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**ABOUT THE ROLE AND EFFICIENCY OF MARKETS :**

*History, Theory and Policy in the Light of the Nineties*

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**A B S T R A C T**

The Eighties have experienced a drastic shift towards the belief in self adjusting free market mechanisms. This paper explains this change by the very success of the fordist growth regime, which in the Seventies ended in quasi-stagnation, financial instability and mass unemployment. The free market ideology has been used as a weapon or a rationale for dissolving or circumventing most of the institutional forms inherited from World War II. Paradoxically enough, at this very moment, modern micro theories recurrently demonstrate that markets may not be efficient when the quality of products is uncertain, if increasing returns to scale prevail, when most contingent future markets are missing or if transactions are totally decentralized within a monetary economy. The basic features of existing economies therefore call for coordinating mechanisms, alternatives to pure markets: vertical integration, networks, teams, associations, business ethics, public regulations and finally State interventions.

**A PROPOS DU ROLE DES MARCHES DANS L'HISTOIRE, LA  
THEORIE ET LES POLITIQUES DES ANNEES 90**

Robert BOYER

**R E S U M E**

Les années quatre-vingts ont enregistré un retour marqué à la croyance du caractère auto-équilibrant des mécanismes de marchés. Les stratégies de retour au marché ont été utilisées comme outils en vue de recomposer ou détruire nombre de formes institutionnelles héritées de l'après seconde guerre mondiale. L'article souligne que, paradoxalement, les recherches sur l'équilibre général et la microéconomie montrent que les marchés ne peuvent être efficaces lorsque la qualité des produits est incertaine, qu'existent des rendements d'échelle croissants, si manquent des marchés à terme et contingents, ou encore si les transactions sont décentralisées grâce à la monnaie. En conséquence, dans les économies concrètes, les marchés sont insérés dans une série d'arrangements institutionnels qui peuvent leur donner efficacité, ou à défaut viabilité : intégration verticale, réseaux, associations, communautés, coût — de bonne conduite, réglementations et interventions publiques.

**Mots clés** : Marché - Capitalisme - Théorie du marché - Système économique - Institutions du capitalisme

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## **I. A RETURN TO FREE MARKET MECHANISMS: THE HOPE OF THE EIGHTIES, THE LIKELY DISILLUSION OF THE NINETIES.**

The conceptions about the self regulating mechanisms associated with markets have undergone the equivalent of a long wave. During the Great Depression of the Thirties, a majority of economists, along with Charles Pigou and Jacques Rueff, have been criticizing the institutional impediments to a free functioning of markets. Only a minority has on the contrary argued that it was in the very nature of pure and perfect markets possibly to trigger large instabilities and or stagnation. After World War II the Keynesian heterodoxy has become the core of a significant revolution in the conception of the respective roles which State and market should have in the long run social and economic reproduction of capitalism: adequate public regulations and a fine tuning in monetary and fiscal policies could promote a quasi full-employment, along a fast and steady growth path. Basically the market mechanisms had to be tamed by a series of legislation, regulations, collective agreements, built-in stabilizers in the tax system or in the reaction functions of the Central Bank. As Joan Robinson has recurrently pointed out, markets were efficient to allocate scarce resources between alternative goals, via the formation of relative prices. But one major drawback was that pure market mechanisms were in general unable to provide full-employment and macroeconomic stability. In fact during the Fifties and Sixties this view was widely shared by almost all governments, including the most conservative ones. Has not Richard Nixon declared, "Now we are all Keynesians".

### **1. A complete reversal of the Keynesian revolution**

In the Seventies and still more the Eighties, we have experienced a drastic move away from this conception. It is presently a common ideology that markets are basically the most efficient methods for organizing modern societies, whereas public

interventions generally do more harm than benefit, given the intrinsic limitations to any bureaucracy, specially in the public sector. Seemingly, such a change has been justified by a large amount of empirical evidence. First, the Keynesian compromise, when prolonged during the last two decades, has not delivered the same results as during the Fifties: for example, most national reflations – at least outside the United States - have bankrupted into inflation, external deficit, capital flight and finally have been reversed into austerity policies. The French experience of a Keynesian reflation in one country is a good example of the corresponding disillusion (R. Boyer, 1987). Secondly, the related failures seem closely related to a deepening in the internationalization process, as regards trade, investment, finance and of course money. Consequently, each firm, region or nation has now to compete in the international arena and no longer upon the stabilized oligopolistic national markets, which used to rule during the Fifties and the Sixties. The competition upon the world markets is perceived as a strong constraint upon national compromises and forms of organization. In some extreme cases, the troubles or even the quasi bankruptcy of some national champions has clearly exhibited the leading role attributed to market mechanisms, which are currently selecting the more efficient firms and productive organizations. Thus, most governments have deregulated their national financial and labour markets, precisely in order to respond more efficiently to the changing patterns and recurrent disturbances associated with the globalization of most economic activities. The third factor in explaining the revival in the faith in the market is the adoption of free market ideology and recipes by many governments and policy makers. The dynamism of financial innovations (M. Aglietta, 1991), and the progressive transition from one productive regime to another (B. Coriat, 1991) have exacerbated the reference to pure market mechanisms: some regulators who had lost many of their objectives and instruments have embraced the most extremist "laissez-faire" strategies.

Moreover, two major structural changes have strengthened the omnipotence attributed to market mechanisms. The new step in European integration associated with

the single market to be implemented by the end of 1992, as well as the free trade agreement between United States and Canada have clearly made competition in the product and financial markets a corner stone in the building of a quasi continental integration. Again, each firm, region or even nation has to compete over a larger economic space than previously, in such a way that markets seem to lead political and institutional transformations, at odds with what was observed in the Bretton-Woods system, during the Keynesian era (R. Kuttner, 1991). Consequently, the market is seemingly triumphing all across developed capitalist economy. Such a largely unexpected success would have been partial, had not the Eastern bloc economies totally collapsed at the end of the Eighties. In conventional terminology, market economies correspond to a complex institutional setting in which the markets are supposed to be the leading force, contrary to what was observed in the so-called socialist or controlled economies. The eagerness of the new democratic governments to embrace the project of a fast transition towards market mechanisms has made the triumph of free marketers overwhelming in the early Nineties.

## **2. The Eighties: the market as a Phoenix.**

Consequently, the market is now considered by a majority of managers and politicians as the coordinating mechanism "par excellence". Some economists, more cautious, might recognize some minor or significant limits to markets but still consider that it is, along with democracy for political life, the least imperfect coordinating mechanism for economic activity in societies featuring a large complexity and decentralization. Basically the present paper will not deny the impressive record of market capitalism, not so much on the grounds of static efficiency but for its achievements in terms of dynamic efficiency. In fact, the major achievement of markets is not so much the invisible hand process due to Adam Smith and formalized by modern general equilibrium theory, but the powerful stimulus to innovation, technological and

institutional change which a market economy triggers and enhances from capitalists. In this system, even radical or potentially disturbing social struggles can finally exert a positive role in the long run, by channeling the restructuring of basic institutions and organizations. Eastern European economies have collapsed, not so much due to cumulative imbalances between supply and demand but due to their inability to deliver the access of the whole population to mass consumption (R. Boyer, 1993). In turn this problem is related to the inhibition by planning and political institutions of major innovations in the mass production of consumer durables and agricultural efficiency. That is to say that market economies have to be assessed in accordance with their ability to promote mass production and consumption, i.e. a cumulative increase in standards of living. In fact, the polysemy of the vocable "market" helps in explaining this extraordinary comeback during the last fifteen years. The basic message of the present paper is to challenge the omnipotency of this coordinating mechanism within contemporary societies, which exhibit indeed a whole spectrum of alternative mechanisms. The apology for a return to free market might derive from a misperception or an erroneous interpretation of the structural changes which have been taking place all over the Seventies and Eighties. The prognosis is quite different: the market mechanisms will find a significant but not exclusive role within the emerging new "régulation" modes. The twenty first century will probably experience a genuine social and political embeddedness of markets within networks, associations, local communities, and renewed State interventions, not to mention the large coordination task fulfilled by hierarchy and vertical integration. In order to argue in favor of this seemingly unconventional view, the paper will capitalize upon the most recent advances in modern microtheory: market failures are rather frequent and can for adequate monitoring (J. Stiglitz and Mathewson ed., 1986; J. Stiglitz, 1987; J.P. Benassy, 1982; G. Akerlof, 1984). It will use too some literature about the functioning of markets in historical perspective.

