while others are emerging that require intuition, creativity, or simply flexibility and judgment. Hence, they create imbalances between supply and demand in the various labor markets, resulting in job and wage polarization (see Autor 2014).

demand for low-skilled labor is inelastic to goods and services prices, whereas the highly skilled labor supply is relatively inelastic to wage increase, if only because of the time required for training, while the demand for these skills is elastic to goods or services prices as well as overall revenue and keeps pace with increases in supply. From there, wage polarization follows that of jobs.

Certainly, there are potentially non-routine service jobs that use new but non-automatable technologies, in areas such as health and social assistance, which require intermediate-skilled labor that would justify medium wages. The difficulty arises from the fact that demand for this type of labor remains limited due to a lack of sufficient activity volume, with prices remaining potentially too high. The relevant tasks continue to be inadequately enriched and are carried out by low-skilled and low-paid people.

At the same time, the creation of digital platforms in different areas such as taxis or seasonal rental, linking primary suppliers and final consumers, which constitute two-sided markets, results in better use of existing resources, but also the creation of precarious and low-paid jobs for supposedly independent workers.

These are labor market operating conditions, but also those of training markets – conditions for adapting to technological change – which explain job and wage polarization and the widening of inequalities and not the intrinsic nature of technologies[5].

Another role that should be attached to new technologies concerns the prevailing conditions in the goods and services markets[6]. On the one hand, they helped in considerably enlarging the size of some markets that are becoming global by increasing the number of customers because of low or even zero prices and, on the other hand,

5 The discussion here is of the same order as that concerning the effect of machinery on employment. Neither job and wage polarization nor unemployment may be considered as a purely technical phenomenon.

6 This point is particularly well documented in Brynjolfsson and McAfee (2014) who establish the main characteristics of a new industrial age and also discuss purely economic issues, in particular, the widening of inequalities.

in enhancing the capture of the entire market by a small number of suppliers, and sometimes just a single supplier. While a very large number of buyers were able to benefit from very low prices and an increasing purchasing power, the small group of suppliers was in a position to earn the largest portion of the income obtained. Actors, writers, media presenters or top performing athletes in the fields of culture, entertainment, advertising or sports have witnessed a sharp increase in their incomes, while those who rank just below them have not recorded similar significant increases.

Admittedly, technologies open very large markets, but they also make it possible to carry out and disseminate a *ranking* including all or, in any case, the largest number of buyers, which is considered as an intangible performance criterion. Where there were significant capacity constraints or high communication costs, the most successful sellers could only satisfy a small fraction of the market. Where technology allows each seller to replicate its services at lower cost and provide them a globally low or zero price, the presumed best seller among them captures the entire market. In this new economy driven by digital technologies, remunerations are set on the basis of relative performance, in other words on ranking scheduled by *ad hoc* marketing organizations, and not, as previously, on that of absolute performance, involving large remuneration gaps. Widely disseminated performance rankings concern an increasingly broad range of goods and services, and the screening they require creates considerable income disproportions between individuals with similar performances. *Governance by numbers* echoes technologies and guides their use, if not their nature.

Finally, the same technological advances have transformed the organization of financial markets and investment banks, notably by making high-frequency exchanges possible. These exchanges increase responsiveness under the sole effect of injunctions coming from sufficiently sophisticated models to become opaque. A growing proportion of wealth creation has thus been captured by financial sector agents whose speculative capacity has increased tenfold. This use of technology falls within a context of deregulation that was not controlled by the properties of this technology but was based on a political choice.

5.2. A weakened growth potential

Basically, preferences are not homothetic, meaning that those whose incomes increase find new needs, consuming more goods rather than more of the same good[7]. Therefore, a significant increase in income and asset inequalities affects growth potential by acting on the productive capacity structure *through* the influence of these preferences on the demand structure.

New goods may be introduced because they are demanded by the wealthiest individuals and because the high prices, which the latter are ready to pay owing to their income level, guarantee that they can cover the high R&D expenditures. It is only if distribution is very unequal, because of the increase in revenue of the wealthiest, that the innovation of goods can be introduced. Enterprises that produce these goods can impose a high margin rate allowing them to finance R&D. Profits used to pay for innovation are increased and more resources are allocated to R&D, which stimulates growth. Consequently, the proportion of workers employed in sectors that satisfy basic needs decreases, while that of workers employed in new sectors increases. If the income elasticity of the demand for each good gradually decreases, new goods are diffused and become common goods, especially as the proposed prices will decrease once the R&D costs are absorbed.

This growth-enhancing scenario, which is quite classical in terms of incentives to invest in innovative goods, is subject to a weak assumption about the nature of preferences expressed by the wealthiest. Goods at the top of the hierarchy of needs would necessarily be new goods requiring costly R&D expenditures rather

7 People's continuous adjustment to changes in prices or income conditions modifies their tastes, introducing a hysteresis phenomenon in consumption patterns (Georgescu-Roegen 1950, 1954). "The most unpleasant aspect of the problem is revealed in the ordinary fact that behavior suffers a qualitative shock, as it were, every time the individual is confronted with a *novel commodity*. That is why it would be utterly mistaken to believe that technological innovations modify supply alone. The impact of a technological innovation upon the economic process consists of both an industrial re-arrangement and a consumers' re-orientation, often also of a structural change in society" (Georgescu-Roegen 1971, p. 127).

than ostentatious goods that are real markers of the existence of what Veblen called a Leisure Class.

If this is not the case, another possibility emerges. With non-homothetic preferences, an increase in inequality leads to an increase in the number of goods demanded to the detriment of increases in the volume of demand for each good, thus preventing access to technologies with increasing returns. The artisanal production of new goods takes precedence over industrial production. The high willingness of the wealthiest to pay causes the new sectors, which in the strict sense are luxury goods sectors, to experience price rather than quantity increases to the detriment of productivity gains and employment. Choices made prioritize the *short term* over the *long term*.

On the other hand, the existence of a sufficiently large middle class, in other words a large population with homogeneous tastes (the result of the reduction of inequalities) has the effect of increasing the demand for a wide range of goods. This makes the implementation of a technology with increasing returns relevant, as it enhances productivity gains and growth, requiring long roundabout methods of production[8].

This type of phenomenon was highlighted when the consequences of high inflation in Latin American countries during the 1960s had to be explained. This inflation, which was supposed to oil the wheels of trade and growth, caused a high transfer of income and wealth. Inequality increased in these countries, especially since the poorest were also the most vulnerable to the erosion of their nominal incomes, as is generally the case in developing countries. Contractual incomes were heavily penalized in favor of the non-contractual ones. This led to a restructuring of final demand at the expense of basic goods (or wage goods) and in favor of luxury goods manufactured on a small scale and often imported from abroad. A real segmentation of the society was established. Economic development was confined to a portion of the population. The two demons for growth of an economy

8 Murphy *et al*. (1989), based on historical data, make this a characteristic of successful industrialization.

that chose an inflationary strategy were excessive investment in the luxury goods industry (including personal investment in luxury real estate), and the neglect of investments in areas that require a longer wait – the capital goods industries and public utilities[9].

The growing inequalities observed in the contemporary world and the ensuing dualism may have the same type of effects, demand for luxury goods or ostentatious spending taking precedence over demand of new goods manufactured under the conditions of an industrial organization of production. The trickle-down effect of wealth from the rich to the poor could definitely be myth. Certainly, Keynes was not wrong in using the Mandeville Fable of the Bees to convince us that the consumption of the rich could provide jobs and incomes for the poor. But for him it ultimately involved denouncing the possible misuse of savings that could fuel what he referred to as financial circulation to the detriment of industrial circulation at the risk of creating a speculative bubble. He intended to alert us on the insufficiency of global demand. He could have as well agreed that the purchase of luxury goods, with the effect of increasing their prices, has little significant effect on employment and income and is similar to the purchase of financial assets on secondary markets or non-reproducible assets such as works of art.

The widening of inequalities as analyzed is related to the broader issue of ecological transition. The development of "green" goods and services, using specific technologies, closely depend on the size of demand made to them. It is subject to a sufficiently high degree of equality of income and assets, guaranteeing the existence of a middle class with similar tastes.

5.3. The perverse effect of household debt

This widening of inequality might not have had the effects highlighted above if the granting of credit to households had

9 It is Georgescu-Roegen (1968), and later Leijonhufvud (1997), who linked inflation with transformations of the social structure and, then, with the disarticulation of the industrial structure.

constituted support for the demand of the poorest or least wealthy and thus ensured that the growth enhancing productive structure would be conserved. But it was simply stepping back to take a better jump forward, as recently portrayed by the American experience.

In this perspective, the rich are net lenders. The middle class and poor are net borrowers. Lenders who have become richer and have a high level of savings may be required to buy financial and real estate assets whose prices will rise, while borrowers, though they become less wealthy, may acquire additional debt because of collateral price increase, but at the risk of becoming insolvent. This borrowers' behavior is all the more likely because of the *hysteresis* phenomenon, meaning that preferences change when income increases, but do not regain their original structure if income decreases. As observed, the widening of income inequalities does not translate into an equivalent widening of consumption inequalities because of both this behavior and the increases in the debt ratio of the middle class and the poor that makes it possible. The growth rate is, for some time, slightly affected by the widening of inequalities insofar as the composition of demand is not modified in relation to the distribution of income.

Nevertheless, conditions exist for a prey–predatory type mechanism to materialize enhancing fluctuations or even a major crisis, with the consequence of permanently weakening economic growth. Instability is all the more likely as debt is unsustainable. Excess consumption encouraged by debt gives way to credit rationing motivated by default risk, if not by default itself[10]. An immediate consequence is the further widening of income and wealth inequalities, which eventually affect the actual economic growth rate.

In this case, the granting of additional consumer credits (mainly housing credits) is based on a *short-term* vision. This involves postponing a deadline – a drop in the potential growth rate – without addressing the root of the problem, that is, the origin of inequalities, without taking the time to remedy them while taking advantage of the

10 Easy credit to households appeared in the United States as a political response to rising inequalities. The benefits were immediate, whereas the costs were only postponed, which is what led to the crisis (see Rajan 2010).

attitude of wealthy lenders seeking *immediate* capital gains to keep the economy afloat for *some time*.

5.4. Toward a rent-seekers economy

During the recent period, particularly in the United States, the main beneficiaries of the growth in overall income have been top wage earners. The main driver of rising income inequality are wage differences, the highest of which incorporate bonuses. It then came to the mind of the economists, well versed in neo-classical reasoning, that very high wages are nothing more than the remuneration of a talent and skill that would be further enhanced by new technologies.

In these high wages, it is difficult to recognize remuneration for a contribution to the productive activity, whether they include those paid in finance, marketing, advertising or entertainment[11]. Such wages are more like a rent than they are the remuneration of a productive work, even a managerial work. If we moved from a rent-seekers' society in the traditional sense to a society of executives in the 20th Century, it would be misleading to ignore that senior executives belong to a new type of rent seekers.

Such wage increases did not in any way lead to a significant increase in the corresponding labor supply, and this is the basic definition of rent[12]. The rent of a good (or service) is the portion of the price that does not influence the available quantity of that good (or service). An increased demand for this good or service only increases the price and enriches its holder without inducing an increased supply. Certainly, it happens that a rent does not affect the immediately available quantity, but that available in the future. It is no longer a rent

11 "The observation that even highly educated Americans have, for the most part, seen their incomes fall behind the average, while a handful of people have done incredibly well, undercuts the case for skill-biased technological change as an explanation of inequality and supports the argument that it's largely due to changes in institutions, such as the strength of labor unions, and norms" (Krugman 2007, p. 75).

12 This is particularly the case for the wages of executive managers, often in some sector owned by the companies they run and sometimes regardless of long-term outcomes, under the pretext of the scarcity of required skills and global competition.

in the strict sense but a quasi-rent. Here it is not the case, insofar as the explosion of high incomes leads executive managers, whose contributions to productive activity are unobservable, to neglect human capital investment and cooperative behaviors up to the point of abandoning any ethical principle[13].

Moreover, the characteristic of rent that distinguishes it from corporate profit is that it is intended to fuel unproductive expenditure, be it the purchase of financial and real estate assets or luxury goods. Such purchases push up the prices of these assets or goods without significantly increasing employment. The current generation of the wealthiest is, without doubt, largely made up of brilliant innovators, advertisers or senior executives who receive high wages and bonuses, but they join the cohort of rent seekers even before their heirs.

Thus, rents are no longer attached to a social status as may have been the case with land rent. When the wealthiest part of the population purchases luxury goods or non-reproducible assets, the revenues used, even when they are formally wages, are similar to rents. When individuals or social groups, taking advantage of their situation in the market process, obtain particularly high incomes incommensurate with their contribution to productive activity, these individuals become rent seekers. This is the case for financial traders, but also economic agents more or less directly connected to marketing and advertising in touch with large markets.

The recent deterioration of the sharing between profits and wages to the detriment of the latter cannot hide the essential, that is, the rise in the share of rents. The fall in the share of wages is directly related to the polarization of jobs and their wages. While a fraction of wages has the status of a rent, it is same for a fraction of profits when they are used for something other than to make productive investments, for example buying back the company's shares to support their price and

13 Benabou and Tirole (2016) propose a model that accounts for this situation, which expresses what they call a bonus culture and which can be considered to reflect a shortening of the time horizon of the people concerned, most often executive managers.

to guarantee very high wage level to managers or, when they serve to pay intellectual property rights whose level is not justified by the protection of the capacity to innovate but results from inappropriate regulations and only translates into higher prices.

In this context, the requested price and remuneration flexibility is an essential factor in the formation of rents. It is, in fact, the expression of a lack of coordination, the recurrence and deepening of market imbalances and not an effect of technological and preference changes, which in any case occur slowly. It leads to their excessive volatility, with one of the aspects being the explosion of higher wages, creating the conditions for the development of predatory behaviors aimed at capturing rents, which are by definition immediate incomes. The paradox is that there is indeed a gain opportunity that results from price flexibility in response to market imbalances, but this opportunity is seized by a few whose action, while offering them the expected gains, only sustains or aggravates these imbalances[14].

5.5. Social order in question

Rents segment economic activity by creating niches that reinforce each other. A highly unequal distribution, favoring purchases of luxury goods understood as goods whose already very high prices are still increasing without significant increases in quantities produced or employment, creates a segment of society that lives on revenues generated from these prices. To primary rents are added secondary rents, induced by the former, which are those captured by producers of luxury goods and services, taking advantage of price increases rather than increasing production and employment, or by intermediaries in financial asset or non-reproducible asset markets. A leisure class, using Veblen's expression, is constituted of those whose wealth increases to the detriment of a middle class that is fading away. It captures a growing share of income and lives, in some way, around itself, separated from the rest of society, organized in

14 This shows that the existence of potential trade gains cannot explain the convergence toward market equilibrium as claim economists who bring back the whole analysis to the specification of equilibrium positions or paths.

concentric circles around senior executives or sports or entertainment superstars. Taking up Pareto's sociological analysis, it can be observed that there exists a support class for the elite class, whose members do not belong to the richest categories of the population, but belong to a circle that promotes a less or non-productive activity.

The major social conflict is that which opposes rent seekers on the one hand to capitalists and workers on the other hand. Capitalists are understood here as those whose profits are used to accumulate productive capital, and workers are those who consume industrial goods and save to finance the industry. Thus, a distinction must be made between rent and quasi-rent in Marshall's sense, which induces future production and is similar to profit by its function in the economy consisting of contributing to the accumulation of productive capital. Admittedly, it is not easy to empirically distinguish quasi-rent from rent since everything depends on the way the income in question is used by its holders, whether such quasi-rent is perceived on a tangible or intangible capital (for example intellectual property rights). It is, however, a crucial distinction if we want to know the direction of the path followed by the economy. Distinguishing between rent and quasi-rent implies not considering market imperfections as always being obstacles to growth, but, on the contrary, recognizing them as factors of growth if they help securing irreversible investments in a context of radical uncertainty, they enhance the accumulation of productive capital[15].

Putting rent formation at the heart of the distribution conflict supports the idea that inequalities, far from resulting from intangible laws of an essentially technical nature, are above all the product of institutions and norms that these institutions convey. This is what Keynes referred to concerning the distribution of income and wealth prevailing before the First World War. He noted in this regard the degree of inequality and also their level of acceptance by society[16].

15 This is the perspective developed by Schumpeter (1941) for whom the behavior of an oligopolistic industry cannot be reduced to increasing prices and reducing production.

16 "On the one hand," he wrote, "the laboring classes accepted from ignorance or powerlessness, or were compelled, persuaded or cajoled by custom, convention,

The conflict in question is inherent in every socially organized human society. It opposes an elite, to which is entrusted the necessary and unavoidable task of coordination, to the rest of the population. This elite can abuse its power to capture an increasingly significant portion of wealth at the risk of causing a social explosion and breakdown of society[17]. But no social transformation can prevent this type of conflict inherent in the division of labor. The social organization can change, but the roots of the conflict remain. Simply put, after every breakdown, new elites replace the old ones[18]. The only answer lies in the political choice to prevent the formation of excessive rents and ensuring that a middle class is maintained through various institutional means. In particular, taxing rents, in other words revenues from goods and services whose supply is inelastic, will contribute as will an increase in the marginal rates of income or capital taxation.

5.6. The new segmentation

The development of trade, which results from technical improvements, in particular those relating to transport and communications, and from the lowering of all sorts of barriers, is an undeniable growth factor since it ensures a significant increase in the size of markets likely to allow access to increasing returns.

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authority, and the well-established order of Society into accepting, a situation in which they could call their own very little of the cake that they and Nature and the capitalists were co-operating to produce. And on the other hand, the capitalist classes were allowed to call the best part of the cake theirs and they were theoretically free to consume it, on the tacit underlying condition they consumed very little of it in practice". And add to that if the main function of profits was to allow the consumption of rent seekers, "the world would long ago have found such a system intolerable" (Keynes 1919, p. x).

17 It is interesting to note that the implications of the abuse of power by elites were already attracting Adam Smith's attention.

18 This analysis settles on the illusory and dangerous nature of the idea that it could one day disappear (see Georgescu-Roegen 1971, X.4). It strengthens Keynes' conviction that the wealth of society, if not its viability, depends on awareness by elites both old and new of the need to avoid capturing an excessive share of this wealth, and abstain from abusing their power.

The existence of global markets enables a very small number of individuals to obtain very high revenues, obviously unrelated to their contribution to the productive activity. A leisure class is thus formed at the global level. Hence, inequalities widen in each country, whether a developed or emerging country, whereas the successful development strategies of certain emerging countries show a decline in inequalities on a global scale, simple statistical result of the catch-up by these countries. Also, the central question is that of a new mode of rents formation whose particularity is to segment the world that we would rather wish unified.

A first segmentation proceeds from the observable break in the strategic behavior of executive managers due to globalization. It is nothing else but the resurgence of a conflict that seemed to have become secondary between capitalists and workers. The executive managers of large companies, engaged in the international fragmentation of production, become or once again become more attentive to labor cost differences in a perspective of *immediate* competitiveness and less attentive to keeping wage progression at the level of that of labor productivity at the real risk of affecting final demand and undermining growth. The conflict between capital and labor, profits and wages, again takes the reverse of what happened in developed countries after the Second World War, with a general decrease in labor share in the global income and an aggravated deepening of inequalities, generating rent-seeking behavior.

Moreover, these executive managers are tempted, as are the richest individuals on their own account, to take advantage of tax competition and make their businesses evade taxation, rendering attempts to tax rents ineffective at the risk of creating difficulties for social protection. A group of companies and social class are formed, which intend to free themselves from the solidarity hitherto organized at the national level and from a redistribution requirement.

A second segmentation results from the sustainability of international trade and financial imbalances. The widening of inequalities within each country, emerging or developed, affects the commercial and financial relations between them, when some accumulate trade surpluses, others accumulate deficits, and when financial flows go from lenders from the former to borrowers from the latter. Certainly, it is still possible to imagine that the surplus country renounces goods and services today in order to receive, in return, goods and services tomorrow, that its investments in the deficit country helps the latter to restore its competitiveness and to export. But when the excess savings of some are used to finance the consumer credit or non-productive purchases of others, persistent or growing imbalances are predictable, and a rebalancing of trade becomes problematic. This is what happened between developed countries such as Germany and Spain when the surplus savings of Germany, the result of widening inequalities that translated into a decline in domestic demand, fueled the purchase of real estate assets in Spain with a structuring of revenues and demand that was unfavorable to growth. This is also what happened between emerging countries like China and rich countries like the United States. The wealthy in emerging countries, where the financial system does not allow poor and middle class households to acquire debt, will tend to invest a significant share of their savings in foreign rather than domestic assets. This influx of savings in rich countries leads to increases in asset prices and correlatively, in the debt of the poor and middle classes.

Mutatis mutandis, what is true within one national economy is also true for the global economy composed of several national economies. With globalization, not only does the rent seeker's image not disappear, but their presence nurtures international imbalances at the same time as the means to reduce their weight are reduced. National public regulations are weakened at the same time as the risk of lowering the middle classes becomes increasingly significant[19].

19 This risk is also part of a deliberate will. "Liberals want to restore the middle class society I grew up in; those who call themselves conservative want to take us back to the Gilded Age, undoing a century of history" (Krugman 2007, p. 141).

6

The State in View of the Globalization Challenge

The globalization we have experienced in the years after the Second World War is subject to the primacy of national regulations supported by institutional variations specific to different nations, but contributing to the objective of national growth and solidarity[1]. The new globalization is reversing the order of priorities. National objectives are subject to it[2]. It is, more or less explicitly, the fulfillment of an ideal, that of general market equilibrium, which is essentially a-institutional, rendering the national framework or even the existence of States obsolete. More exactly, institutions promoted are reduced to strict rules assumed to guarantee free competition. National objectives are reduced to *numerical indicators* that do not measure performance, but the degree of compliance with these rules. The existence of rigidities or frictions described as market imperfections is considered harmful in terms of efficiency and well-being. The required structural policy consists of reducing these rigidities and frictions, such as to restore a supposedly optimal market environment with the idea that once this reduction is made, corporate

1 This institutional diversity serving the same purpose was particularly described and analyzed by Shonfield (1965) and Rodrik (2011).

2 This reversal of priorities or norms reveals that what is at stake is less the liberalization of trade than the way it is conducted (see Rodrik 2011).

Disorder and Public Concern Around Globalization,
First Edition. Mario Amendola and Jean-Luc Gaffard.

and household behaviors will *instantly* change, some to invest more, and others to consume more[3].

Regarding institutions, they give rise to a hierarchical ranking, with perfect competition consisting only of rules that place it at the top of this hierarchy. The purpose for the demand of structural reforms intended to make markets more flexible is to get closer to this ideal to reduce the weight of national institutions, in fact States, considered as obstacles to an efficient allocation of resources at the national and international level.

It is an effect of an uncontrolled opening up with, paradoxically, the consequence of shortening the time horizon of economic agents. Ignoring the existence of market disequilibria can only lead to their aggravation. Containing them requires institutions, which are not only reducible with regard to the intangible rules embodied in numerical indicators, but are diverse because of historical, cultural, social or political differences revealed by their national roots. Indeed, nations continue to exist. It is at their level that distortions are most visible and felt. It is nations that are called into palliate growth deficit and the rise of unemployment. It is nations that have to create the enabling environment for risk taking, which is understood as actors' ability to project into the long term. Also, the issue remains to know the policies they can or should pursue. The problem is also to know the type of relationships that nations are likely to establish between them, relationships that are based on cooperation and not rivalry for market shares. The answer to this double question is that borders evolve and move but persist and keep their usefulness when they contribute to the convergence of the real performances of nations.

6.1. Free trade in question

One of the salient aspects of dreamed globalization is the old belief, supported by a too often truncated theory, in the benefits of the development of trade between individuals and between nations. The idea that there may be losses and gains and thus conflicts is, often,

3 This is what the rational expectations hypothesis expresses in economic models.

ignored as well as the idea that, inevitably, obstacles or difficulties must be overcome in order to succeed in capturing the desired gains. Ultimate equilibrium, which accounts for new market conditions, is the only situation taken into consideration as if it were to establish itself naturally and immediately. No place is given to the need for coordination, including the means and time to address it. Not considering this aspect gives rise to the ambiguity that surrounds the free trade doctrine.