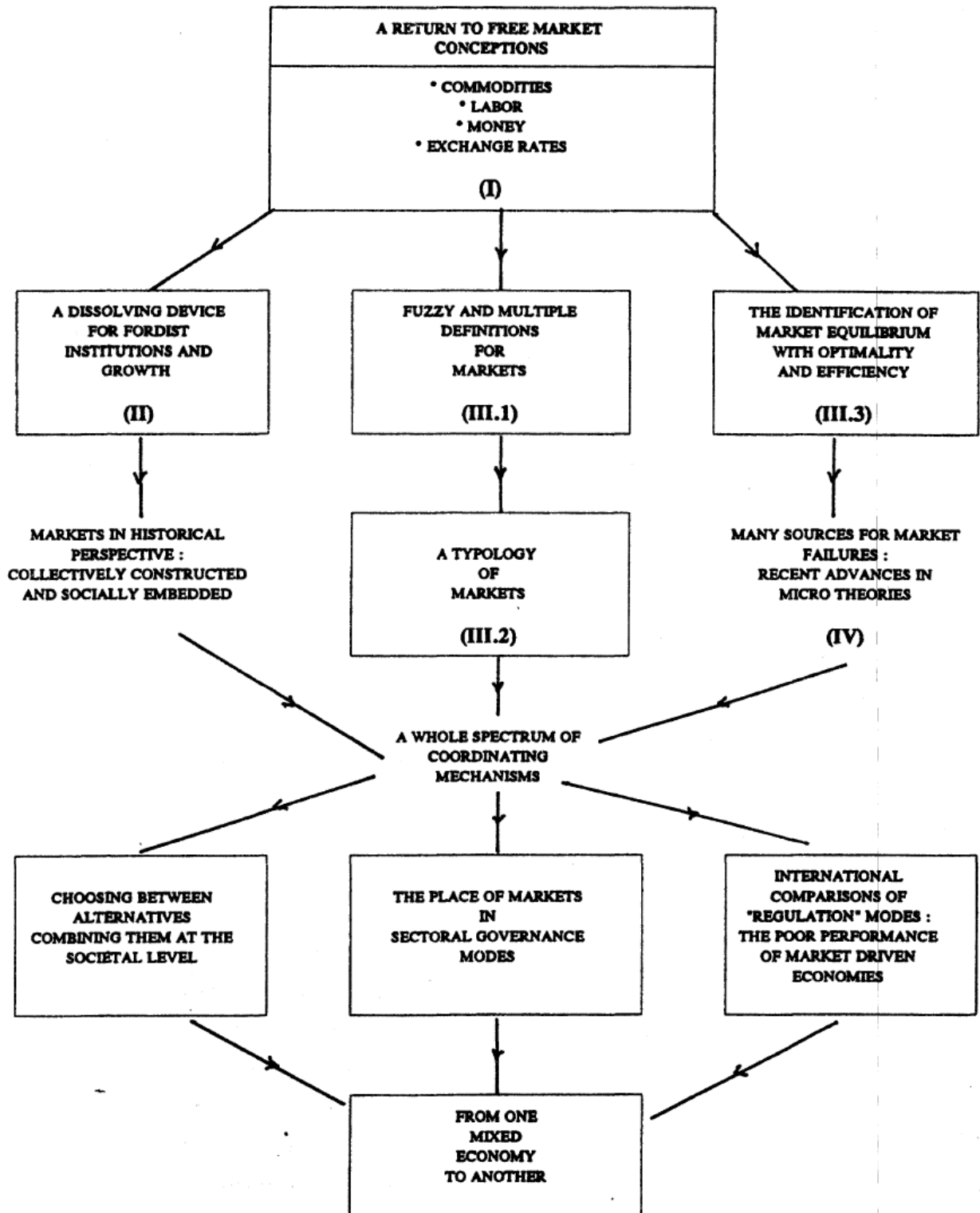


### 3. The Twenty First century: a new embeddedness of markets...?

Let us present the architecture of the paper in a nutshell (Diagram 1). It is first necessary to assess the impact of the so-called return to free markets, and make some distinctions between the generality of the related statements, with the more limited impact, even for the most harsh conservative counter revolutions. Such a world idea move has to be explained. First the market has probably been used as a dissolving device or in some extreme case as a weapon for destroying some of the building compromises of the fordist growth regime (II). Another explanation relates to pure semantics: the word "market" is so widely used with so varied meanings that everybody can find his(her) benefit in referring to such an appealing and intuitive coordinating mechanism. At the other extreme, some academic researches in terms of general equilibrium theory have provided an elegant and rigorous demonstration about the superiority of the market over any alternative coordination principle (III). Many anecdotes about the poor functioning of controlled economies still reinforce this spontaneous adhesion to the belief that markets are self adjusting, and if not, they are at least more efficient than any central planning authority.

But other historical and most recent theoretical arguments contradict such a belief. On the one hand, the emergence of markets has been a very long and contradictory process, most of the time associated with structural crises and instabilities. Still more, at the very micro level, the only few examples of markets implementing a pure and perfect competition suggest that their viability is up to a complex and tricky nexus of public regulations or collective organizations (commodity markets, Wall Street, the markets for futures,...). In every case, the market is the end product of a social and political construction. On the other hand, and surprisingly enough, a careful reading of the theory of markets shows how numerous and precise are the hypotheses necessary to guarantee that any market equilibrium is an optimum. If the quality of the good is uncertain and information

Diagram 1 – The argument of the paper in a nutshell



asymmetric, if the technology derives from a learning by doing and using process or from network externalities, if the auctioneer is replaced by a complete decentralization of transactions in a monetary economy, if only few contingent markets or insurance mechanisms can be implemented or/and when the commitment of workers is related to the fulfilment of a fairness criterium, i.e. if the equity principle partially explains static and dynamic efficiency, then the superiority of the market may totally collapse (C. Wolf, 1990). There might be no equilibrium or too many or unstable ones and more generally the market can be Pareto inferior to alternative organizations provided by networks, associations or even vertically integrated firms. Modern theoreticians therefore strongly disagree with the rather optimistic views propagated by the more vocal advocates of free markets: when the economy becomes complex, the reliance on pure market mechanisms raises as many problems as it solves.

It would be the task of another paper to deal with the logical consequences of this theoretical analysis. During the Thirties and Forties, these market failures were considered to call for public intervention and in most of the cases, State regulations or monitoring of macroeconomic activity. Nowadays, economists and political scientists have converged towards a much more balanced view: government failures might be as preoccupying as market failures. The comparison is no more between an optimum reached by the free functioning of markets and the existing equilibrium, but the task is to compare the pro and con of alternative second best arrangements. Still more, one originality of the present book has to be stressed: one elegant solution out of the dilemma between inefficient bureaucrats on one side, unstable or unfair markets on the other, is to recognize the existence of a quasi continuum of coordinating mechanisms. They can be selected at the micro level, given the structural and institutional external conditions and are to be combined at the economy wide level.

Some international comparisons about sectoral governance modes allow to give some flesh and substance to this rather theoretical and abstract reasoning (R. Hollingsworth, Ph. Schmitter and W. Streeck, 1993; R. Boyer, 1991). Basically, it allows to check whether pure markets are actually the leading coordinating mechanisms when the quality of the product is well defined, the suppliers and demanders are numerous enough to prevent any oligopolistic cartel, or/and a business association defines by consensus a sophisticated set of rules in order to assure that the public market not be destroyed by opportunistic economic agents. On the contrary, when the quality is hard to control ex ante, if technical change is rapid and a monopsony (or monopoly) prevail...or when the commitment of workers is crucial for the quality of the product, joint-ventures, horizontal or vertical networks, quasi vertical integration or even hierarchy can provide better results in the very long run.

It is then possible to assess more rigorously the impact of the conservative thrust towards more market mechanisms. Contrary to a widely held belief, globalization does not mean the transformation of all nation state into a mere set of interdependent markets without any other alternative organizational form. First, even national financial systems differ considerably in the early Nineties, whereas the law of one unique price, whatever the localization provided that transportation and exchange costs are taken into account, is largely invalid in contemporary world. After all, all the frictions about the new international trade agreements and the implementation of free trade zones in Europe and North America do show that the world is far from operating as a single market. The example of the wage labour nexus is enlightening indeed: in international comparison, the more market oriented industrial relations are not the more successful ones. Quite on the contrary, the apparently more holistic societies, be they social democratic or the micro corporatist ones, fare far better in international market competition. Thus, free marketers might have confused the means with the objectives: coordinating mechanisms implementing more solidaristic or cooperative values between

managers, workers, subcontractors and banks are more efficient in the competition on the goods markets; on the contrary, individualistic and conflict prone societies which rely to markets to monitor the capital labour relations experience very poor results in the arena of international competition. In my view the quid pro quo is complete in the contemporary world. Conservative economists resemble a physicist who would confuse the X-ray machine with the negative it delivers: the building of trust, loyalty and quality is the engine of competitiveness and consequently of growth, whereas the market only compares on the product and financial markets.

Consequently the paper challenges the present conventional wisdom: beneath the seemingly powerful return to free market mechanisms, most developed countries experience the complex and uncertain transition from one regime of mixed economy towards another one, more adapted to the new configuration of the international arena, the specificity of organizational and technological innovations and, of course, the new balance between various social groups. Perhaps here too much can be learned from Karl Polanyi's prophetic book The Origins of Our Time. By anthropological and historical analyses, he has convincingly shown that most markets for commodities call for highly sophisticated institutional arrangements, if their efficiency and self adjusting property are to be obtained in really existing economies. Moreover, some key fictitious commodities such as money, labour and nature will never be regulated by pure market mechanisms, since their supply is not set according to a maximization principle in response to changing relative prices. In fact, money is the prerequisite for any decentralized economy not the unintended result of a free banking principle. Similarly labour cannot be disentangled from human activity and life itself, in such a way that labour markets will never exhibit typical self clearing properties. Since nature is not an economic actor, certainly not a maximizing one with rational expectations, no market will ever solve the long run biological survival of mankind and the ecological reproduction of health.

Mutatis mutandis, it is not unlikely that contemporary societies experience a similar but much more complex transition to that observed during the interwar period: whereas the majority of the analysts, the policy makers and journalists expect (and work for!) the triumph of the market, the issue really at stake is the institutional transition and organizational innovations which would finally give a significant but ancillary role to markets, provided they are embedded into a complete set of social relations providing trust, loyalty and commitment, i.e. the basic ingredients under which markets might be self equilibrating and efficient.

## **II. MARKET AS A DISSOLVING DEVICE OF POST WORLD WAR II INSTITUTIONAL FORMS.**

According to the prophecy of Karl Polanyi, the catastrophic evolutions of the interwar period have been prevented not by a drastic extension of market regulation but on the contrary via ambitious institutional reforms designed to tame its unwanted and sometimes dangerous consequences. On the one hand, final and intermediate product markets have been organized according to oligopolistic competition, cartel formation at the national or international levels, as well as sophisticated public regulations. Consequently price wars have been replaced by gentlemen's agreements between large firms, which adopted mark-up price formation and cosmetic product differentiation. On the other hand, two of the fictitious commodities have been protected from any excess of competition coming from market pressures. Firstly, money and credit had a too major role in macroeconomic equilibrium to be left to the influence of myopic expectations...or the free banking principle: the Keynesian revolution had taught almost everybody that a stable monetary regime was a public good to be provided and taken in charge by a central bank along with complex regulations imposed to commercial banks and the financial institutions (M. Aglietta, A. Brender and V. Coudert, 1990). Second, wage formation was too serious to be left to the vagaries of pure market forces. Implicit to post-WWII order, a genuine capital labour compromise used to codify the respective

benefits drawn from the implementation of fordism: the managers were free to organize production and labour processes, whereas workers benefited from an implicit (or explicit) indexation of nominal wage with respect to consumer prices, along with productivity sharing schemes (R. Boyer, 1990b). All this set of coordinating mechanisms has been severely challenged during the last two decades. Such a "counter-revolution" with respect to the Keynesian break-through is so general and universal that it must have strong underlying reasons, of course linked to the economic crisis, but which are ideological and political as well.