Adam Smith had warned of the setbacks that could result from this ambiguity. He knew perfectly well that immediate opening up to foreign competition could only cause considerable damage to national enterprises, which would be often driven to excessive capital destruction. He concluded that a fair consideration for the interests of these companies required opening up to be done *gradually* and announced *well in advance* so that enterprises could effectively prepare for it.

Undoubtedly, there are mutual gains in trade, but these are potential gains and obtaining them are *neither immediate nor even secured*, as there are many obstacles and sources of conflict, which call for regulatory mechanisms allowing market adjustments to be made in good conditions, without unnecessary destruction and avoiding disorder. In addition, gains obtained by some are accompanied, in most cases, by losses for others, which requires redistribution actions if the opening is to be accepted. Workers can be particularly penalized when imports concern labor intensive productions or when financial globalization makes taxes weigh increasingly on labor. It is also likely that the higher the gains of some and losses of others, the more the required redistribution will be difficult to implement.

These regulations take place at the level of the nations, including through negotiations and agreements that structure relations between them. These nations can engage in direct conflict with one another when it comes to conquering or keeping markets. However, they are not supposed to compete with one another, like companies that share a market, since the good performance of one nation is not necessarily acquired at the expense of another.

From this observation, it is clear that the development of international trade must be able to effectively enhance growth. The primary reason is, basically, that importing goods formerly produced by local firms frees up productive resources that will be better utilized, which should indeed be favorable to the domestic country's growth and also to that of partner countries. In other words, according to the theory backed by Smith and Ricardo, the division of labor in its international dimension is, potentially, a growth factor. All that is left to be known is on what basis it operates, how it is likely to stimulate growth and how it is achieved through the necessary and recurrent adjustments of productive capacities[4].

If there is a problem, it is not so much in the nature or existence of trade that it should be sought as much as in the changes that affect the conditions of this trade, in the modification of the flows of goods and services as well as investment flows following technological or preference shocks.

The transfer of industries from one country to another and the creation of new industries, which replace old ones which have been relocated, open a transition period. The opening of trade entails not only the systematic questioning of the existing division of labor, which results in changes in the specialization of countries involved in international trade, but also in an increasing international fragmentation of production processes constantly worked at. Enterprises geographically distribute their activities, choose to export, decide to outsource or invest abroad to respond to technological opportunities and market conditions. Their performance, and ability to create jobs, including in their country of origin, depend on their international integration. This fragmentation, as well as the increased modularity of production processes, leads them to choose complex organizational strategies for outsourcing activities, to import intermediate products and to invest abroad, all of which change

4 Unlike the mercantilists, Ricardo does not view international trade as a means for States to enrich themselves by developing their exports. He rather sees international trade as a way to make better use of freed domestic labor resources through the import of goods produced more efficiently abroad. Exports are then required to balance imports (see Ricardo 1821).

according to the opportunities that emerge and constantly modify the geography of the world economy. The transformation of value chains raises the issue of where this value is captured and its impact on investment strategies. In short, a complex creative destruction process is implemented that drives employment and income trends that are necessarily perceived as a direct consequence of the opening of markets and international or interregional trade. Nations are involved in this process and continue to play a role in its orientation because they remain the place where political decisions are made.

Distortions that disrupt trade and influence macroeconomic results are first of all internal distortions. The often defended argument is that these distortions are due to wage rigidities that prevent an efficient reallocation of resources. Thus, when international trade damages sectors with a high intensity of unskilled or semi-skilled labor, as would a biased technical progress to which it is assimilated, the only obstacle that would prevent the capture of trade gains would be the downward nominal wage rigidity of the workers concerned. Transfer or relocation would then cause an increase in unemployment rate, which would, somehow, replace an increase in wage inequalities, which should, however, only be temporary. The appropriate policy would then be to encourage greater flexibility of the labor market with the joint aim of promoting effective reallocation of resources and the return to full employment while accepting more inequalities.

Sticking solely to adjustments in the labor market is, however, illusory. The distortions recorded are first of all real distortions that affect the production capacity structure, whether it is the products or the production methods that change. They are not intrinsically related to specific behaviors or institutions, but to a fact: it takes *time* to build a new production capacity that gradually replaces the old one that is being destroyed[5].

This production difficulty is obviously not exclusive to open economies. In this context, it takes a particular dimension insofar as

5 This idea is common to Smith, as mentioned above, and Walras when he opposes the free trade agreement between France and England (the Cobden-Chevalier Treaty), which he considers as an economic coup.

the opening introduces competition in terms of wage costs, which, together with the working of financial markets, may lead to greater flexibility in labor markets, in other words structural reforms whose impact must be carefully measured.

6.2. The illusory promise of structural reforms

Institutions and market forms, adapted to the task of ensuring the viability of an economy subject to recurring structural breaks, are themselves a product of evolution as are technologies and preferences. Far from being predefined, they emerge as a result of the change process, reacting to crisis situations or responding to a shock. It is in this regard that institutions characteristic of the Welfare State (or Social State) established themselves after the Great Depression. Thus, new rules are now proposed if not imposed to address the specific constraints of the new globalization. These are part of the belief that it would be enough to make markets more flexible and in this way create a system of incentives that are supposed to ensure an optimal situation almost *instantaneously*.

The focus is then exclusively on supply conditions and requirements that are supposed to affect potential growth through this channel alone. The medium- or long-term equilibrium referred to is characterized by a natural unemployment rate and a potential growth rate that have to obey supply forces (labor and technology supply), which could only really be reached in fully competitive markets.

Growth arising from trade expansion is rooted in innovation activities that generate a process of both destruction and creation of jobs. The necessary reallocation of human resources requires this professional and geographical mobility. The main obstacle to restructuring and growth would then lie in rigidities specific to the labor market and goods markets.

The argument advanced in support of this assertion is that since investments in new technologies are very risky, they would lead to significant job creation and destruction. The difficulty of dismissal would then become an obstacle to the implementation of these investments, which are, however, investments that generate the highest productivity gains. The degree of flexibility of the labor market would guide technological choices in a more or less growth-promoting direction. Countries with rigid labor markets would be expected to specialize in low and medium technology (old technology) sectors, unlike countries with flexible markets where companies would choose to invest in leading-edge sectors.

Structural reforms in goods markets, as they increase the degree of competition (by reducing the degree of monopoly), would favor the reallocation of production from low productivity sectors to those with higher productivity gains and thus increase the average productivity of the economy. Structural reforms of the labor market, by eliminating rigidities, would allow a reallocation and reskilling of the labor force, so that the supply of jobs in new sectors would respond faster to a higher labor demand. Together, these reforms would increase productivity and potential growth rates. The so-called natural unemployment and vacancy rates would be all the higher as the intensity of job creation and destruction flows is stronger and the growth rate is higher. Unemployment would be a search unemployment, its duration normally short since it will only be an issue of matching job seekers with job vacancies except, of course, in the case of market failures attributable to rigidities.

If we consider creative destruction as a simple matter of matching labor supply and demand within new activities hit by significant turbulence due to very strong competition, then unemployment is effectively a search unemployment. This means that dismissals concern skilled workers who can easily move from one company to another and from one job to another. Here, job destructions are the result of a selection of companies competing with each other through innovation. This selection results in a redistribution of jobs without significantly altering the total employment since the winners recover all the assets. Employees will migrate more easily from one company to another where the same skills are required, which is often in the same geographical area. There is indeed a prerequisite: workers should have the required skills that make the option of leaving a job to find another credible. Winning or surviving companies should, moreover, have an interest in this mobility, from which they expect knowledge and skills transfers that are useful for their projects. They will undoubtedly carry out wage increases all the more easily as they are in a situation of monopolistic competition in their market that guarantees them relatively captive customers.

It is highly unlikely that the institutional protection of employment constitutes a real obstacle to its redistribution and becomes a reason for companies not to engage in innovative activities. While employees expect to easily find a job, companies can expect that breaks will occur without major difficulty. This is evidenced by what happens in specific employment areas because of the highly technological nature of jobs offered and occupied, though subject to rules that foster rigidities. Dismissed workers quickly find, on the spot, a job corresponding to their skills as in areas where labor markets are far less rigid, such as in Silicon Valley, with as (as a corollary) not a reduction in wage costs but, on the contrary, an increase in the remuneration paid to employees. The mobility, most often voluntary, of highly skilled workers is, in fact, in no way affected by the rules governing labor markets.

Things are different when job destructions concern declining activities because they require a professional and geographical mobility of related workers that takes time. Labor market institutions, such as collective bargaining, minimum wage, employment protection laws and unemployment benefits, are undoubtedly rigidities that make job creation less attractive for employers and easier for workers to defend their obsolete jobs. The dominant theory is that this results in a rise in unemployment rate by preventing some wages from dropping and an alteration of income distribution by artificially increasing the relative wages of workers in declining activities. However, reducing job protection and decreasing wages to encourage mobility is not a solution. All depends on what really happens to labor resources immediately and later as the hysteresis phenomena take place.

The hypothesis that can be formulated is that structural reforms, far from leading to an increase in productivity, could create real obstacles to innovation, the main obstacle being the development of forms of dualism within each country and between countries. This will be the case when creative destruction is the result not only of the selection of companies which are all engaged in new activities but of the disappearance of old activities and the creation of new ones, a transition that takes time and requires reconversion of activity. It is difficult, in this case, to stick to the identification of possible long-term configurations of the economy without having to worry about the sequence of events that may occur as a result of the existence of flexible markets: a sequencing that can lead to dualism.

In fact, the resources released, far from being directed to advanced technology activities with higher remuneration, may likely be forced to move to activities where the jobs offered are low or unskilled, sometimes part time and most often precarious. The multiplicity of jobs held by individuals during their professional life may well fall within this precariousness rather than reflect the multiplicity of professions successively practiced and corresponding skills due to technological changes. In this case, high employment entry and exit rates would be indicative of the precariousness of jobs rather than the intensity and speed of the innovations that companies undertake.

The drop in wages of dismissed workers from industrial sectors in difficulty and hired under precarious contracts in activities often protected from competition, emanating from outsourcing and of low productivity, shows the impoverishment of large segments of the population, which will result in a decline in domestic demand. It can only be contradicted by the granting of consumer credit to these impoverished households, which is not without risk if the insolvency should push the economy into crisis, as was the case in the United States in 2008.

This drop in wages also affects human capital accumulation conditions and, consequently, potential growth. Financially constrained workers will have neither the time nor the financial means to be trained, even if they are encouraged by the wage gap with skilled workers and this, since the credit market is not perfect, it is not possible for them to pledge a contingent loan on their future income.

The dualism that sets in, being synonymous with widening inequalities and decline of the middle class, affects the demand structure. The wealthiest households buy luxury goods that are manufactured in small quantities, sometimes abroad, or financial and real estate assets. The poorest households abandon domestic products and buy products manufactured at low cost in low-wage countries. A form of deindustrialization takes place, with the effect of reducing productivity gains, export capacity and the potential growth rate. There is only one response to this: when the strategy conducted by companies and supported by government results in growth being based on exports of industrial products or, more precisely, on a sustainable trade balance surplus if ever it were to have any meaning in the long term.

In short, the clearest result of the search for labor market flexibility may well be a polarization of jobs between highly skilled, highly paid jobs and unskilled, low-paid jobs, with a decrease in medium wage. It is very similar to an internal devaluation that would better be referred to as wage deflation and whose real goal is to increase the market shares of domestic companies and attempt to base growth on a sustainable trade balance surplus for the country.

Also, it is not labor market rigidities that guide investment and technological choices in a way that is unfavorable to productivity and growth but the development of dualism in the labor market, which goes hand in hand with a regressive change in the nature of employment contract and decrease in medium wage, affecting the economy's structure and development capacity. This is undoubtedly the reason why, during the last period, productivity gains were so low in the United States and euro area countries, despite significant differences regarding employment protection, competition intensity in goods and services markets, as well as the weight of the public sector and taxation.

6.3. The obsession with competitiveness

Whether structural reforms or macroeconomic policies, their implementation framework remains that of nation-states which, in response to international economic relations disorders, are sacrificed to the dangerous obsession with competitiveness.

The pursuit of competitiveness by a nation defined by its borders remains a complex subject. Some challenge the term itself that cannot be applied to a nation and would only make sense for a company. It is true that a company whose market shares are reducing to the point where it can no longer pay its employees and suppliers is bankrupt. It is also true that, for a country, in theory and in practice, and for the future, a trade surplus may be a sign of weakness and a deficit a sign of soundness. Everything will depend on what the state of trade balance implies for employment and investment. It is true that if a company in a particular sector gains market share, this is necessarily done to the detriment of its competitor, because the employees of one company are not the buyers of the other's products. In contrast, it is also true that when one country exports more to another, it can be assumed that the additional revenue earned by the former will, in part, fuel demand for the benefit of the latter that could invest and make up its deficit. The profits of one become the benefits condition for the other provided there is enough time to obtain them. This back and forth justifies an international trade whose purpose is a better use of resources worldwide, with the benefits being shared by all, if not even equitably shared. This storytelling makes sense. It does not mean that conflicts have disappeared along with borders, though.

In a context of increasing returns, the territorial distribution of activities becomes conflictual when it is more equal (or less unequal) and the per capita incomes of the countries concerned get closer. Indeed, as long as one country concentrates most industries, it becomes important that many of such industries relocate to another country. This allows the former country to concentrate its resources on a smaller number of activities and benefit from higher productivity gains. As for the other country, it will gain from developing an activity with increasing returns to scale. This is no longer the case beyond a certain threshold. When the distribution of industries is relatively balanced, any geographical dislocation of an industry is a loss for one country and a gain for another, even as global income increases[6]. However, the environment concerned is, most often, a

6 It is possible to show that the zone of geographical distribution of industries between countries within which global income is potentially the highest is also the

monopolistic competitive global market, in which companies from each country have niches that all have the characteristic of offering increasing returns. Gains or losses from the redistribution of activities and trade vary within reasonable limits and remain relatively evenly distributed[7].

Nevertheless, trade surpluses or deficits, which result from obvious competitiveness gaps between companies and discrepancies in levels of development, may persist durably, if only because their reduction takes *time*. They require appropriate economic policy responses, whose aim is to make possible what some have called the *return journey*, that is, the setting up of a mechanism whereby the income earned by some becomes a demand for others. This will require that financial flows that are supposed to go from surplus to deficit countries should fuel productive investment in the latter countries rather than getting lost in the financing of unproductive activities. *Time* is also required, the time needed to build new productive capacities.

Two conceptions clash. One consists of relying on markets that should be freed from all obstacles and recognizing the determining role of price flexibility, whether in terms of depreciation or appreciation of exchange rate, and wage decreases or increases. The other preserves the principle of public regulation. The first of these conceptions is based on the idea that disequilibria can be quickly if not *instantly* resolved by pricing changes while its implementation paradoxically contributes to exacerbate them. The second recognizes the recurrence of these disequilibria and underlines the required means to contain or solve them and the time to implement them. The first

zone within which there is a relative equilibrium in this distribution implying that a redistribution, where there are losers and winners, becomes potentially conflictual (see Gomory and Baumol 2000).

7 The international trade theory adopted here, developed by Krugman (1980, 1981), is a theory of absolute advantage inspired by Smith. Average costs are decreasing and market imperfections make mutual gains possible, but also equitable. According to Ricardo's theory of comparative advantage, constant average costs and mutual gains can be very high for some and very low for others.

concedes to the obsession with competitiveness while imagining an ideal world without borders. The second does not concede, but, by continuing to give States a role in the coordination process, it recognizes the existence of these borders as well as the possibility for these States to access mutual and equitably shared gains.

6.4. The dilemma of borders

In yesterday's world, global regulation took place within the limits of nation-states, economic policy tools implemented at this level aimed at meeting an overall performance goal specific to each, in conjunction with a solidarity objective that ensured political and social coherence.

Nations are diverse, if only because of differences in endowments and institutional architecture arising from culture and history. But the convergence of real performances is possible, provided that trade leads to specializations with comparable virtues in terms of productivity gains. Commercial surpluses and deficits naturally exist, but the conditions for their absorption also exist, which are through cross financing and investment flows. Such a convergence is, *inter alia*, conditional on the regulatory intervention of governments, which have to make it possible for capital flows to feed productive investments, notably by imposing a financial organization capable of fostering patient capital.

It is only when territories are regions with no real regulatory powers that real divergences become unavoidable and that resource transfer mechanisms have to be implemented. The issue concerns declining and growing businesses that referred to declining and growing regions. Effective regulation has a double aspect. On the one hand, taxes are levied on the income of the wealthiest territories that can help in financing the social expenditures of territories in difficulty. On the other hand, geographical mobility causes workers to leave declining businesses and territories to join growing businesses and territories. These regions, therefore, share the same destiny and constitute a national community.

The landscape might become more complex. Territories can develop activities that fall largely under the category of unproductive activities by benefiting from expenditures made from incomes that could be called transfer incomes, earned by workers in the public sector, employed in other regions or by inactive people. Areas of productive investment are then separated from those of final consumption. Economic stabilization efforts have, beside their overall short-term positive effect, a medium or long-term detrimental distorting effect. A social and economic conflict potentially exists, which could question the coherence of the nation.

Globalization promotes the actual irruption of such a conflict. Far from eliminating borders, it *changes their position*. Claiming an abolition of borders means abandoning an institutionalized solidarity between the rich and the poor, between expanding and declining regions, in favor of spontaneous solidarity that would be the fruit of a supposedly perfect market game. Yet, this solidarity has no real nor theoretical existence. To be convinced of this, one only has to recall that a general market equilibrium is, theoretically, compatible with a very unequal distribution of income and wealth[8]. Conversely, several fracture lines emerge because of the competition between different institutional systems, which create so many new borders. These fractures, far from being resolved because of market action, keep deepening, paradoxically signaling the sustainability of national spaces as areas of expression of social divisions along with their new fragility.

The first of these fractures is created by companies that have internationalized and preserved their specific business model, conditioned by the institutions of their country of origin, but have tried to take advantage of the legal systems of the countries to which they have outsourced some part of their business. Fragmenting and relocating production allowed them to operate under different legal rules, particularly social and tax rules but without having to abandon

8 The competitive equilibrium only satisfies a requirement for survival, meaning that everyone has *a priori* a minimal revenue, possibly even without working, which makes it possible to understand the claim for a universal income that thus becomes a condition of survival within this context.

the business model that gives them a comparative advantage[9]. Institutional differences become a weapon of competition between companies, but also between nation-states, with some compelled to abandon whole parts of their social model[10].

The second fracture is more directly geographical in nature. Within States, less productive regions are no longer a market for productive regions, and the latter are refusing to carry out the transfer of hitherto existing income, leading to a break in solidarity as well as a weakening in the means of stabilization. Geographical dualism sets in, which may be reinforced by structural reforms[11].

The third fracture concerns specifically European nations which, after choosing a more complete integration and introducing a single currency, found themselves in the position of having to adjust to disequilibria by carrying out wage deflation, at the risk of creating the conditions for a direct confrontation since each of them is looking for an increase in its market share[12]. Moreover, after escaping exchange rate crises, they had to face sovereign debt crises. The reason for this is that the public debts of different countries are mostly held by non-residents when the latter arbitrate between these debts in a context where the Central Bank does not, in principle, have the power to buy them up. The fear of a default by any State, due to liquidity shortage, makes investors to refrain from subscribing to new bonds,

9 This is particularly the case for German companies that have relocated the manufacture of their product components to low-wage countries and maintained assembly activities in their country.

10 The law, particularly social law, is thus subject to supposedly natural laws of the complete market. "It is freedoms associated with free trade (freedom of establishment, services provision, movement of capital and goods) that are invoked to authorize investors and companies to evade the laws of the countries in which they operate and to choose another that is more profitable for them" (Supiot 2010, p. 65).

11 This fracture internal to each State, which is indicative of the rejection of a territorial Keynesianism, extends a little more when wealthy regions claim their independence (see Davezies 2015).

12 Spain thus chooses to reform its labor market with the aim of lowering its wage costs and enabling its companies to gain in mid-range product competitiveness to the detriment of French companies.

precipitating the dreaded liquidity crisis, even though the State involved remains solvent[13]. Wealth transfers occur from the most indebted to less indebted countries, well beyond the initial differences in real performances that are thus increased.

Should we then take advantage of these fractures and weaknesses that they create by finally relying on the regulatory function of markets alone, or should we continue to remind ourselves that public action can never be neutral and that the challenge is to find a coherence that is necessarily part of the long term?

6.5. The temporal coherence of public action

If the world were in a state of general equilibrium, it would be imperative to impose a strict neutrality on governments with regard to monetary and fiscal policies. Only market failures attributed to institutional rigidities, obstacles to their proper functioning, could justify government intervention, as would be the case of an insufficient deepening of financial markets, preventing recessions from having their cleaning effect and selecting efficient activities and companies. Correcting these failures is supposed to allow the restoration of the principle of neutrality.

In fact, it is absurd to conceive the working of the economy that would be based on the belief in the existence of market conditions guaranteeing stability, that is, the convergence toward a single or even optimal equilibrium. Presuming that government action may be neutral is an illusion that is based on the idea that disequilibria are solely attributed to the government and that the private world is a world of enduring harmony.

Economic policy cannot be neutral even when it claims to be so. This is particularly evident when the search for budget balance,

13 Euro area countries are responsible for their debt level with no recourse to a Central Bank that would have the power of being a lender of last resort. They are dependent on borrowings in foreign currencies, as were Asian and Latin American countries in the recent past.

following a drop in demand and tax revenues, leads to a situation where growth is *de facto*, penalized, deficit is widened and debt increased. This elementary lesson seems to have been forgotten in favor of the belief in the existence of an attractor solely determined by technologies, preferences and institutions rendering the value of the Keynesian expenditure multiplier equal to zero, whereas setting ourselves medium and long-term goals cannot be reduced to the definition of a pre-built future that would imply making the present necessarily transitory, if not anecdotal. Schumpeter criticized Keynes for regarding the short run phenomena as having nothing to do with the changes affecting capital stock and technology[14]. He was right. But he only reinforced Keynes' fundamental idea that the long term is nothing but the product of events that follow each other in the short term.

The role of public authorities is much broader and probably less ambitious than some economic theories claim or that policy makers who are inspired by it or whose actions are justified by it *a posteriori*. It is true that the choices of private actors respond to those of economic policy and change with them, making it problematic to meticulously regulate the economic situation. But it is also true that economic policy choices respond to the choices of private actors, since there is not, on the one hand, a world that is always in equilibrium (that of private actors), and, on the other hand, a world that should be forced into equilibrium (that of public actors). These two worlds, neither of which is in equilibrium, are in permanent interaction.

Developing a *long-term* vision means creating the conditions for coordination between multiple and independent actors *over time*, enabling them to acquire the information needed to commit, thus minimizing the risks associated with the irreversibility of their decisions and creating the necessary trust. It is illusory and dangerous to reduce this trust to a belief or message of neutrality, in any case impossible, from the government. Yet this is what theorists do by imagining that the newfound virtue of governments finally working

14 Schumpeter puts forward, in this case, a restrictive hypothesis that excludes what is the very essence of capitalist reality (Schumpeter 1954, p. 280n).

toward restoring public accounts is enough for private actors to start consuming and investing.

When a restrictive monetary policy, inspired by the concern for neutrality and dedicated to reducing inflationary pressures, constrains investment, as was the case in Europe in the 1990s, the fluctuations profile is modified. The recurring lack of adequate investment has the effect, cycle after cycle, of reducing the growth rate consistent with price stability and increasing unemployment rate, which does not accelerate inflation and is what some would call an equilibrium unemployment rate, where reduced investments *today* mean low production level *tomorrow* and consequently, a *more quickly* reached inflationary barrier.

A constraint imposed simultaneously on budget deficit nurtures and aggravates fluctuations. It induces a decline in public spending during a recession, amplifying deceleration and helping to reduce the duration of the subsequent recovery phase by weighing on public investment. It gives free rein to the possibility of lowering taxes without a corresponding decline in public spending during expansion periods, creating inflationary pressures that can in turn cause a tightening of monetary policy and premature turnaround of the economy. No effective constraint is introduced in the cycle's expansion phases, but recessions are amplified, which cannot be interpreted as deviations from a predetermined trend, but as a phase of an essentially endogenous evolution that budget constraint helps to shape[15].