### **1. The Seventies and the Eighties: a general thrust towards more market driven adjustments.**

For the sake of simplicity, let us examine how the core Fordist institutional forms have been transforming themselves after the two oil shocks, in the context of fiercer international competition, financial instability and globalization. The following analyses briefly summarize the major findings of "régulation" approach (M. Aglietta, 1982; R. Boyer, 1990a) and concern only the larger O.E.C.D. countries, the Eastern economies being excluded for the time being. In a nutshell, virtually all the organizational forms which were at the origin of the unprecedented growth from the Fifties to the early Seventies have been challenged (Table 1).

- Price competition has become again a conventional method for solving competitive struggles among large multinational firms, but between small and medium sized firms too. Due to first unexpected and then recurring excess capacities, most of the firms have tried to sell abroad all the production which could not be absorbed by the home market due to austerity policies in public spending and wage moderation. Given the huge fixed costs associated with most process and high-tech industries, some sectors (e.g. electronic components, air transportation, telecommunication) have experienced

**TABLE 1 : DURING THE 80's, MARKET FORCES HAVE PERVADED MOST OF THE BASIC FORDIST INSTITUTIONAL FORMS**

| PERIODS  | INTERWAR PERIOD  | 1945-1967(73)<br>THE GOLDEN AGE   | THE 70's AND 80's<br>UNCERTAIN<br>RESTRUCTURING   |
|--|--|---|---|
| <b>1. Wage labour nexus</b><br>• Industrial relations<br><br>• Wage formation<br><br>• Welfare payment | • Low institutionalisation, weak unions' bargaining power<br><br>• Highly decentralized and rather competitive<br><br>• Embryonic                  | • Rather large institutionalized unions and collective bargaining<br><br>• More administered than market determined<br><br>• A significant part of indirect wage is institutionalized | • Decentralization of bargaining, decline of most unions<br><br>• More competitive pressures and market driven wages<br><br>• Rationalization or scaling down ; some trends towards private insurance |
| <b>2. Competition among firms</b><br>• On product market<br><br>• On financial market                  | • Strong, price wars during the Great Depression<br><br>• Large concentration, but prices are still rather competitive                             | • Rather weak, competition by the perceived quality<br><br>• Large concentration at the national level, prices are oligopolistic  | • Fiercer due to international competition and technical change<br><br>• Large restructuring at the world level, price wars are back again  |
| <b>3. Monetary regime</b><br>• Credit versus securities<br><br>• Financial regulations                 | • Incomplete pure credit system, major role of stocks market and speculation<br><br>• Emerging but very partial                                    | • Institutionalisation of pure credit systems, few speculation<br><br>• Highly regulated and protected banks  | • Securitization, globalisation of finance speculation<br><br>• Significant financial deregulations   |
| <b>4. State interventions</b><br>• Public services<br><br>• State owned firms<br><br>• Welfare         | • Except for defense, quite limited<br><br>• Very few, except after the crisis of 1929<br><br>• Emerging but generally not institutionalized       | • Developed for health, education, transportation<br><br>• Rather significant in some European countries<br><br>• Institutionalized to varying degrees across countries               | • Austerity and rationalization Policies<br><br>• Important privatisation in some countries<br><br>• Some reorganization and slimming down, more insurance less welfare                               |
| <b>5. International regime</b><br>• Trade<br><br>• Finance<br><br>• Capital                            | • Rather open and then protectionism and currency wars<br><br>• Highly active financial flows<br><br>• Limited extent of foreign direct investment | • Progressive liberalization of trade<br><br>• Rather limited <u>private</u> financial flows<br><br>• Significant, mainly American, direct investment                                 | • In spite of protectionist temptations, on going internationalization<br><br>• Explosion of short run private capital flows, financial globalisation<br><br>• Important surge of foreign investment  |

Source : Synthetic table derived from a series of historical studies in term of "régulation".



the equivalent of the price wars of the Thirties. A renewal of market competition seems to have destabilized even very powerful but sleepy monopolies. At a more theoretical level, modern analyses about contestable markets tend to suggest that pure competition should and will prevail as soon as free entry is possible without experiencing too high sunk costs. The ideal of pure and perfect competition has replaced that of a gentle and organized competition.

- The labour flexibility debate has put a strong emphasis upon the need for more competition upon the labour market, especially concerning wage formation. Many reports from international organizations such as I.M.F., World Bank, or O.E.C.D. have urged unions, managers and policy makers to design much more flexible pay systems, labour contracts with variable hours or easy termination (O.E.C.D., 1985). According to this interpretation, if labour markets are not self equilibrating, and this was clearly the case in the mid-Eighties since unemployment had been rising permanently in Europe, then excessive union monopolies (A. Lindbeck and D.J. Snower, 1986), too complex public regulations and a high unemployment benefit were clearly responsible for such an inefficient state. Were the labour market truly competitive, full employment would be obtained at each moment of time. For example M.L. Weitzman (1982; 1985) has suggested that profit sharing schemes would promote a fast return to full-employment, by reducing labour marginal cost and thus inducing the firms to hire more workers. Even if these diagnoses have been challenged, they have been very influential in the design of social deregulation policies, not only within conservative strategies but for some social democratic governments, too (R. Boyer, 1988). The ideal of many firms is now to grant only short run labour contracts, with flexible wages and easily varied hours worked, in other terms to make labour markets function as conventional commodity markets do.

- Numerous financial innovations have similarly significantly transformed the national and international regimes. The banking system inherited from the New Deal and post WWII legislation used to imply highly administered interest rates and credit rationing, in such a manner that the money market was more a convenient metaphor for presenting the IS-LM model, elaborated by John Hicks to interpret The General Theory, than an actual market coordinating money supply and demand. The major imbalances generated by the surge of inflation during the Sixties and Early Seventies, the financial shocks associated to the rise of oil prices and finally the emerging competition between banks to capture deposits and grant credits have promoted the invention of genuine and sophisticated financial instruments. Consequently, the competition over money and financial markets has become more effective and structured than the strategies of the firms and even the households, searching for the best returns for their liquidities. Thus, central bankers have been losing a large part of their control over credit, which manifests itself via the rapid obsolescence of most of the monetary aggregates, designed to monitor monetary supply. Again, competition on the financial market is back and recalls some of the episodes of the interwar, even if most of the New Deal regulations have not been removed. This explains why the December 1987 Wall Street crash has not triggered any cumulative depression (R. Boyer, 1988). Nevertheless the ideal of financial authorities is still to debalkanize the previously fragmented credit institutions and organize a global market implementing more competition if not a pure and perfect one. In some extreme cases, the advocates of free banking even consider that any central bank is no longer necessary and should be replaced by the removal of any barrier to entry (M. Aglietta, 1991). In the terminology of Karl Polanyi this expresses the belief in the possibility of "One big self-regulating market..." for products, labour and money.
- Governments have pursued significant deregulation policies just to curb or interrupt the apparent adverse trends associated with larger and larger income transfers by the

State. A major conservative counter-revolution has taken place during the last two decades. Whereas post-WWII State was allowed to be interventionist in order to promote the emergence of fordism, to enhance the implementation of welfare systems and finally in order to control the level of economic activity by fine tuning, the rising difficulties have favored a drastic shift towards much more "laissez-faire" strategies. First, nationalized firms in the productive sector should be privatized (and actually have been in United Kingdom and in France?, under the view that by nature private managers are more competent than any bureaucrat. Secondly, public welfare system have been seen by a vocal fraction of the businessmen as an incentive to laziness, inefficiency and low saving rates. Thus, from a conceptual point of view, the principle of solidarity has been challenged and replaced by the objective of private insurance: let free individuals choose upon the insurance market the type of income security they want to afford. Thirdly, State should remove most of the regulations which prevent firms, workers and bankers from concluding mutually beneficial arrangements: basically any limitation to price formation is detrimental to the welfare of the society. Finally, according to the neo-Austrian school (F. von Hayek, 1976), and the rational expectation theorists (R. Lucas, 1984), individual economic agents are assumed to be better informed than distant and probably not so competent bureaucrats. Any attempt to influence the level of macroeconomic activity will be circumvented by clever agents who know that in the future the government will have to raise taxes in order to pay for present public deficit spending or that any excess in money supply results in inflation, without any long term impact upon employment. As far as ideology and theory are concerned, Keynes is dead and Doctor Pangloss has revived! Let the market guide and coordinate the difficult choices that nobody is able to enlighten and discuss.

- The current international regime is a strange mix of a decaying Bretton-Woods system with more and more market adjustments upon the currency markets. The

same reversal has taken place in the international area as for domestic affairs (R. Kuttner, 1991). Following the interwar wide distrust about the ability of markets to make compatible contradictory national monetary and economic policies, the Bretton-Woods agreement implemented a largely institutional process of adjustment, with a limited scope for market logic. The exchange rates were fixed and set by national authorities in accordance with principles shared by the international community. The progressive demise of this international regime (for a general analysis see S.D. Krasner, 1983; R. O. Keohane, 1984; C.D. Campbell and W.R. Dougan, 1986; J.N. Rosenan and E.O. Czempiel, 1992) has brought back competitive mechanisms in interest rate and exchange rate formation. Consequently, the floating exchange rates which were supposed to deliver smooth adjustments and high predictability have generated totally opposite outcomes: large swings in the relative position of the Dollar, the Yen and the Deutschmark and repeated surprises even for the most sophisticated analysts. Since the speculation is now the leading motive for buying or selling a currency, the financial markets have lost their previous built-in stability (N. Kaldor, 1939; A. Orlean, 1990). Nevertheless in the absence of any alternative and more coherent international financial regime, the market mechanism is still assumed to be the only coordinating device available to make various and contrasted national policies more or less congruent. Surprisingly enough, the poor macroeconomic and financial outcomes observed since 1971 have not seriously affected the optimism of most actors about the omnipotence of pure market mechanisms.

Clearly, the apology of the visible hand due to Adam Smith --which was labelled by Karl Polanyi "the satanic mill"-- is affecting all the institutional forms which generated the fordist growth regime. Of course, the previous analysis is quite general and mainly apply to conservative governments such those of Reagan and Thatcher. One could find societies in which such a move towards market has been much more a lip

service and a tribute to the orthodoxy of the Eighties than an actual strategy: Japan and Germany have scarcely deregulated their financial, labour and product markets. On the contrary, France and Sweden, with socialist or social democratic governments, have been engaged in significant revision of their financial institutions, as well as their labour market. Such a diffusion of the belief in market mechanisms and its actual implementation deserves an explanation.