The reality is that disequilibria are inevitable because of innovation and the uncertainty that characterizes it. They follow one another and can be amplified, dampened or compensated *over time* as a result of interaction between corporate behaviors and public policies. Instead of trying, in vain, to eradicate them *ab initio*, their occurrence should be accepted when they contribute to the step-by-step regulation of the economy.

15 These considerations reveal the danger of a doctrine that dissociates potential growth, which we do not know how it is determined, from cyclical fluctuations.

When inflation and trade deficit are the consequence of the choice to rebuild a destroyed economy or to innovate, meaning that demand arising from the payment of wages has no immediate counterpart with regard to supply of consumption goods, they appear as the condition of their future extinction and should not be systematically challenged. It is precisely because we endow ourselves with the means to invest at the required level that we will have, in the *long run*, a new production capacity that could meet, in the future, domestic or foreign demand and therefore, extinguish inflation and trade deficit. There is of course a condition for this: that the investments made are effectively productive investments.

When borrowers have to clear their own debts rather than invest or consume, there can be no question of seeking to reduce the public debt *instantly*, whereas the increase in such debt is the required transition to its extinction *in future*. It is not because private agents are under the obligation to clear their debts, that the State must do the same, quite the contrary. When public debt follows the clearing of private actors' debts that has become inevitable, private actors who are still heavily indebted are above all sensitive to their current income. They are forced to have a short-term vision. Budget austerity implemented to reduce public debt with the hope that these actors will spend more, anticipating to pay less tax in future, is illusory. The fall in current incomes will translate into a further drop in consumption, at the risk of reducing tax revenues and further increasing public debt. On the other hand, the State can borrow, using resources that had not been employed, provided that it carries out expenditures that are useful for growth. It offers an outlet for savings that have become in excess. Interest rates, far from increasing, can even decrease. Expenditure financed by public deficit, by maintaining or increasing the current income of private actors subject to a liquidity constraint due to excessively high debts, can enable the economy to avoid unemployment increasing and deflation while highly indebted private actors restore the equilibrium of their balance sheets. Increasing public debt does not reduce current consumption, while the subsequent repayment of this debt will reduce future consumption for the benefit of the economy over the entire period. In other words, an excess supply of goods and unemployment during a first period can be followed by excess demand and inflationary pressures in a second period. Therefore, increasing public spending today and correlatively increasing public debt will reduce excess supply and current unemployment, while taxing incomes after will subsequently reduce excess demand and inflationary pressures. Public deficit today may seem like the guarantee of future incomes likely to allow the recovery of taxes required for the reduction of public debt. The real question is knowing *how long* a budget deficit should be accepted before public spending can be, in turn, relayed by private spending. The temporal coherence of economic policy responds to the poor temporal distribution of uncorrected excess demand due to a lack of intertemporal price adjustment.

When public expenditure is solicited, its nature must be considered. If the accepted deficit is indeed transitory, it should be ensured that this expenditure induces private investments that enhance future productivity gains and growth. Moreover, we should less expect a rapid, if not immediate, multiplier effect through consumption, which is more likely to run against bottlenecks due to lack of capacity than an induction effect that takes time. Such an effect can only exist on two conditions: that public expenditure is complementary to future private investments[16] and that the latter benefit from patient capital.

6.6. The institutional challenge

The first globalization, that of the late 19th and early 20th Century, was in a context of persistence of the imperial form of government, with nations and their colonial empires confronting the Central Empires. A second globalization, that of the post 1945 period, was an orderly opening of trade, which witnessed the development of nation-states with recognized borders replacing the empires. The cooperative nature of the relations among the nations of the Western world was

16 The issue here is not that of instantaneous substitution between private and public expenditures and the eviction of one by another, but of complementarity *over time* between the two.

then affirmed at the time when it became a real solidarity space[17]. The third globalization, which took off in the 1980s, weakened the nation-states, dominated by the search for sudden and rapid mobility of resources at the risk of growing disorder instead of an institutional regulation guaranteeing control of the *long term*, which is commanded by reason.

The diversity of capitalisms, along with their borders, is thus theoretically challenged in favor of a largely imagined unique social order, even though it remains an opportunity as well as a necessity.

Rather than trying to force individuals to conform to rules that are supposed to ensure full competition, the central objective of the governments of different States should be to facilitate the development of various institutions, consistent with their history and culture, likely to foster innovation, learning, the reliability of commitments and ultimately the achievement of effective, equitable and sustainable results.

Therefore, one of the principles of a sound globalization should be to recognize the right of each country to safeguard its specific institutional choices and refuse to accept the imposition of a race to the lowest fiscal or social bidder, which has become the true meaning of the search for common institutions and is far from optimal.

Laws, regulations, conventions and customs promote rights and privileges, duties and obligations that form the basis of social order within which individuals build their social life and pursue their economic objectives. A totally inflexible base prevents any necessary adaptations in a changing world and would eventually be destroyed. A totally flexible base as imagined by some theorists, who see globalization as the means to achieving such a base, in no way

17 Gauchet (2017) talks of this period as that of the globalization of the nation-state, a concept that enables him to characterize the first steps of the European construction, the strategy of new industrialized countries that benefited from the opening of trade while maintaining the possibility of protection and the principles of a development assistance policy falling within national borders. This view is consistent with the approach backed by Rodrik (2011).

constitutes a social order but rather a source of instability. A *political* equilibrium must be found that respects the *diversity* of systems.

This equilibrium was found, after the Second World War, with the Bretton Woods agreements, whose virtue was to create the conditions for a gradual opening up of economies while leaving nation governments the freedom to manage their economic policies within the framework of their own institutional diversity by pursuing the double objective of economic efficiency and social justice[18]. It was broken in response to the geopolitical upheavals that occurred in the 1970s.

It is illusory to imagine restoring the lost cohesion by working toward the creation of a supranational monetary and financial government as some people propose at the European Union level, since this government would have no other function than to apply rules aimed at an imagined neutrality and that the States concerned would not have the means to maintain or rebuild their industrial development potential and pursue their solidarity objective.

Thus, the essential principle should be to seek a multilateral institutional system that is able not to maximize the volume of real trade and financial flows in the world but to allow nations to pursue their economic and social goals with their own institutional arrangements and whose guiding principle would be to ensure that the various actors fit into the *long term*, with one of the dimensions being the *slowness* and *gradualness* of the necessary adjustments. International trade agreements should, therefore, include safeguard clauses on the condition that they are subject to negotiated implementation procedures, with their purpose being to give actors the *time* to adapt and thus avoid unnecessary physical and human capital destruction. Such clauses would be seen not as violations of rules ensuring the proper working of markets but as a guarantee of the

18 This essential dimension of the Bretton Woods agreements is extensively documented by Rodrik (2011).

sustainability of international arrangements which foster an orderly liberalization and are compatible with democracy[19].

The acceptance and implementation of these arrangements would be an essential step toward the maintenance and geographical extension of national systems constituting social, tax and environmental laws meeting solidarity and efficiency objectives. The control of resulting capital and goods movements would encourage companies and governments to make long-term investments that enhance stability and development[20].

Conversely, forms of integration, which are encouraged by lobbies or individual interests, are far from being justified in terms of efficiency and equity, whether it be the role played by large companies that intend to unduly strengthen the protection of intellectual property rights in trade agreements, played by multinational firms that plan to prosecute States in special arbitral tribunals, and the role played by banks and other financial institutions that intend to prevent any effective control of capital movements. In any case, the only tangible result is to undermine public action whose *raison d'être* is, at the same time, the equity and sustainability of globalization. The damage is primarily inflicted to regulation mechanisms that States should possess[21].

The forms of integration chosen by the European Union do not meet the objective of reconciling this integration with the maintenance of a certain autonomy of member States. The outbreak of the sovereign debt crisis, which jeopardized the survival of the euro zone and the possibility of addressing it again in future, led to the formulation of proposals illustrating a conception of the working of the economy that remains essentially timeless. This concerns, on the

19 As we will see below, the issue involves reconciling globalization, regulation led by States and democratic choice.

20 The problem is to draw legal boundaries to dependence synonymous with stable rules applied to all, particularly with regard to social and environmental issues, the challenge being to exclude opportunistic and volatile investments that are necessarily short term (see Supiot 2010, pp. 109–113).

21 These points are developed by Rodrik (2018).

one hand, preventing national banks from financing public debts and thus breaking the vicious circle between public and bank debts, and, on the other hand, putting these public debts under the control of financial markets in order to encourage governments *at any time* to seek the balance of public accounts. Although technically complex, the contemplated rules are part of the idea that there exists an optimal and stable state. By doing so, a double deadlock arises, on the divergence of domestic situations and the time needed to address it, the opposite of the doctrine that governed the Bretton Woods agreements. There is great risk in seeing this divergence widening and nations isolating themselves in the name of a poorly understood competitiveness for lack of understanding why and how disequilibria interact with each other *over time*.

7

Liberalism Revisited

The decline in State sovereignty in the name of a vision of liberalism structured the dominant discourse on globalization. This institutional evolution is particularly significant at the level of the European Union, although the latter aims at federal sovereignty. Such evolution is an expression of the paradox of globalization, whereby, in the absence of a world government, trade globalization requires States intervention that is reduced to the application of intangible rules enacted by the doctrine at the expense of democracy and the arbitrations that this implies. There would be no alternative other than restoring national borders to safeguard the democratic principle to the detriment of trade expansion and growth, but also at the risk of populism and autocratic deviations.

Yet, the issue of sovereignty as well as that of liberalism cannot be easily addressed. There is an ongoing debate that leads to considering a possible alternative to the current discourse, which restores States in their prerogatives without it being necessary to renounce the benefits of globalization. Yet it is important to know what is at stake, namely the control of the long term.

This depends on the ability of actors to project into a sufficiently long future, which, far from being undermined by regulation, results from the extension of the decision makers' time horizon allowed by this regulation. The very nature of liberalism is questioned, depending on whether it is assimilated to laissez-faire or the need of public

Disorder and Public Concern Around Globalization,
First Edition. Mario Amendola and Jean-Luc Gaffard.

intervention is recognized. When any regulation is banned in principle, adaptations to changes in the environment are supposed to be instantaneous and above all optimal. When, on the contrary, the need for regulation is recognized, not only do disequilibria, errors and conflicts arise that make it necessary, but addressing it effectively is a long lasting task.

In this second hypothesis, liberty is not simply that attached to the opportunity to arbitrate between different possible choices at a specific moment in time, but becomes the liberty to preserve, if not to expand, the field of possibilities in future. It covers the sequence of successive choices. It characterizes liberal democracy whose specificity is to follow a conflicts and disequilibria resolution mode, which preserves it in a seemingly paradoxical manner, by excluding any shock therapy and prioritizing *slow* and *gradual* adjustments[1]. Therefore, instead of the common good being reduced to obtaining a social optimum whose definition is improbable[2], it becomes the product of institutional regulations likely to ensure a control of the long-term events required by change in a context of uncertainty.

7.1. Trust and regulation

Norms specific to the welfare state, which are difficult to challenge on the sole ground of social justice, are today questioned because of the supposedly perverse role they would play with regard to the regulation of economic activity and growth[3]. Mistrust or the feeling of

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1 Smith argues that the two most useful qualities include that which allows us to discern the consequences of all our actions and to foresee the advantage or detriment likely to result from them, and that which makes it possible to abstain from present pleasure or to endure present pain in order to obtain a greater pleasure or to avoid a greater pain in the future. He concludes that "in the union of those two qualities consists the virtue of prudence, of all the virtues that which is most useful to the individual" (Smith 1759, IV, 2, pp. 271–272).

2 This social optimum, compatible with a very strong inequality, leads those who implicitly refer to it to appeal to the theory of the trickle-down of wealth from the rich to the poor.

3 This is the perspective backed by Phelps (2013) as well as by Aghion *et al*. (2010).

living in a society where the spirit of citizenship is weak would lead individuals to demand a market regulation that is detrimental to competition and growth. Conversely trust would make the same demand for irrelevant regulation. In other words, trust and regulation would be substitutes. The welfare state would be meaningful only in the absence of trust on the part of individuals. In addition, we would be dealing with a vicious circle: regulation would reduce trust and in return, the low level of trust would lead to more demand for regulation. Culture would mold institutions that would retroact on culture. Mistrust would then be a source of disorder that would have to be compensated unless it could be remedied through education. This second solution is deemed far more preferable especially as it is assumed that regulation promotes corruption.

This vision of the world is, at the least, reductive. Trust would relate to a cultural practice and have nothing to do with how people coordinate with each other. Or, more precisely, an assumed state of *spontaneous* trust would ensure the coherence of behaviors and absence of conflict. However, without having to imagine the possibility of opportunistic behaviors or cheating, it must be admitted that there is lack of information about others' behavior, which undermines everyone's trust in their own calculations as much as it fuels mistrust with regard to others. All of which means that trust, starting with that of companies, is dependent on appropriate forms of communication that are part of market regulation, that is, accepting connections between actors, often considered as market imperfections. These forms are diverse, and reflect sometimes strong cultural diversities, but what they have in common is the broadening of the time horizon of individuals by making future actions more predictable. It would, therefore, be absurd to stick to a simplistic opposition between regulated and unregulated societies. Unregulated societies are equally unstable as fully planned societies, and the middle as well as virtuous way is that of regulated societies.

The social contract is an essential dimension of trust. It is based on the common acceptance of norms that cannot express an absolute truth, but which are lines of action whose merits are recognized by all. Inequalities may exist, but on the condition that their nature is such that they do not weaken the social contract and do not reduce actors' time horizons. This will be the case, in particular, when a real social mobility remains possible. This mobility is, of course, related to the capabilities and motivations of individuals, but it also depends on the availability of goods and services provided by public authorities. The degradation of the latter, which would be the result of deregulation and State withdrawal, would be to the detriment of social mobility and at the same time contribute to accentuate inequalities. Structural reforms enhancing dualism in the labor market and breakdown of social cohesion can only generate mistrust, starting with that of hitherto protected workers who run the risk of falling into precariousness.

If norms are at the heart of social interaction and if no actor can be considered benevolent or omniscient, then a separation and reciprocal control of powers is necessary. They are both the expression of a necessary form of mistrust that does not relate to individual feelings but reflects a social requirement, a government mode and therefore a mode of regulation[4].

7.2. Classical and bastardized liberalism

The particularity of the liberal doctrine is recognizing humans as they are, with their passions and interests, and to assert that, thanks to what some stress as the positive consequences of trade, it becomes possible to avoid the vagaries of power that lie in the vices and passions of those who govern. It is the development of exchanges between free and independent individuals and the recognized effectiveness of coordination mechanisms by the market that allow this liberty. The market then seems to be a substitute for the social contract. In this perspective, statesmen are above all called upon to

4 "Democratic" mistrust is embodied in the emergence of powers of supervision, prevention or judgment disseminated into society that support legal democratic institutions without replacing them. It corresponds to a control but also negotiation requirement, coming from the civil society, enhanced by the fact that its members have to face increased risks and insecurity at all levels, starting with that of the economy (see Rosanvallon 2006).

comply with quasi-physical laws that govern the economy and society, instead of doing what they want, according to their will or desires. Concerned about the public good, they must ensure a precision adjustment designed in such a way as to avoid too many and sudden setbacks[5].

However, while appropriate institutions and rules limit the arbitrariness of political power, they also limit the individual's scope of action. Arbitrariness is the result of the laws of economics. Despotism is that of economics experts who would succeed in convincing policy makers to apply the norms that they lay down without discussion. The economy would then really dominate politics, less in the sense that the market dictates its law than in the sense that presumed laws of economics become intangible rules of action[6].

The dilemma between liberty and intervention seems to find its solution in the principle of economic rules of reason to which everyone would have to conform. But the adoption of such rules, when it expresses an axiomatic vision of the working of society, empties individuals' decision-making autonomy of any real content and hence the democratic ideal. This loss of autonomy is ignored by economists who think that it has only political or sociological significance, meaning that the result of individual actions is consistent with maximizing individual and collective well-being. Such is the essence of utilitarianism: it matters little to economists who adhere to this doctrine that rules may conflict with individual liberty if they create more utility and happiness for many. It is not certain that utilitarian calculus is efficient and that the role of individual liberty in

5 The meeting of passions and interests, of economic expansion and political progress is at the heart of liberal doctrines along with debates opposing them to each other (see Hirschman 1977).

6 "The modern economy, its complex interdependence and growth constitute so delicate a mechanism that the *grands coups d'autorité* of despotic government become impossible. If it is true that the economy must be deferred to, then there is a case not only for constraining the imprudent actions of the prince but for repressing those of the people, for limiting participation, in short, for crushing anything that could be interpreted by some economist-king as a threat to the proper functioning of the 'delicate watch'" (Hirschman 1977, p. 112).

wealth creation, particularly the liberty to make mistakes, should be overlooked. Conflicts of interest persist and liberty is at the heart of the process for resolving them. From this perspective, it constitutes a factor of economic efficiency. The relationship between the economy and policy makers is modified. While the defense of liberty joined with the defense of rules results in the praising of enlightened despots, the defense of liberty joined with the recognition of conflict, confrontation and trade-off gives meaning to the democratic choice and discretionary intervention[7].

Contrary to a widespread view, liberalism does not oppose intervention. Classical liberalism cannot be assimilated to laissez-faire and to the belief in the natural harmony of individual interests.

Smith, at the dawn of the industrial revolution, intended to understand the springs of the emerging new society. He breaks with the mercantilist tradition and attributed global enrichment to the pursuit of individual interests. Yet, a closer look reveals that he is not an advocate of laissez-faire. He makes the principle of sympathy the guide for individual behavior, a principle which he neither confuses with benevolence or altruism, nor with egoism, which means that everyone behaves as others expect them to behave. In doing so, he underscores that a human being's relationship with him- or herself is always mediated by others. Smith does not attribute the benefits of individual efforts to the exercise of a "natural liberty" that goes hand in hand with the "natural goodness of Man" and the "natural harmony of interests", but to well constituted and necessarily evolving social institutions[8]. In the pure economic field, he bases wealth creation on the interaction between the division of labor and market extension,

7 "A nation that demands from its government nothing but the maintenance of order is already a slave in the bottom of its heart; it is the slave of its wellbeing, and the man who is to chain it can arrive on the scene" (Tocqueville 1835, quoted by Hirschman 1977, p. 112).

8 In *The Theory of Moral Sentiments* (1790), Smith puts it himself that "Man, according to the Stoics, ought to regard himself, not as something separated and detached, but as a citizen of the world, a member of the vast commonwealth of nature and to the interest of this great community, he ought at all times to be willing that his own little interest should be sacrificed" (cited by Sen 1991, p. 24).

which can obviously not be reduced to the free interaction of markets in a world where any real institutions have disappeared. Referring to nations rather than individuals is by no means coincidental, as Smith questions above all how individuals manage to live together, in other words coordination conditions which, by definition, are not based only on the behavior of isolated and independent individuals.

Hayek, whom the proponents of bastardized liberalism claim to follow, refers to Smith, Locke, Hume or Burke and distances himself from the idea that every law is an evil or that every law is an infraction of liberty. His theory was never that of an integral laissez-faire. He admits that individual efforts could be effectively channeled to beneficial social purposes because of the evolution of institutions constituted to allow the expression of opposing interests and emergence of advantages arising from compromises[9]. The conceptual difficulty is that, according to his perspective, these institutions are supposed to result from a selection that is the product of the immemorial action of individuals free from all obstacles. He overlooks the breakthrough of the formation of the State of law whose mediation is essential to the exercise of liberty as well as the durability of power relations[10]. In this way, he opens the way, certainly despite himself, for the competition of laws defined in various territory, favoring the lowest fiscal and social bidder, which is the new figure of laissez-faire.

Walras' liberalism is not based on the promotion of laissez-faire, contrary to what a quick reading of his theory of general economic

9 Hayek, in denouncing the misdeeds of central planning takes the time to emphasize how "It is important not to confuse opposition against this kind of planning with a dogmatic laissez-faire attitude. The liberal argument is in favour of making the best possible use of the forces of competition as a means of co-ordinating human efforts, not an argument for leaving things just as they are. It is based on the conviction that where effective competition can be created, it is a better way of guiding individual efforts than any other" and adds that the functioning of competition requires adequate organisation of certain institutions like money, markets, and channels of information-some of which can never be adequately provided by private enterprise" (Hayek 1944, pp. 37–39).

10 See on this point Egé (1992, 2016).

equilibrium might suggest. He intends to define a state of the market – indefinite free competition – which refers to an ideal society in which the State and money are absent. But, outside of this purely virtual situation with respect to which comparison has no meaning, he knows how to establish the real conditions of evolution[11]. He even defends liberal socialism, denounces those who intend to suppress the State to replace it with private enterprises as well as those willing to impose, despotically, the scientific rules of free competition, without considering the necessary time for adaptation.

Finally, Keynes on his part intends to address the doctrine of laissez-faire and not liberalism[12]. His reflections and proposals for State intervention cannot be interpreted as opposition to the foundations of market economy. They are oriented toward the search for technical improvements of modern capitalism through collective action. Intervention is based on discretionary choices intended to correct the weaknesses of global regulation, attributable to market failures. The challenge, based on an essentially liberal reference, remains not to disturb the allocation of resources as determined by individual choices, but to effectively combine regulation and incentives, State sovereignty and the freedom of individual choice, although the conditions for such combination are never really explained.

Confusion arises from the latter imprecision. Modern economic theory does not escape it. This theory proposes an essentially

11 "The market is like a lake agitated by the wind, where the water is incessantly seeking its level without ever reaching it. But whereas there are days when the surface of a lake is almost smooth, there never is a day when the effective demand for products and services equals their effective supply and the selling price of products equals the cost of the productive services used in making them. The diversion of productive services from enterprises that are losing money to profitable enterprises takes place in several ways, the most important through credit operations, but at best these ways are slow. […] For just as a lake is, at times, stirred to its very depths by a storm, so also the market is sometimes thrown into violent confusion by crises, which are sudden and general disturbances of equilibrium" (Walras 1874, p. 580).

12 This is particularly explicit in a text devoted to a historical analysis of the principle of laissez-faire in which Keynes emphasizes the harmony of opposites that this principle feeds, including conservative individualism and egalitarian socialism (Keynes 1926).

axiomatic representation of market economies, which has the apparent merit of making a clear division between liberty and intervention, unambiguously defining individuals' areas of choice and of being, in principle, opposed to the doctrine of laissez-faire. But it most often reduces intervention to the application of intangible rules. Individual sovereignty only makes sense where it obeys the founding axioms of rules and presumed optimal behaviors. There is no place for conflict or controversy, in short for discussion between free individuals. The recognized sovereignty is that of representative individuals who are supposed to know the delicate rules of the working of markets. Intervention is justified by the gap between imperfect competition equilibrium and social optimum. It consists of applying specific prescriptions intended to fill this gap. Rules enacted and imposed by authorities replace the failing market.

According to this perspective, reference should be made to the economist-king (and omniscient), the expert who has become an enlightened despot. Passions would be extinct. Individual interests and collective interest would be safeguarded. Classical liberalism concedes here to neo-liberalism that would be more appropriate to call bastardized liberalism. The State does not disappear, but mutates. The liberal State gives way to the corporate or managerial State that *mimics* a failing market when its functions are not simply captured by predators claiming the free market.

The world thus imagined, but also in one way or another imposed, is based on the will of the emancipation of individual interests of any collective constraint. Such an emancipation has nothing to do with the separation between civil society and the State, which is inefficient and proceeds from the liquidation of the political framework if not the legal framework. All that is left are individuals defined by their rights and interests[13].

13 "The new liberalism – and this is where it becomes radical – is a discourse of contestation of the possibility, for policy makers, to impose any limit whatsoever on the economic initiatives of individuals and, more generally, on the expression of their rights. Practically it generally stops before, but it is intrinsically open to the perspective of the possibility for individuals to develop their action in a post-political

7.3. The State and the common good

There will always be two ways of considering public action: defining it with regard to an optimum that it may or may not meet, or setting it the goal of managing inevitable conflicts. The first view denies *contradiction*, and the second recognizes it as unavoidable. The economic policy debate is a perfect illustration. There is some sort of connivance between those who think they can define an economic policy perfectly fulfilling objectives defined by public authorities and those who deny the effectiveness of this economic policy to rely instead on the interplay of private economic interests when this is not, simultaneously, under the control of reputed independent or impartial experts or on the intervention of rating agencies charged with judging the quality of private and public borrowers. They all believe in the existence of an ideal world. The only difference between them lies in the configuration of this world and in the designation of omniscient and impartial figure: the civil servant or consumer, shareholder and worker, whereas none of them is as such. Contrary to these reductive visions, the lack of information and conflicts of interest, inherent in societal life, require arbitrations that are the responsibility of public authorities.