## **2. The very consequences of the success of the post-world war II institutions.**

This brief reference to non-conservative experiences probably implies that such an universal move is not a purely ideological phenomenon. Of course, given the present strong interdependencies among nation-states, political fashions and business fads are circulating, and running into obsolescence faster and faster. Furthermore, the revival of free market strategies might be explained by the prominence of United States in world political and economic affairs. But the interpretation is not sufficient and has to be complemented by deeper underlying.

- Cumulative inflation and external disequilibria have caused the fordist regime and its Keynesian policies to an halt. The Fifties and the early Sixties were not devoid of any political, economic or social problem (local wars, business cycles, social protests), but the related imbalances could be handled dealt within the monopolist "régulation" mode. At the end of the Sixties, such a self correcting property weakened: inflation speeds up at various rates across nations, which challenges the stability of exchange rates; in the United States, a series of converging factors induces a significant productivity slow-down, which sharpens conflicts about income distribution. Consequently, the followers such as Europe and Japan progressively catch up with American technology and organization: a steady reduction in the surplus and then the cumulative deficit of American trade balance are associated with the emergence of

strong challengers, whose external surplus allows a recurrent appreciation of their currencies. The Pax Americana, i.e. the international system in which the stabilization of the home economy by United States, simultaneously provided liquidity and stability to the international system, is therefore threatened. At the end of the 1969-1973 boom, most economies operate near full-employment, with a strong bargaining power for workers and their unions, themselves challenged by antisystemic movements. The two oil shocks have been exacerbating these emerging problems: inflation rates are so high that the financial community fears a global destabilization of the credit system; the polarization of external deficits and surplus is sharpened. In a sense, it is the very stabilization of effective demand by the fordist institutional forms which explains the original structural crisis: absence of any cumulative depression but creeping inflation.

- Economic policies are at bay, when facing these unprecedented challenges. Initially, most governments try to continue the previous Keynesian orthodoxy. Does not the Chirac government decide in 1974 on a fully fledged reflation, whereas reinforcing job protection and taxing profit in order to curb an excessive investment (considered as one cause for inflation)? The same experience took place in United Kingdom under a labour government. Both of them had to completely reverse these policies and implement wage controls and money supply restrictive targets. But the major distrust with respect to the previous confidence in stabilization policies comes between the two oil shocks, when a joint reflation by major O.E.C.D. countries resulted in more inflation, without any clear reduction in unemployment rates, unprecedented since the interwar Great Depression. Before any change in government resulting from the polls, the authorities had to change completely their economic policies. If Keynesian reflation does not work any more, then the monetarists, influenced by Milton Friedman are probably right. Inflation is always and everywhere a monetary phenomenon. Governments and central banks are

fundamentally destabilizing an otherwise stable market economy. Consequently, at the end of the Seventies, a new political and economic orthodoxy emerges with two pillars: on the one hand, the government should interfere in a minimalist way via the statement and commitment to stable and non-discretionary monetary rules; on the other hand, if deregulated, markets are self equilibrating and efficient in allocating scarce resources to alternative uses. Thus, "laissez faire" ideology and policy have been embarrassed not only for their own merits, but largely due to the repeated failures of the existing "régulation" mode to propel the economies back to high and stable growth.

- A shift in the bargaining power of business has consequently taken place and somehow allowed this counter-revolution, causing the surprise and the disarray of remaining Keynesian economists and social democratic oriented politicians. In fact, the permanence of high employment level --at least in Europe-- had considerably weakened the position of workers within the firm and on the labour market. The financial losses of core fordist industries, the threat exerted by foreign competition, the drastic reorganization of the productive processes allowed by technological innovations linked to the informational revolution, the rather general decline of union density in the private sector, all these factors push union leaders and individual workers to accept significant concessions in their wage, work intensity or fringe benefits. In the bargaining process, these reductions into the fordist wage labour nexus are the more easily accepted, the more external to the firm appear to be the financial and economic constraints upon management. The reference to the logic of the market is therefore used by the managers and governments in order to significantly revise the core compromises inherited from WWII. The imperative of competitiveness is still reinforced by the continental integration which takes place in Europe and is emerging in North America. This in turn explains a reversal in the mutual relationships between monetary and wage policies. In the Golden Age of

fordist growth, an accommodating monetary policy was used to sustain the money wage increases associated to the capital labour compromise: the market forces only manifest themselves during critical episodes, when inflation and external deficit called for some macroeconomic adjustments. In the uncertain Seventies and Eighties, the monetary targets are leading economic policies. For example the French government has decided since the mid Eighties to keep constant the exchange rate between the franc and the deutschmark. Therefore price competition is stronger among firms, which implies new mechanisms for wage formation, in order to preserve competitiveness. The competition for jobs is actually curbing wage increases, according to much more active labour markets: unemployment has more impact on average wage and income differentials have widened (R. Boyer, 1991).

### **3. "Facing these mysteries we do not understand, let us pretend that we invented them..."**

These converging reasons could be sufficient to interpret this paradigmatic change in the conceptions about the core coordinating mechanisms: from collective actions and public interventions to the reliance upon the invisible hand i.e. a purely anonymous market adjustment. A rather distinct argument relying upon cognitive maps and the process of paradigm change can be added. In fact, the whole set of political compromises, productive organization, collective representations, economic theory and policies has progressively eroded and lost its credibility in explaining the rather surprising evolution of the Eighties (Diagram 2).

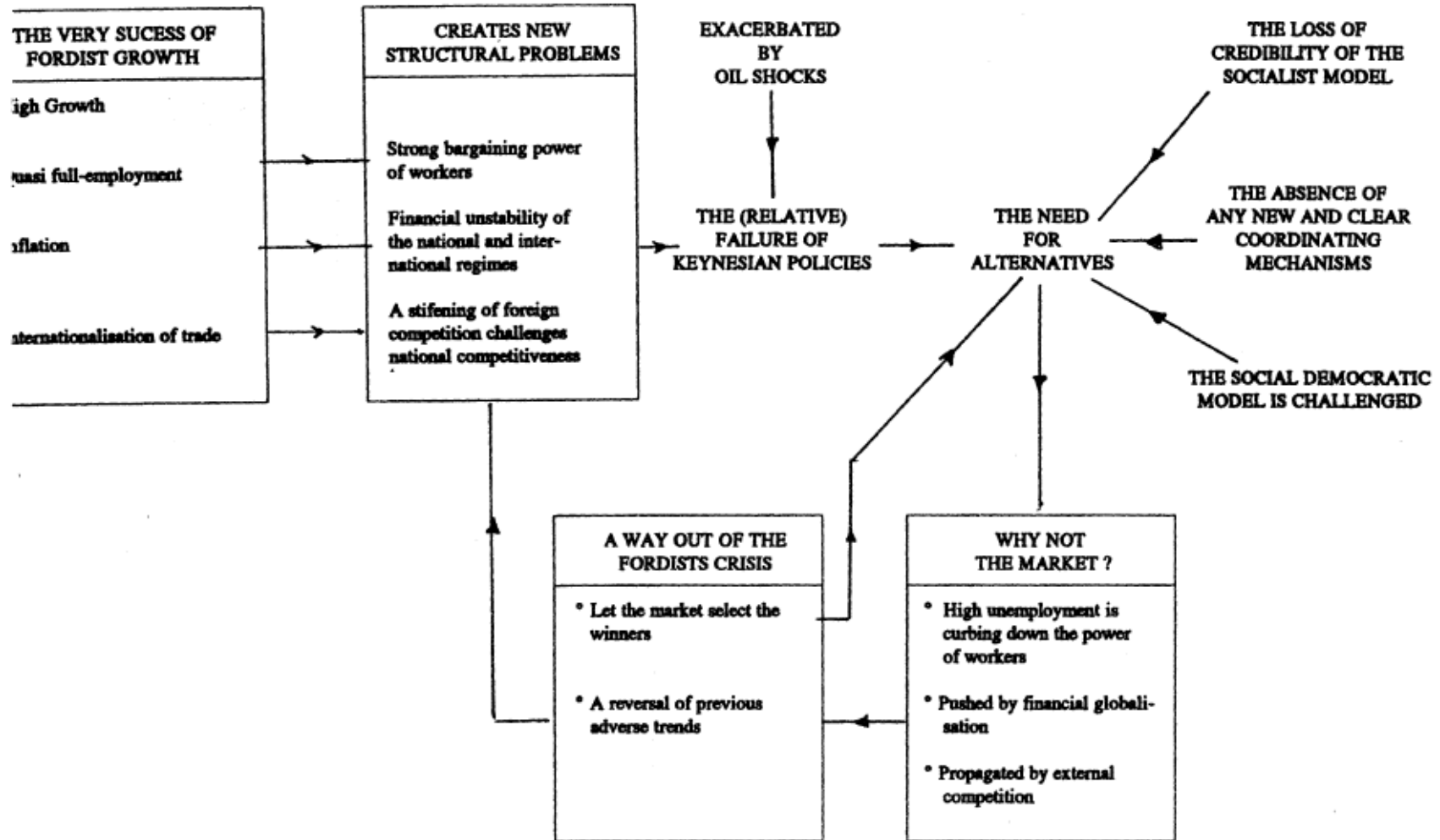
- Almost at the same moment, the quasi-totality of alternative models have collapsed or lost attractiveness. On one side, the emerging crisis of the Eastern European bloc had been perceived far before the collapse of the Berlin wall and the exceptionally rapid and surprising transition towards markets and political democracy. In other



words, the old model of a command or planned economy was raising many more imbalances, frustrations and inequality than the capitalist "anarchy of the market", just to mention the conventional marxist view. Clearly, in the Western world, even the most orthodox communist parties did not dare no more to express their adhesion to the Soviet model. In the actually existing socialist economies, the defects and limits of this model had been perceived long ago by the person in the street and by politicians and economists who have been desperately pursuing one economic reform after another (in the Soviet Union, Hungary, Poland).