Seeking the common good involves the construction of institutions aimed at reconciling individual and general interest and thus requires the recognition of the complementary and non-exclusive roles of the State and markets. The figure of individuals free from any attachment, in fact from any relationship of subordination to the most powerful can only develop under the reign of the Rule of Law and that is the essential contribution to the common good[14].

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space that eludes the regulation of national States as far as possible, outside what are minimally government functions of protecting property and goods" (Gauchet, 2016, p. 327). This discourse was developed in the past by Friedman (1962) and is taken up today by Phelps (2013) for whom the efficiency of modern society presupposes liberating individuals from any social constraint.

14 "Where the State disappears or becomes corrupt, the illusion of individual sovereignty dissipates: allegiance must be pledged to somebody more powerful to access a minimum of security and liberty" (Supiot 2010, p. 107).

This formula, on which the agreement should be easily made, takes on a different connotation with the assertion that markets need regulation and the State competition and incentives. This means that the State must respond to market failures, but while being organized in such a way as to mimic it as though it were efficient. In any way, what we witness is an elimination of the State within its own specificity. We expect the State to be a paragon of virtue, the virtue that would make it possible to achieve a free market if it could exist. The objective is, of course, to undermine corporatist interests but also and above all to be emancipated from the injunctions of the voter who is poorly informed on economics if not malicious, hence the resorting to independent administrative authorities rather than governments[15]. Consumers maintain their advantage over voters in that they are provided with rational expectations. Here, the common good is nothing other than the reflection of a general market equilibrium and its corresponding social optimum, that is, of an imaginary world[16].

This particular common good concept is alien to Keynes for a simple reason: he does not believe in the existence and especially the stability of anything like a full competition system. Thus, for him the State has a specific function, which is a regulatory function distinctly different from the resource allocation function. He does not believe in the possibility of establishing a tight frontier between these two functions, but recognizes this regulation requirement that implies that the State should know how to take advantage of public action to undermine the deleterious effects of distortions in the private sector, for example, by accepting an increase in public debt to offset the effects of the clearing of private actors' debt when it has become inevitable. The nation-state thus conceived is the architect of the common good that constitutes stability, and is at the same time an area of solidarity, a condition for this stability. It can and must, moreover, belong to a global system of recognition of the common good implying that the gains obtained in international trade should not only

15 Regarding this analysis, see especially Tirole (2016).

16 Walras and Pareto are, naturally, associated with this vision of the world. It is worth recalling that Walras knew how to distinguish social from pure economy.

be mutual, but shared equally among all nations, far from imperial solitude.

The role of the State, in its various interventions, is to guarantee the *control of the long term* by enabling, what may seem paradoxical, the slowness necessary for gestation of future events. This complex and multiple role falls within the *democratic time*. Economic analysis is, therefore, not aimed at establishing rules or institutions by justifying their optimal nature. Its purpose is to lay down the terms of *political arbitrations* likely to enhance structural changes by maintaining a relatively regular macroeconomic evolution. These arbitrations can only be the result of a *debate* with the challenge of distinguishing between the role of markets and that of the State. Public and critical debate is essential to public policy, if only because it is impossible to determine the role and scope of the market in advance using a beautiful, abstract and general formula, and generally whether the latter aims to subject any activity to the market law or to withdraw, on the contrary, any prerogative from such activity.

The Rule of Law requires the representation of citizens, and that of different or even divergent interests. The stepping back of a representative system in favor of a competent administration or independent administrative authorities might imply the risk of a withdrawal of the Rule of Law itself.

The independence of administrative authorities is an illusion. These authorities are the modern expression of an administrative State as opposed to a State of justice. General will is certainly neither infallible nor always detectable. It can be monopolized by pressure groups. However, it cannot be expressed through administrative authorities who end up becoming spokespersons for pressure groups, including those that are ideological in nature. With such authorities applying rules imagined by economists and intended to reflect undisputed and undeniable knowledge, economic power tries to take precedence over political power and circumvent it. Withdrawal of the welfare state is the expression of this return to the past. No doubt government agencies are needed. However, they should not escape a form of State supervision, whether executive, legislative or judicial power, since they are established not to impose a pseudo-scientific truth, but to make arbitrations between divergent objectives or interests.

When the State or its divisions obey specific rules assumed to be those of the efficient market, they become the forerunners of private interests. Global stability is no longer really on the agenda. Political power is once again subject to economic power, whereas the principle of the Rule of Law lies in the separation of the two.

When, on the contrary, the State lays down general and abstract rules, this should be done with the objective of creating the conditions for a fair arbitration of conflicts of interest inherent in societal life. It then performs a function of *mediation* essential to the accomplishment of the common good with macroeconomic regulation being one of the aspects. In general, there is no market that can work without mediators. Companies, financiers and public authorities are the mediators. The State has the political power to establish the conditions for implementing these mediations, notably by being the architect of company, financial, social, tax and budgetary law[17].

7.4. Liberal democracy

Democracy has ambiguous relations with liberalism, which come from the difficulty they both find in recognizing their role in politics. Reducing democracy to a requirement of equality and making political bodies the guarantors of such equality, which becomes a single objective, can lead to forms of denial of individual rights. It contradicts the essence of liberalism, including the exercise of individual liberty and thereby denies the existence of conflicts. Sovereignty of the people or general will imposes decisions assumed

17 The general issue implicitly raised here is that of the articulation between the State and civil society, which is not limited to individuals assumed to be fully autonomous, but includes different organizations that are places of cooperation though not necessarily intentional.

to reflect general interest, which is then confused with the interest of each.

Liberal democracy is a special blend that breaks with the double ambiguity of democracy and liberalism by not reducing the former to the requirement of equality or the latter to the requirement of individual liberty. It is not the government of the best or most learned. Liberal democracy is the means of expression and conciliation of divergent interests at the same time as the process for defining justice that transcends individual interests. It favors compromise as well as *slow* and *gradual* adjustments that are a guarantee of coherence and sustainability of society and the economy. It satisfies a need if not a requirement for *moderation*. The life of a democracy is by no means made of confrontation with an ideal model: it is first an exploration of a problem to be solved. Before being a mode of government, it is an *institutionalization of the conflict* between the just and unjust, between the legitimate and illegitimate, without this being obscured by the recourse to expertise. Attempting to subject decisions solely to the rationality of individual calculation, and private rate of return alone, means contravening the democratic dynamic that feeds on the confrontation of interests.

Conflicts cannot be reduced to behaviors composed of cheating or opportunism, even if recognizing their existence is desirable: they are inherent in the inevitably unexpected consequences of an evolution made of creative destruction. They go hand in hand with a legitimate feeling of distrust, if not suspicion, in individuals confronted with the effects of uncertainty and irreversibility. If there can and must be mistrust with regard to policy makers, this is because it is never reasonable to entrust the solution of problems to a single authority whatever. “Liberal” mistrust is embodied in the separation of powers.

Making mistrust a foundation of political institutions conceived as a place of expression and resolution of conflicts cannot be confused with the idea that it would be possible to reduce the feeling of mistrust by restricting the political choice space. The attempt to put the choice of reputed impartial experts at the place of the choice of policies, along with the demand for total transparency of the information that would be provided by "well-designed" institutions, contributes to such confusion[18].

Denying the existence of conflicts is not only absurd, but can keep on exacerbating them thus leading to extreme situations. It is up to the State to establish conflict resolution methods, and to conceive the rules of arbitration between opposing interests or objectives. But it is not just any State. This State can only be a State that substitutes the settlement of disputes by the Rule of Law to their settlement solely by force. Political power constituted as such can only be dissociated from economic power. This is what makes the difference between the Rule of Law and seigniorial domination. If we go further, the Rule of Law opposes a doctrine that subordinates public authorities' action to intangible economic rules that would act much as rules of law while they aim to establish a wrongly assumed optimum order where any conflict would be prohibited: what the neoliberal trend of the 1980s and 1990s tried to institute. This State enables the existence of civil society that is subordinate to it, meaning that it guarantees individuals the freedom to contract but also to contribute in laying down common rules, notably through the judges[19]. Finally, this State is a social State

18 "This transparency [...] describes a project with perfect visibility, a total absence of friction, which is just another way to refer to the utopia of the market. Supervision and rating powers explicitly propose in this case to bring about the reign of the invisible hand, which is the complete opposite of any political idea. But the apolitical nature of the economy goes further. It also corresponds to the fact that we can imagine companies and markets that are increasingly regulated, controlled and monitored, without the political issue in economics, that of the distribution of wealth, ever being raised" (Rosanvallon 2006, pp. 292–293).

19 The conditions giving rise to the Rule of Law in England and France, respectively, are illuminating with regard to its nature (Barret-Kriegel 1979, pp. 106–141). In England, the common law was the law unified by royal judges dispatched by the monarch. These judges were the missionaries of state unification. Centralization was accomplished by law under the Crown, which emerged as the original source of law. Judges certainly played a very significant role, but by being from the start "a bearing wall of the State" (ibid., p. 116). The result was that the English constitution allowed judges to exercise legislative functions and legislators to exercise judicial functions that powers were not strictly separated but overlap. The power vested in judges contributed to legal centralization far from the idea that rules emanate from a selection made by individual choices alone. In France, centralization was carried out later

including a labor law that recognizes the existence of conflicts of interest between employers and employees and at the same time fosters the means of responding to them by enhancing the role of representation, action and collective bargaining in order to reconcile equity and efficiency.

This Rule of Law is today threatened by the absolute domination of the market and the return to an authoritarian, if not despotic, form of State. The inadequately regulated use of economic liberties, as has been the case in recent years, can only lead to a weakening of its ability to regulate the economic activity and also a strengthening of administrative centralization.

7.5. The challenge of globalization

The challenge of globalization lies in the difficulty of reconciling trade expansion, safeguard of States in their regulatory functions and political democracy. In the abstract, globalization would go hand in hand with democracy provided that States are eliminated and replaced by a world government. Globalization could go along with the safeguard of States on condition that the latter choose to apply rules that replace democratic debate and choice, meaning *de facto* the abandoning of borders when they delimit the scope and independent powers of regulation[20]. Finally, States could continue to exist within a democratic context provided that globalization is renounced. There is no certainty that either of these choices is ultimately viable and it is

through administrative channels of royal commissioners and Intendants of Finance against the personnel of justice that had become an intermediate body rebellious to the central authority. It took the form of government centralization. It passed on from public to private law in the process of formation of the Rule of Law and by the preserved primacy of the administrative State, considered as an unfinished Rule of Law (incomplete), thereby explaining the excessive influence of the administration in the establishment of rules. From this historical comparison, it is obvious that the importance given to judges and, consequently, to the dialogue of norms should not obscure the need for legal centralization, which is the guarantee of individual liberty.

20 The elimination of borders “ruins the ability of States to establish a rule of law in their territory. It fosters the proliferation of tax and social havens and thus undermines the foundations of national solidarity” (Supiot 2010, p. 98, see also Rodrik 2011).

likely that the required arbitration is not really decided as the proposed partition might suggest. This is, in any case, what is suggested by the institutional compromise reached, in the past, at Bretton Woods, which at the end was able to reconcile the requirement of international openness with the largely conserved sovereignty of States and acceptance by the latter of the rules of democracy.

Globalization reduced to an extension of market relations is a denial of the role of States whose margins of action are gradually transformed to the detriment of cooperation and the common good. Market rules replace regulatory public interventions. They are assumed to elude the democratic debate that has become worthless. Every government must comply with market requirements. The attractiveness of its territory and increase in its trade surpluses become its sole objective. To this end, it practices a restrictive monetary policy, decreases corporate taxes, makes the labor market more flexible, initiates deregulation and privatization, renounces all industrial policies and comes to free trade agreements that can go as far as giving enterprises the power to impose social and environmental rules through the mode of trade disputes resolution. The conditions for an economic war are in place, even though some, dreaming of the effects of "soft trade", thought they were abolishing borders by creating the famous common rules.

The choice to prioritize rules relative to the democratic debate in favor of globalization is far from guaranteeing success in terms of growth and well-being. Disequilibria continue to exist and can increase. They are first perceived at the level of States and can cause interstate as well as internal social conflicts that render the arbitration carried out unstable.

Globalization that goes hand in hand with the maintenance of State sovereignty, but in the absence of democracy, has two aspects: on the one hand, States of developed countries (mainly European) that comply with the rules of neo-liberalism and on the other hand, States of emerging countries which, on the contrary, retain their intervention capacity but impose a strategy favoring investments and exports rather than domestic consumption, because of a political authoritarianism that contains the people's demands. However, it should be obvious that the success of this State strategy is based on the existence of sufficient external demand especially for consumer goods, which is itself subject to the existence of a large middle class in developed countries that meet the requirement of the democratic game.

The success of globalization can only result from a compromise that maintains the regulatory capacity of States as well as interstate agreements or associations of States such as the European Union. Although it is inevitable that performance gaps appear along with trade imbalances, they should however be contained. This is the price of the viability of the global economy. It is likely that it requires the development of a relative equality of situations, not only within each country, but also between countries.

Some people imagine that companies could and should assume the social and environmental responsibilities that States would be compelled to abandon because of lack of financial resources[21]. The agreed discourse is based on the idea that companies are the only source of wealth creation and welfare gains through the paying of wages and taxes, as if the regulatory actions of the State were no longer important and it would have the legal capacity to take on such responsibilities[22]. Yet, the proclamation of corporate social and environmental responsibility cannot be a substitute for intermediation that establishes the responsibility of each company, today diluted because of the absence of a clear legal framework with an organization of business having increasingly unclear boundaries. The

21 "Large companies claim to be organized in mini-States, driven by other concerns than that of enriching their shareholders. But without a clearly identifiable manager, without an organization which may require accountability and without an intermediation to whom to account to, such responsibility is obviously not relevant. Corporate social responsibility is a symptom of an economic ideology crisis, rather than a remedy likely to avert the social disruptions caused by globalization" (Supiot 2010, pp. 147–148).

22 This discourse is not new. Friedman was already contesting its merits by insisting that entrusting the company with a social responsibility would mean recognizing the company's ability to levy taxes and set the expenses that such taxes would make possible to realize, though this is a constitutional prerogative of the Rule of Law (see Friedman 1970).

reality is that the ability of companies to sustain their strategy in the long term and respond to social challenges depends on the ability of States to impose the forms of governance and rules of law that permit it.

In fact, the impending danger is twofold. Not only does unbridled globalization weaken the regulatory capacity of States, but it also encourages States to compete in terms of legal, social or environmental norms or to re-establish customs barriers to protect themselves. States that maintain real power proceed or can proceed as such, be it China or the United States. Thus a European Union may be disintegrated precisely because of the choice it has made to stay closer to the dreamed globalization.

7.6. An open and equitable society

Economic liberalism cannot be confused with the doctrine of a mythical market economy of which any political dimension is prohibited. On the contrary, it only takes on its full meaning if the State remedies market failures. It is inseparable from the democratic requirement, which is none other than the requirement to solve the inevitable conflicts of objectives and interests by means of political debate and arbitration. Ignorance of this political dimension of liberalism at the level of international relations presents the risk of a failure of globalization when national political choices, rather than helping to reduce disequilibria, will consist of deferring the effects on other countries and exacerbate rather than circumscribe conflicts. Although globalization is not responsible for the ills that beset the various countries, it might not be viable for long periods because of lack of political means by the community of States to resolve the conflicts it causes and to promote equity.

Carrying out arbitrations and resolving conflicts is only really possible in a world where relative equality prevails between individuals, a guarantor of social cohesion. It is this social cohesion that creates the conditions for a sustained wealth creation. It also strengthens current generations concerned about the wellbeing of future generations. Liberal society is clearly made of identity and conflict of interest. There is an identity of interest because social cooperation gives everyone a better life than what they would have by seeking to live only through their personal efforts. There is a conflict of interest because people are not indifferent to the way in which the products of their collaboration are distributed. Arbitrations, that are made under the veil of ignorance implying that the authors of just principles are unaware of their position in future society, do not necessarily lead to immediate mutual gains. They produce winners and losers, but they should not drive anyone toward abandoning the constitutive rules of social cooperation[23].

Thus the veil of ignorance, which makes the attitude of solidarity credible, is torn apart when society is divided into categories each of which become aware of their specificity. The disappearance of a large middle class resulting from the application of intangible rules intended to mimic the perfect market and dismantling of the welfare state, particularly its social insurance and transfer mechanisms, produces this division, explains the refusal of solidarity and makes the economy more unstable at the risk of interrupting growth or, more exactly, development with growth being only a quantitative measure, which is questionable. It could signal the fate of a globalization accompanied by an increased social fragmentation, a withdrawal of everyone into their own ethnic and religious community or simply community of interest, jeopardizing justice as equity and democracy.

The social philosophy at the heart of Keynes' message was based on the conviction that unemployment and the widening of inequalities were the main scourges of the society he had before him. The purpose of social protection, as then implemented, was not only to address equity concerns, but also to enhance the efficiency of market

23 In this society described by Rawls, "the principles of justice are chosen behind a veil of ignorance. This ensures that no one is advantaged or disadvantaged in the choice of principles by the outcome of natural chance or the contingency of social circumstances". "The principles of justice are agreed to in an initial situation that is fair" (Rawls 1971, p. 11). "If the original position is to yield agreements that are just, the parties must be fairly situated and treated equally as moral persons" (Rawls 1971, p. 122).

economies by evening out fluctuations that could become chaotic. The new social philosophy, resulting from political choices referring to bastardized liberalism, is the exact opposite. Inequalities become a normal characteristic of a society that is supposed to give priority to innovation. The level of social protection is indexed to that of activity under the assumption that a market economy freed of all state constraints would be inherently stable. This assumption ignores the very nature of market economies, which is to create novelty. It also ignores that novelty is a source of disorder and, finally, that this disorder cannot be controlled without public intervention.

Conclusion

Es el mejor de los buenos
Quien sabe que en esta vida
Todo es cuestión de medida

Antonio Machado
Campos de Castilla, Proverbio y Cantares (1912)

Curiously, both economists who are confident in the effectiveness of freed markets and sociologists who forecast an impending end to capitalism seem to share a similar vision of the future world. For both, new technologies would create conditions for the existence of a society composed of free and anonymous individuals, who are at the same time consumers and producers. In this virtual world, consumers representing standard economic theory would be as comfortable with it as independent producers dispensed from wage chains. Central currency and large banks would disappear in favor of local currencies and participatory financing, a curious reminiscence of the monetary and financial neutrality assumed or claimed by this standard theory.

Only the issue of growth would remain open to discussion. Some think that it is time to abandon it and that in any case its sources have dried up, since the new technological revolution does not have the same virtues as those that preceded it. Others believe in a new less turbulent growth, one that is more friendly to people and environment, made possible by the properties of this digital economy. In either case, history has come to an end and technology would dictate its law. The fate of each is drawn. A predetermined and sacred future would

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command the present. It would be impossible to derogate from it rendering any contrary attempt by public authorities unnecessary or worthless. Although of opposite sides, some seem to be in communion today, wishing for an extinction of the power of money and decline of the State, as did the monetarists and Marxists before them.

Political and social transformations are undeniable. It would be a mistake, however, to judge it in light of these popular beliefs that seem to transcend old cleavages that overlook the unfolding of events, ignore multiple and uncertain transitions, as if it were possible to substitute an already fully identified state of the world with the existing state.

Wage employment would give way to the proliferation of start-ups enhancing individual initiative. As a matter of fact, jobs in the area of new entrepreneurship are often more volatile, less productive, less well paid and less protected than in the rest of the economy. More surely, stable employment concedes to precarious employment.

Small businesses, promoting new technologies, would be the main source of growth and job creation. In fact, growth mostly comes from established businesses and proceeds from the improvement of existing product varieties rather than radical innovations. Statistically, small businesses do not create more jobs than larger ones. Only new businesses do so. More importantly, in the years following their creation, cohorts of new enterprises lose more jobs than they create, as market exits surpass job creation by those that survive.

Thus, the multiplication of start-ups, most of which disappear, is less characteristic of the transition than the formation of very large new companies, particularly in the digital area, starting with those that act as platforms, usually intermediaries, in final goods markets. This concentration, which reflects the classical phenomenon of economies of scale, naturally fosters possible diversions rather than value creation.

The decline in employment would make a drastic reduction in working hours inevitable, but also the introduction of a universal income that would supplement if not replace social benefits.

Institutionalized solidarity peculiar to the welfare state, envisaged in a spirit of social justice and macroeconomic regulation, concedes to the wide gap between recourse by the wealthiest for their protection to private institutions and the development of a limited assistantship to the poorest in a context of job polarization, qualifications and remunerations. Social protection, designed to smooth fluctuations, gives way to assistance to the poorest, which is intended to be conditioned by individual responsibility and subjected to the requirement of balance of public accounts making them pro-cyclical.

Individuals would regain their autonomy following the withdrawal of the State and corporatist institutions. They withdraw into ethnic or religious communities or those simply based on their belonging to a class of income and wealth. These individuals would become individual entrepreneurs as well as consumers. In fact, many of them are likely to experience alternation between employment and unemployment periods, will have to hold less skilled jobs or receive decreased permanent income, both of which are difficult to offset by the reduction in the price of certain services or gains from the shared utilization of their real estate or other assets.

Modern metropolises would stimulate growth. In effect, wealthy rich regions increasingly refuse to pay for poor regions, the gap widens between cities fully involved in trade globalization and marginalized peripheral urban areas, and metropolises become the place of risk-free real estate investments carried out by the wealthiest to the detriment of excluded populations and productive investments.

Policy makers are henceforth obliged to comply with the rules that prevent them from yielding to electoral calculations. They are abandoning general programs in favor of community clientelism. The idealized market seems to benefit from it. The capture of rents, made possible by the fragmentation of society and transformation of demand structures, prevails to the detriment of the implementation of productive investments.

The peculiarity of ultimate libertarian utopias, of which we presented an overview above, is ignoring the weight of the passage of time, imagining an *immediately* accessible new world on condition of complying with the requirements of an *essentially* technological novelty that would control benevolent behaviors and allow to proceed without any intermediation. The specificity of these utopias includes obscuring the disorders that arise and spread, not in an old world that no longer exists, but in the real world, that of disorders inherent in the change that reason commands, and not thinking being able to eliminate but to control them. For decision makers, those in charge of coordination, far from projecting into a previously written idealized future, this involves controlling fluctuations perceptible in the short term to prevent chaos from occurring in the long term.

The digital revolution, like the industrial revolutions that preceded it, is the product of the institutions that govern such revolution and which guarantee or not the effective management of distortions that result from the ruptures caused. It makes it possible to expand the range of goods and services available to the entire population, and to develop a dual, slow growth economy dominated by rent seekers whose goal is to capture the value created by others with the consequence of negatively influencing the amount of wealth created. Everything will depend on the institutional changes that will certainly continue. A selection, which would result in the elimination of institutional and organizational forms to ensure the mastery of time, far from allowing the restoration of a perfect market, will have no other effect than the emergence of groups with conflicting interests.

The major novelty regards the increasingly assertive *perception* of a finite world because of the irreversible nature of the exploitation of non-renewable natural resources and pollutant emissions. This physical world is, indeed, a world without borders and its finiteness requires a global approach. However, the question cannot simply be posed in terms of growth or stagnation, which implies having only its physical dimension in perspective. Moreover, it cannot be raised by sticking to the implementation of a global price system that would regulate resource extraction and pollutant emission flows and by imagining that this system can be optimal. If there is to be an energy or more generally ecological transition, aimed at saving resource stocks, such transition runs against traditional obstacles including the costs and period of building new productive capacities and also the difficulties in formulating new environment-friendly demands. It is dependent on the decision-making horizon of actors as is any transition and thus, institutional and organizational forms that end up prevailing. The *sine qua non* condition for a successful transition is that all actors should fit into the long term, which means not sacrificing the present to the future, but minimizing present disorders, minimizing regrets in the immediate term more than maximizing profits, in order to ensure the future viability of the economy and society. The most urgent requirement is to create institutional bases that set limits preventing predatory behaviors and reestablishing the sense of measure in the use of resources.

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