- To a much lesser extent, a similar reappraisal has taken place for the social democratic model as implemented in Scandinavian countries or in Austria. Even when this model was still considered as delivering quasi-full employment and a very equal income distribution, it was more admired abroad than at home. Specially in Sweden, the new generations seem to be attracted by more individualistic values, whereas firms and business complain about too reduced wage differentials and excessive tax burden. Actually, the more drastic reduction in the share of public spending and welfare has been observed in Sweden after the mid-Eighties. Most politicians and even many unionists admit that more market flexibility has to be brought into the Scandinavian model. The globalization of competition, the surge of Swedish investment abroad and the perspective of joining the European Community and the single market still reinforce the erosion of this quite original model, even if it remains largely original. Just to transpose a well known Marxist formula: is not the market the inescapable future for modern societies?
- After all, markets could be the veil of our ignorance about complex and largely unintended contemporary structural transformations. If fully fledged alternatives to the Fordist regimes could be designed and still more implemented according to a

DIAGRAM 2 : HOW TO EXPLAIN THE RETURN TO THE BELIEF OF SELF REGULATING MARKETS ?



clear process, then the market could be used as a tool in guiding this transition. But quite on the contrary, the belief in the omnipotence of the market is frequently adopted just to hide a poor understanding of the on-going processes. At closer look, the justifications for adopting basic market mechanisms belong to four broad categories:

- The invisible hand argument is again fashionable, in the very sense Adam Smith meant in the eighteenth century. Markets are the only known mechanisms for making compatible initially independent and possibly conflicting strategies of a large number of individual agents, pursuing their own selfish interests. This process unintentionally but efficiently delivers an efficient use of the existing resources and talents, i.e. a Pareto optimum: the satisfaction of one agent cannot be improved without impairing that of another one. By contrast, even the more sophisticated central planning routines would be less efficient, more costly in information management and statistics (R. Heal, 1971), and less alert in responding to changing consumers' needs or desires. This argument has been recurrently used in interpreting the structural crisis of the Soviet model and its collapse (F. Bourguignon, 1990). The demonstration of the possibility of general equilibrium is fairly complex (see III.2 below) but policy debates do not need at all such technicalities, which can be reserved to the academics or to the candidates running for the Nobel Prize! - Socializing and combining scattered and partial information is a second and major attribute of market economies. In this Austrian conception which follows the ideas of Von Mises and F. Von Hayek, the main merit of markets is not that much to organize transactions and set prices and incomes. Basically it is the more efficient method to take into account the scattered and specific knowledge owned by each household or firm and transmit it to the

rest of society via supply and demand and ultimately price formation. Contrary to the hope for a socialist market economy (W. Brus, 1987), not any central planner will ever be able to collect the relevant information about consumers' tastes and firms' production functions. In really existing socialist economies, the managers have vested interests in hiding their true productive capabilities, whereas the planners do not have any method to reveal the changing preference of consumers, nor to enhance organizational and technological innovations.

- Stimulating technical change and innovations, precisely defines a third feature for economic systems ruled by a sufficiently strong competition associated with the diffusion of markets as the main coordinating mechanism. The *Wealth of Nations* opens with four rather neglected, even if frequently quoted chapters. The argument does not relate to the role of market in converging towards the so-called "natural prices", i.e. the only legacy taken into account by the marshallian or walrasian theories. To take again the example of the Soviet Union the model has not only collapsed due to its static efficiency (how to make an equal number of right and left shoes?) but still more due to its failure in delivering the transition towards mass consumption. The socialist system has not at all caught up with capitalist world, due to its inhibition of technical change and innovations. Consequently one of the best arguments for market capitalism is that competition enhances division of labour, invention of machinery, learning by doing and thus a cumulative decline in some relative prices, opening new markets in a cumulative causation model (R. Boyer and G. Schmeder, 1989). In other words, markets might be somehow inefficient in the short run (inducing for example, oversupply, unemployment and possibly some transitory instabilities). Nevertheless, they are the necessary ingredients

for reaping the dynamic increasing returns to scale associated to competition and its stimulus of innovation.

- Selecting among alternative organizations and institutions might be another task rather or quite well fulfilled by markets. If the model of development was clear enough for everybody, the role of market will be simply to coordinate decentralized behaviours along this growth path. Unfortunately, the visible hand implemented by the large firm and the conglomerates (A.D. Chandler, 1977) or the invisible hand shake between capital and labour (A. Okun, 1981) have somehow vanished into contrasted and competing models for firm internal organization, subcontracting and the wage labour nexus (R. Boyer, 1988, 1990). Therefore how to choose among these alternatives, given that a most economic agents do not have the relevant information for deciding on purely rational criteria (i.e. maximizing the flow of actualized profits over an infinite period with perfect knowledge)? It is very tempting to consider that the markets are indeed a darwinian mechanism for selecting among these numerous and complex strategies. One recognizes the evolutionary process put forward by Joseph Schumpeter and his modern followers. Let the market decide among options that the individuals are unable to screen out and discriminate. For example, if in the Golden years, some successful and innovative industrial policies could be implemented, the Eighties have undergone a drastic revision of the possibility that governments or public agencies could influence efficiently some strategic choices: "pick the winners!" has been the only motto put forward by these very passive industrial policies. They should eventually speed up the process of diffusion of new technologies and organizations once the market forces have selected the good ones.

If the Times magazine awarded economic mechanisms or concepts, undoubtedly THE MARKET will deserve to be recognized as the star of the Eighties. Probably, some of the factors already presented could take into account such an impressive comeback of this coordinating mechanism, previously underrated during the fordist era. Nevertheless, two other reasons are to be added.

### **III. THE MARKET'S BETWEEN TAXONOMY AND GENERAL EQUILIBRIUM THEORY.**

The Keynesian "Paradox of saving" is not so easy to understand for any person in the street: during depressions, the more eagerly people want to save in order to restore investment, the lower the employment level and ultimately the less optimistic the views about the future and finally the lower the investment level. By contrast, the notion of market equilibrium is so intuitive and widely observed in everyday life, that most of the arguments of free marketers find an immediate impact upon public opinion. For instance, in order to induce a recovery in investment is it not sufficient to save more? Similarly even the most ignorant economic agent would generally recognize that in many instances the replacement of administrative or bureaucratic organization by a free market would improve the welfare of both suppliers and demanders. These two supplementary arguments call for a closer investigation.

#### **1. From loose and contradictory definitions for market...**

As Monsieur Jourdain was speaking in prose...without being conscious of being so literate, everybody knows about markets and by his (her) everyday experience and behaviour has a seemingly clear definition or view. Unfortunately, the vocable market exhibits so many meanings that the success of the reference to it might be attributed to

very loose and partially contradictory definitions. Just in passing, they probably vary from one culture and language from another. The reading of newspapers, financial articles, applied research and of course grand economic theories suggest at least six different meanings (Table 2).

- In French, the term "marché", which is usually translated as market, very often defines the equivalent of a contract i.e. a bilateral agreement for delivering at some date a given quantity of a specified good for a fixed price, eventually revised according to some explicit formula. For example, building companies have been competing for getting the contract of the Paris la Défense Arch new tower. The bid and the related and sophisticated public legislation and private routines for organizing this competition is named "un marché". In English, public or private procurement would be the more proximate equivalent to this selection device. In this case, the market does not coordinate ex post independent strategies but organizes the screening of the various offers and helps in selecting the best, i.e. generally the least costly or the second least costly project. Let us stress that the final contract, actually negotiated, is bilateral and is enforced, by the general legal system provided by the commercial laws prevailing in the area considered. This meaning is at odds with respect to the conventional definition of the market as the locus where anonymous supplies and demands interact, with weak or no legal enforcement. Nevertheless, this conception is less marginal than it might seem, since this is a common routine in capitalist economies, if not in formally socialist countries. This absence contributes to block the transition towards market mechanisms, the commercial contracts being an elementary but basic ingredient of markets.

**TABLE 2 : FROM A MICRO ADJUSTMENT PROCESS TO A COMPLETE ECONOMIC SYSTEM : TOO MANY MEANINGS FOR THE SINGLE WORD "MARKET"**

| SPACE<br>TIME<br>HORIZON | LOCAL  | INTERMEDIATE | GLOBAL |
|--------------------------|--|--------------|--------|
| LOW PERIODICITY          | THE MARKET PLACE   |              |        |
| RATHER<br>PERMANENT      | A MARKET FOR<br>A COMMODITY  |              |        |
| INTERTEMPORAL            | <div style="display: flex; justify-content: space-between; align-items: center;"> <div data-bbox="884 904 999 954">FINANCIAL<br/>MARKETS</div> <div data-bbox="1209 837 1315 900" style="border: 1px solid black; border-radius: 50%; padding: 2px;">MONEY</div> </div>    |              |        |
| LONG RUN<br>DYNAMICS     | <div style="display: flex; justify-content: space-between; align-items: center;"> <div data-bbox="1059 994 1171 1057" style="border: 1px solid black; border-radius: 50%; padding: 2px;">LABOUR</div> <div data-bbox="1209 1137 1318 1187">MARKET<br/>ECONOMY</div> </div> |              |        |
| SECULAR TRENDS           | <div style="display: flex; justify-content: space-between; align-items: center;"> <div data-bbox="1203 1321 1318 1384" style="border: 1px solid black; border-radius: 50%; padding: 2px;">NATURE</div> </div>  |              |        |

NOTE : The circles are used to label fictitious commodities in the sense of Karl POLANYI.



- In the emergence of modern capitalist economies, the market is clearly associated with a precise localization and time schedule. A market-place is "an authorized public concourse of buyers and sellers of commodities, meeting at a place more or less strictly delimited or defined, at an appointed time". This is the definition provided by the British Royal Commission on Market Rights and Tolls in 1891 (P. Hill, 1987). In contemporary economies, only few markets are organized accordingly, with the exception of itinerant and periodic markets for food, agricultural products, flowers, antiques (i.e. a very limited scope in the whole set of transactions). Nevertheless, Karl Polanyi (1946) and F. Braudel (1979) have carefully investigated how the market mechanisms have emerged from a highly regulated and institutionalized economic life. Consequently, contemporary global markets are the last followers of this embryonic form of market, which has been conquering a larger and larger fraction of commodities, and ultimately some factor markets, such as labour (W.B. Rothenberg, 1992).
  
- By extension, classical or neo-classical economists have given a wider definition for markets: "In the literal sense, a place in which things are bought and sold. In modern industrial system it has expanded to include the whole geographical area in which sellers compete with each other for consumers" (Alfred Marshall, Principles of Economics, 1890). One can for example read in the financial press that in 1990 the market for tires has undergone a severe recession in United States due to the decline of car sales in Detroit or alternatively that the price of apartments in New York has declined during the recession initiated in 1990. This third concept proposes a kind of aggregation over a given geographical area and/or for one product or close substitutes. Note that the market is therefore losing its intuitive contents --it is no more the market-place-- but is gaining some analytical relevance, at least for economists or people engaged in marketing. In some extreme cases, the market could mean the demand addressed to a given sector or even at the economy wide level,

implying the equivalent of effective aggregate demand. This second definition is not at all equivalent to the first one.

- According to a fourth conception, the market is basically a mechanism for making compatible a series of individual supplies and demands. Consequently, the theoreticians insist upon the fact that the market is clearing when the equilibrium price is obtained, and this tradition goes back to Adam Smith and has been prolonged until now by neo-classical economics. To quote again Alfred Marshall, "Economists understand by the term of market, not only particular market places in which things are bought and sold, but the whole of any region in which buyer and sellers are in such a free intercourse with one another that the price of the same goods tends to equality, easily and quickly". A new and rather abstract property is therefore added to the definition of a market: it should adjust and converge towards a unique price. Quite subtly the concreteness of the market place is contrasted with the theoretical and abstract properties of a self equilibrating mechanism. The shift from a positive conception to another one, much more normative, is very clear in Marshall: "The more nearly perfect the market is the stronger is the tendency for the same price to be paid for the same thing at the same time in all parts of the market". Here comes the ideal-type of pure and perfect market mechanisms. Again this is not an evident property since for example the presentation by Encyclopedia Britannica (1980), immediately puts emphasis upon the variety of truly existing markets. On some of them, the producers offer their goods, whatever the price which is set by the market. On others, the producers set their own price and the demand is adjusted accordingly. One could recognize the distinction between buyers and sellers markets which are far away from the ideal of purely atomistic competition among economic agents taking for given the current relative prices.

- A fifth conception generalizes the previous one to a whole set of interdependent markets. When for example economists and politicians consider the transition of socialist economies towards markets, they in fact characterize an economic system, in which market competition is dominant or exclusive. For example, the intermediate products can be distributed according an indicative or imperative planning (consider the surprising success of early French planning after WWII), but markets still prevail for consumer durables and final goods, land, labour and capital. Therefore, there exists a complete spectrum of so called market economies according to the extension of this coordinating mechanism. Implicitly, and explicitly for some authors (F. Braudel, 1979), market economy is an alternative labelling for capitalism, private property and competition, i.e. terms which are not logically equivalent. As far as economic theory is concerned, the conception of L. Walras is extended in modern equilibrium theory (K. Arrow and F. Hahn 1971). In this very extreme vision, all economic agents are interacting via the equilibration of a complete system of interdependent demands expressed on every commodity market but also for capital goods and the services of labour. Only money is not supplied and offered, since it is the simple numeraire in which all the nominal prices are expressed. In this vision, any macroeconomic mechanism is abolished, since for example sixty million French people are supposed to express their joint demand upon thousands commodity markets. Again one is struck by the large discrepancy between the empirical definition of a market economy and its more sophisticated formalization. The truly existing institutions are implicitly compared with the ideal of a society coordinated by a series of pure and perfect markets upon which not any single individual has any influence but is free to choose (M. Friedman, 1962; 1981).
  
- In a metaphoric view, a market is assumed to exist when and where social actors compete one with each other in order to get scarce resources or some restricted positions or status. When individuals with conflicting objectives interact and finally

converge towards an agreement or transaction, some economists or sociologists might conclude the existence of a quasi-market. For example, the Chicago school has extended the concepts of rationality, equilibrium and market to a large diversity of social issues: the market for marriage, the economics of crime, the supply and demand of justice, the market for donations to churches and or beliefs in eternal life (G.S. Becker, 1964; 1981). Such an extensive and maybe imperialist use of the concept of market is not without interest and simultaneously exhibits very severe limits. On one side, Karl Marx and his followers --including maybe the American institutionalist School à la Veblen-- have quite rightly pointed out that under capitalism quite everything (e.g. social respect, love, promise for eternal life, political influence) becomes a commodity. In a sense, the Chicago theoreticians have taken seriously this Marxist prognosis. But on the other side, the use of the concept of market becomes so loose that it is more mystifying than enlightening: for instance, even if some private firms specialize in matching offers and demands for marriage, is it really serious to consider that the market is the allocating process between brides? Similarly, the market of political ideas and programs probably exists but does not provide any deep insight upon the underlying issues of political debates. In fact, the interactions between markets and politics are far more complex (A. Alesina and G. Carliner, 1991; D.A. Hibbs, 1987). In this last conception, the market becomes so wide in its scope that it does not mean anything any more.

Nevertheless, no doubt that the polysemy of such a rich notion has played some role in the impressive comeback of free market ideas: everybody has always encountered a form of another of market, which therefore acquires a rather intuitive meaning, at the possible cost of major misunderstandings. Is there any relation between the market place for antiques and the call for a transition of Eastern European economies towards a market system? Between a contract or public procurement and the enchanted world of the Marshallian partial equilibrium or Walrasian general equilibrium? Probably few or

none and in troubled times, political programs and ideologies benefits from such an impressive ambiguity.

## 2. ....To a typology of contrasted market mechanisms.

For our own purpose, it is important to propose a clear definition, however imperfect and provisional, in order to bring some clarity into the following analyses. Basically, four different levels have to be disentangled and recombined in a second step (see section VI, below).

- At the level of a single commodity, a market is an institution which coordinates ex post the strategies of multiple traders, competing one with each other, therefore initially independent, but finally interacting via price formation. A fully fledged market supposes furthermore a well defined commodity, as respects quality and quantity, repetitive transactions, regularly organized and somehow centralized or at least made compatible by joint adjustments. Implicitly, any single market is inserted into a whole set of other markets, organizations and institutions at least in really existing economies. For example, the existence of a monetary system is a prerequisite in the functioning of any commodity market: in what unit are nominal prices expressed? How are transactions paid? What are the methods for balancing the agents with deficit and surplus, i.e. how is the credit market structured? Similarly, a minimum legal environment is needed in order to assure the economic agents with respect their buying and selling orders, which means either the existence of a business association in charge of the functioning of the market, or a public authority enforcing private contracts. In the absence of these two series of institutions or rules of the game, any market would collapse, due to the spreading of opportunistic behaviours among the traders. For instance, insider trading upon the stock market can destroy the confidence of outsiders and stop or reduce transactions. In other words, even if

pure and perfect markets can be self equilibrating they are not self enforcing, for they need an external foundation in the legal system, business ethics or agreed rules of the game (A.D. Shand, 1990).

- There is not any unique, but on the contrary a multiplicity of functioning regimes for various markets. Contrary to the ideal of markets with pure and perfect competition, put forward by Adam Smith, then elaborated by Alfred Marshall and ultimately generalized by Leon Walras, the interactions between a limited number of traders, with unequal wealth and market power, might deliver contrasting market structures. For example, a market may emerge as a structure of roles with differentiated niche for each firm (H.C. White, 1981). The joint competition over quality and price does not necessarily lead to a sustainable market configuration since at least three market failures are theoretically observed. Thus a large variety of markets (H.C. White, 1988), are structurally embedded into a series of constraints (E.M. Leifer and H.C. White, 1988). Still more, the very precise institutionalization of market may have important consequences upon its functioning and the macroeconomic outcome (J. Lesourne, 1991). Modern industrial economics, as well as the micro formalizations about technical change and innovations exhibit a complete spectrum of market configurations: complete or partial monopoly, cartel and collusion, oligopoly, contestable market, perfectly contestable market, pure and perfect competition, complete or partial monopsony, etc. This is only a small list for forms of competition (J. Stiglitz and G.F. Mathewson, 1986; J. Tirole, 1988). As far as the efficiency and welfare properties of a market are concerned, they cannot be assessed independently from such a precise description. This is a major contribution of the abundant literature about a renewed microeconomic theory. It should inform any decision about deregulation and privatization. If for example Eastern European firms, in position of monopoly or oligopoly are privatized, in the absence of any foreign competition, then few of the expected benefits of a pure and perfect competition will

be reaped. The same remark could be addressed to the privatization program launched by the British and French governments in the mid-Eighties: changing the forms of property does not mechanically imply any strengthening of competition.

- The extent and the scope of the market can itself vary from a totally marginal role (for instance the long distance trade in the Middle Ages) to an overwhelming mechanism percolating within the whole society and transforming even subtle social relations into mere commodities transacted upon specific pseudo-markets. Therefore, the notion of a market economy is often misleading since it implies that there is one unique configuration for the market mechanisms. This is largely contradicted by any international comparison between North and South, East and West (J.R. Freeman, 1989; G. Esping-Andersen, 1990) and by long run historical studies showing the very slow process of market emergence (K. Polanyi, 1946; F. Braudel, 1979; C. E. Lindblom, 1977; D. W. Galenson, 1989). Basically it is important to investigate if market mechanisms are limited to the exchange of intermediate products between firms, or concern final goods, directed to the domestic or the international markets. Similarly, the property itself can be priced upon specific markets such as the stock exchange, whereas the various financial assets may or may not be traded upon specific markets. After the gale of financial innovations during the last two decades, still more sophisticated markets have been implemented in which traders are exchanging forecasts about the evolution of key macroeconomic variables, i.e. the so-called market for futures. This kind of market, based upon the photography game imagined by John Maynard Keynes consists in finding the equivalent of the prettier face according to that it is expected to be the feeling of the majority, not his (her) own appreciation. This has clearly few relations with the market place for antiques in Foire Saint Germain, which takes place each year near Paris! Finally, the market might become a big coordinating mechanism when a lot of fictitious commodities are

**TABLE 3 : WHAT IS A MARKET ECONOMY ? A QUASI CONTINUUM OF CONFIGURATIONS**

**THE PRE REQUISITE TO ANY MARKET**

- PRIVATE CONTRACTS
- COMMERCIAL LAWS
- MONETARY REGIME
- SELF ENFORCING MECHANISMS/  
EXTERNAL REFEREE

**DEFINITION :** A configuration for a market economy is any viable matrix such as

|                  | Commodities | Fictitious | Extended |
|------------------|-------------|------------|----------|
| Monopoly(.)      |             | X          |          |
| Oligopoly        |             | X          |          |
| Imperfect comp.  | X X         |            |          |
| Contestable mar. |             |            |          |
| Perfect Comp.    | X           |            |          |
| Pure & Perfec.   |             |            |          |

| EXTENT OF THE MARKET<br>DEGREE OF PERFECTION | COMMODITIES                         |               |             |               | FICTITIOUS COMMODITIES |       |             | EXTENDED COMMODITIES |         |           |
|--|-------------------------------------|---------------|-------------|---------------|------------------------|-------|-------------|----------------------|---------|-----------|
|  | RAW MATERIAL                        | INTER-MEDIATE | EQUIPE-MENT | CONSUMER GOOD | LABOUR                 | MONEY | LAND/NATURE | FINANCE              | FUTURES | POLLUTION |
| ◦ MONOPOLY (MONOPSONY)                       | EMERGING MERCHANT CAPITALIM         |               |             |               |                        |       |             |                      |         |           |
| ◦ OLIGOPOLY                                  | EARLY INDUSTRIAL MARKET ECONOMY     |               |             |               |                        |       |             |                      |         |           |
| ◦ IMPERFECT COMPETITION                      | THE FORDIST REGIME                  |               |             |               |                        |       |             |                      |         |           |
| ◦ CONTESTABLE MARKET                         | MATURE INDUSTRIAL MARKET ECONOMY :  |               |             |               |                        |       |             |                      |         |           |
| ◦ PERFECTLY CONTESTABLE MARKET               | THE TRENDS                          |               |             |               |                        |       |             |                      |         |           |
| ◦ PURE AND PERFECT COMPETITION               | ADVANCED CONTEMPORARY               |               |             |               |                        |       |             |                      |         |           |
|  | AS THE IDEAL OF                     |               |             |               |                        |       |             |                      |         |           |
|  | INTERWAR PERIOD FOR THE ECONOMIES   |               |             |               |                        |       |             |                      |         |           |
|  | THE BIG MARKET. NEOCLASSICAL THEORY |               |             |               |                        |       |             |                      |         |           |
|  | OF A CAPITALIST ECONOMY             |               |             |               |                        |       |             |                      |         |           |



turned into effective trading upon rather specific markets: labour if this very genuine social relation can be regulated by pure supply and demand mechanisms; money if various banks can issue their own currency, the value of which would be assessed upon an interbank currency market evaluating what is everyday the exchange rate between one dollar deposit in Chase Manhattan with respect to city banks; polluting rights when they can be exchanged between firms. Remember that in this case it is not an exchange between economic agents and nature, but between individuals buying and selling rights granted by a local or national public authority. In fact it is not a private good but a public good with strong externalities and consequently, possible failures of pure market adjustments (IV).

- Consequently, market economies exhibit a whole spectrum of configurations, not only one as frequently implied by the discussions about the so-called return to free markets. Thus, an economic system with a leading role attributed to market competition should be characterized by the cross definition of the following features (Table 3).
  - The list of institutions, organizations, legislation or associations which are organizing the functioning of the various markets, with a detailed description of their responsibilities, objectives, tools and enforcement tools or incentives.
  - The series of commodities, the supply and demand of which is regulated by market institutions, with their possible interactions with alternative coordinating mechanisms (hierarchies, networks, State regulation).
  - A characterization of the forms of competition, according to the number of traders, the distribution of ownership, the distribution of market power and the possible explicit or implicit coordinating mechanisms, in order for example to

solve over capacity problems or to respond to uncertainty and/or structural changes.

This three dimensional matrix would define rigorously as many market economic systems as there are combinations of cells in this matrix. The proportion of markets among the alternative mechanisms could define a measure for the proximity to a pure, perfect and complete market economy. For instance, it can be argued that in modern economies the coordination within the large firms is as important as market adjustments (R. Coase, 1937; 1988) and that quasi planned coordination has largely replaced market coordination (W. Lazonick, 1991). Then, the most interesting problem for social sciences, specially political economy and economic analysis would be to assess the viability of these various configurations and compare them with respect to their welfare properties.

More generally, each form of market is completed by or embedded into a series of other coordinating mechanisms which are based either an obligation (and not only self interest) or/and vertical coordination, alliances, hierarchies, communities, networks, public authorities (Ph. Schmitter, 1990; J.L. Campbell, R.J. Hollingsworth and L.N. Lindberg, 1991; W.D. Coleman, 1990). The task for social scientists would then be to assess the viability --and not so much the efficiency-- of such a complex hierarchy of constitutional principles, institutions, incentive schemes and organizations (D. North, 1991). Thus, the product, labor and credit markets organize a competition among alternative organizations (O. Favereau, 1989) and not only among old and new technologies (R. Nelson and S. Winter, 1982). This is the huge but stimulating agenda which is proposed by recent analyses (R.J. Hollingswroth, Ph. Schmitter and W. Streeck, 1993).

### 3. An argument of last resort: the rigor and the elegance of two welfare theorems.

In everyday life, managers, unionists, households, bankers, bureaucrats and even more so, politicians have to rely on simpler ideas than suggested by the previous typology. Given the structural crisis of fordism, should national economies evolve towards more market competition or more public interventions and institutionalization? When the world is complex and uncertain, clear and crisp conceptions, perhaps erroneous or partial, usually win over more tricky but difficult to capture alternative representations. Here, the ideal of pure and perfect market has very three very good arguments indeed.

- Market prices are better than administered prices: on any single market, most economic agents usually consider this property as intuitive and convincing. Basically, when suppliers and demanders are free to make offers and counter-offers, the final outcome - whatever its labelling, for instance equilibrium - is considered as defining the equivalent of an optimum since all the economic agents have exhausted the opportunity for mutually advantageous exchanges (T. Eggertsson, 1990). Of course, this is the case, if unfettered competition has pushed the price towards its pure and perfect competition level, which in some sense is an optimum. But the same superiority of market will be recognized by agents even if competition is imperfect, at least to some degree (for a strong objection see section IV). Striking examples are available:

- On labour markets, the Eighties have frequently exhibited the following argument: minimum wages are to be discarded since they price out young and unexperienced workers with low marginal productivities. If wages were free to move downward, then firms with production processes intensive in labour would have interest in hiring these workers. Symmetrically, some wage earners,

especially outsiders, would prefer being employed at lower market wages over being unemployed (A. Lindbeck and D.J. Snower, 1986). The welfare system itself, as well as the State, would be better off, since they would recover higher contributions to collective insurance and larger taxes. In other words, any regulation imposing minimum --or maximum wages-- would not be Pareto optimal. In the absence of any general equilibrium effect operating in the opposite direction, the reasoning seems quite convincing to a large fraction of public opinion. A Keynesian argument about the non-existence of any true labour market and absence of a clear equilibrating role to wages would be discarded as counter-intuitive and paradoxical. Fairness should be totally disconnected from efficiency (O.C.D.E., 1993), whatever the empirical findings about the importance of fairness upon the functioning of labour markets (D. Kahneman, J. Knetsch and R. Thaler, 1986).

- For agricultural products and especially policies of administered prices, the same reasoning can be extended in order to show the non-optimality of any fixed prices. Of course, prices higher than the world levels benefit the income maintenance of farmers, as they do in Europe, in Japan, and the United States. But the cost is paid by consumers who are spending more for food and thus are worse off. If the national economies were allowed to buy at the world prices, the supplement of welfare for consumers could be partially used to compensate the loss of farmers' income due to their declining production. Sophisticated simulations derived from an applied general equilibrium model seem to show that the potential welfare gains are significant if not very large (J. Martin and Alii, 1990). If politically the related transfers could be implemented, the whole society would be better off. Basically, let market forces provide an efficient allocation of scarce resources and if governments disagree about the associated income distribution, adequate transfers can be

organized and provide the desired new equilibrium, which will deliver another Pareto optimum.

This is a wonderful example of more general results, known as the two welfare theorems, which will now be presented.

◦ In a Walrasian world, any equilibrium is a Pareto optimum. According to this First Fundamental Theorem of Welfare Economics, a society which would be organized entirely via market mechanisms would reach an efficient allocation of scarce resources and productive factors. This means that the situation of any economic agent could not be improved without deteriorating the welfare of another one. More precisely, this theorem deserves the following conditions. If there are enough markets, if all consumers and producers behave competitively and if an equilibrium exists, then the allocation of resources in that equilibrium will be Pareto optimal, i.e. the satisfaction of any consumer or producer cannot be improved without impairing that of others (G. Debreu, 1959; K. Arrow and F. Hahn, 1971; and the survey by J.O. Ledyard, 1987). This theorem is important since it shows under which conditions a pure market economy can deliver an equilibrium which is efficient. Note that these conditions are numerous and not so easy to fulfil in actual economies:

- An auctioneer is coordinating ex-ante all the exchanges after an initial trial and error process during which he finds out the vector of equilibrium prices clearing simultaneously all the markets. In a sense, the economy is now managed as the equivalent of Wall Street or a centrally planned economy (G. M. Heal, 1973).
- Atomistic competition prevails, i.e. the traders are so numerous that none of them can exert any monopoly power and consequently they adjust passively

their supply and demand according to the system of relative prices, without any strategic behaviour. Ideally some very abstract models show that if the number of agents tends towards infinity, then pure and perfect equilibrium will be asymptotically reached.

- The number of goods is finite and their quality is common knowledge. In the simplest models, each good is supposed to be given by its physical characteristics and eventually its localization. In more sophisticated formalizations, the goods are indexed according to the various states of nature and intertemporal transactions can be organized due to the existence of a complete set of future contingent markets (G. Debreu, 1959). Not any existing economy exhibits such a characteristic even though the financial markets for futures have tremendously developed. It is not possible indeed to establish a price order for 31st December 1998 a black Saturn automobile, with the provisions that I am not unemployed and the price of the oil barrel is below \$15!
- All the goods are privately appropriated, that is to say that not any public good or external effect is present in this market economy. If such a good exists, no rational agent will agree to finance it due to a free rider dilemma: why not benefit from public goods paid by others? Consequently, in the absence of a collective authority, no public good will be provided in this economy. Of course, the concept of equilibrium can be extended to such public goods but there might exist a multiplicity of equilibria, each of them associated with various tax or incentive systems: the market is no longer able to provide an adequate supply of such goods. Since they (e.g. general education, security, trust, loyalty, research and development, transport infrastructures) are more

and more important in modern economies, this is a serious challenge to pure market competition.

- Returns to scale are constant, which is a condition for any equilibrium of private property to exist. If these returns were increasing, then only one monopoly firm could provide the market and would eventually push the equilibrium to an infinite production! Again, if such increasing returns to scale are observed, pure market forces are unable to provide any satisfactory equilibrium, nor any Pareto optimum.
- A complete set of contingent markets exists in order to solve all the problems associated to intertemporal choices of consumers and producers. Consequently, any loss associated to uncertainty is removed and the historical path does not matter at all, since all the transactions in the future are already organized at the initial period. No irreversibility is allowed by such a model, quite at odds with a fundamental feature of industrial capitalism (R.Boyer, B. Chavance, O. Godard, 1991).
- By hypothesis, all equity problems can be separated from the objective of efficiency. Such a distinction allows one to completely disconnect value judgements from economic criteria about static efficiency. This is an elegant method for escaping some crucial issues in contemporary economies, as will be developed more extensively in the following section.

Whatever the restrictive character of these seven hypotheses, a free marketer can use this first welfare theorem to push the argument in favour of more and more market mechanisms. Of course, in present societies some markets are missing, some monopolies or oligopolies are inducing unsatisfactory equilibria, and information about

the quality of goods is asymmetric. But precisely let one extend the scope of the markets and these imperfections will be removed and a Pareto optimum will be reached. If politically and socially pure and perfect competition could be implemented, then most of contemporary problems about inflation, unemployment and financial instability would vanish.

- Conversely, any Pareto optimum can be obtained as a market equilibrium, under certain conditions quite similar to those of the first welfare theorem. Both the preference set of consumers and the production set of producers have to be convex, i.e. marginal utility of any good has to be decreasing along with marginal productivity of any factor. Of course, all economic agents have to behave competitively, i.e. maximize satisfaction or profit for any given system of prices (G. Debreu, 1959). Of course this result is very abstract indeed, and one imagines that only trained professional economists know it, and can use it during the discussion about the design of alternative economic system (W. Brus, 1987; F. Bourguignon, 1990). Nevertheless it has some relevance for this paper.

First, this second welfare theorem reinforces the disconnection between social values and economic efficiency. Basically, imagine a socialist planner who would like to maximize any collective objective function, including the satisfactions of each individual agent (J. Lesourne, 1964). He could, under certain conditions, converge towards the collective optimum by totally relying upon market forces. He would have only to organize the transfers in initial resources which will sustain the corresponding market equilibrium. Second, and consequently, it is not necessary to build brand new coordinating mechanisms to fulfil a socialist objective: the idea of market socialism (O. Lange, 1937) are comforted by such a theorem. Thirdly, for authors such as A. Lerner (1934), F. Taylor (1929), an ideal socialist economy would look like a perfect walrasian economy, in which a benevolent planner would play the role of a general



auctioneer. Fourthly, the present transition of Eastern European countries puts a strong emphasis upon the possible relevance of such a conception of market and democratic socialism: instead of breeding a large and oppressing bureaucracy, why not use the market as a tool to stimulate entrepreneurship, workers commitments and more generally the concern for efficiency?

So far, so good: the market seems the most wonderful mechanism ever invented to coordinate individual strategies and enhance global efficiency. This was the core conclusion of mathematical neo-classical economists during the early Seventies. Since then, the intellectual climate and the economic problems have drastically changed. To paraphrase one of the leading mathematical economists, these findings have been challenged by the very success of the methodology which consists of applying intensively deductive reasoning and mathematical formalization to economic issues (F. Hahn, 1992: 47). The deepening of the theory has recently led to provocative conclusions, which totally contradict the generality of self equilibrating market mechanisms. Furthermore, these new results do deliver interesting insights as regards the most pressing contemporary macroeconomic problems: the hysteresis of employment (at least in Europe), financial instability in spite of the sophistication of market for futures.

TABLE 4 – A TYPOLOGY FOR MARKET FAILURES AND THEIR CONSEQUENCES

| THE HYPOTHESES OF THE TWO WELFARE THEOREMS                              | STYLIZED FEATURES OF CONTEMPORARY ECONOMIES  | CONSEQUENCES UPON MARKET FUNCTIONING  |
|---|--|---|
| 1. De facto, complete centralisation of transactions, no need for money | 1. Largely decentralized exchanges allowed by money and credit                         | 1. Multiplicity...or absence of any equilibrium. Efficiency is no more warranted                                    |
| 2. Atomistic competition among very numerous agents                     | 2. Imperfect competition via product differentiation is the rule                       | 2. Market equilibria are no more efficient  |
| 3. The list of goods is finite, their quality is known                  | 3. Producers are better informed than consumers, product innovation is crucial         | 3. Markets do not clear : unemployment and over capacities  |
| 4. Purely private goods, without any external effect                    | 4. Existence of many public goods and external effects (security, education, R&D,...)  | 4. Competitive markets imply an under-investment in collective goods  |
| 5. Constant returns to scale and fixed technologies                     | 5. Learning by doing, by using and increasing dynamic returns to scale are significant | 5. Imperfect competition is the rule, inefficient techniques can persist, multiplicity of path dependant equilibria |
| 6. All contingent future markets exist                                  | 6. Only few financial markets allow intertemporal transactions                         | 6. Existing markets cannot deliver an adequate coordination : inefficient equilibria are the rule                   |
| 7. Equity principles have not any influence upon efficiency             | 7. Workers loyalty and commitment are linked to a fair treatment                       | 7. Markets do not clear ; unemployment can persist  |

#### **IV. MODERN MICRO THEORIES AGAINST THE OMNIPOTENCE OF PURE MARKET MECHANISMS.**

For Adam Smith, the invisible hand argument was intuitively very strong. Unfortunately, the mathematical investigation of the conditions for the existence of one equilibrium, its stability and its equivalence with a Pareto optimum has shown that such a miraculous harmonization of interests was exceptional. Given the core features of modern economies, the market mechanisms if they were exclusive and ruling the totality of society would do as much harm as good to welfare. In a sense, the very success of the general equilibrium research program has unwound into an unprecedented crisis in economic theory (B. Ingrao and G. Israel, 1990). Neo-classical tools now contradict rather critically the optimism of Doctor Pangloss, and consequently the claims of free market ideologies. In really existing economies, the market is too clumsy to be given major responsibility in monitoring monetary creation, quality evaluation or workers loyalty.

For a decade, academic reviews have abounded in papers exhibiting an incredible number of market failures and arguing for some alternative coordinating mechanisms. A brief synthesis will be provided here and will be organized according to the seven hypotheses which are necessary to warrant the two fundamental welfare theorems (Table 4).

##### **1. The decentralization of monetary economies against the complete centralization of General Equilibrium Theory.**

In decentralized monetary economy, that no equilibrium might exist or alternatively there be no multiple equilibria is a Pareto optimum. The paradox of the Walrasian model has long be unnoticed: in fact, this corresponds to a rather strange

economy in which all the supplies and demands are centralized and transmitted to an auctioneer. This is a beginning and acceptable hypothesis for a very specific and highly organized market such as the stock market but not at all for the bulk of transactions on the products and factors markets, where such a centralization does not occur. It is precisely the strength of really existing economies that transactions take place in a sequential manner in a vast number of segmented markets. On the contrary, the pure theory of general equilibrium finally assumes a quasi centralized economy in which all the transactions are simultaneously fulfilled via the equivalent of a planning agency. Still more, money only plays the role of numeraire, but does not intervene in the transactions, nor in the holding of reserves.

If totally decentralized transactions are introduced and of course if money balances are the only method for expressing effective demand, then a totally different kind of theory has to be elaborated: the so-called disequilibrium theory deals with such generalization, which exhibits a multiplicity of regimes, the walrasian equilibrium being only a specific one, very unlikely to be reached by pure market mechanisms. Still more, it can be shown that in the absence of money or numeraire, the equilibrium may not exist or if it exists it is far from any optimum for the society. Consequently, in a totally decentralized monetary economy, pure and perfect competition in product and labour markets does not lead any more to any satisfactory equilibrium (J.P. Benassy, 1982). Casual observation of post Communist transitions to markets in Eastern Europe shows that a series of free markets in the context of uncertainty and multiple currency may lead to quite unsatisfactory outcomes in terms of growth, employment and welfare.

## **2. Strategic behaviour versus price taking: the possible instability of market economies.**

If agents behave strategically, i.e. if they do not take as given the prices they observe, then competition is no longer atomistic and the economic agents can collude in order to coordinate their supply and demand, and they can form cartels, oligopoly and in

some extreme cases increasing returns to scale or natural scarcity can create a pure monopoly. In all these cases, the production will not be a social optimum, by comparison with a pure and perfect competition case in which everybody is acting parametrically and takes as given the price and the strategies of other suppliers or demanders. Not any general results can be obtained under imperfect competition and the property of the equilibrium will depend drastically upon the distribution of monopoly rents (C. d'Aspremont, R. Dos Santos Ferreira and L.A. Gerard-Varet, 1989).

Thus the unequal power of economic agents now have an impact upon the level of production and employment and the distribution of income and by extension of wealth when the transactions are repeated through time: contrary to the idealistic Walrasian model, far from optimum distribution can be obtained and cumulative inequalities are possibly generated. Again, the transition toward a market economy, for example in Russia, clearly shows that markets can be associated with collusion, speculation and even corruption and do not necessarily correspond to the ideal of the text book in economics. Some agents have more resources, power and information than other and they can capture oligopolistic rents without providing any significant increase in the supply of the more required basic goods.

### **3. When quality is uncertain, markets might be inefficient.**

When information is asymmetric about the nature and the quality of the goods the markets have now a quite difficult task to perform: the price is then usually considered as an indirect evidence for the underlying quality (the higher the price posted, the better the expected quality). Consequently, the price is fulfilling two potentially conflicting objectives: first allocating scarce resources by revealing marginal cost and/or marginal utility, second transmitting a signal about the level of quality. It has been shown with very simple models that no equilibrium might exist in such markets for lemons (G.

Akerlof, 1984). This is not a curiosity limited to exotic or used goods but this can explain why firms might be unwilling to hire workers demanding too low wages, since this will be interpreted as the result of a pure productivity or quality. Consequently, the wage will no longer fulfil its task of equilibrating labour markets. Similarly, firms proposing to pay excessively high interest rates upon their loans, will be rejected by any rational banker in fear of a very risky business and a probable bankruptcy (J. Stiglitz and A. Weiss, 1981).

Once more, the nice symmetry and smoothness of pure market mechanisms vanish and turn into unequal market power. Usually, the producers know better than the buyers the basic quality of the goods they supply and consequently, they can fool them, especially if the related transaction is infrequent. Of course, if such a situation is repeated, the consumer may counterattack and refuse to buy any more the highly priced but low quality goods, by a so-called reputation effect. Again, durable good markets, as well as labour and credit ones will no longer be at their full equilibrium and the two welfare theorems are no longer true: the market does not any longer provide automatically an optimum for the society. It might well be more efficient than a centralized planning of the Soviet type, but its efficiency will depend upon the precise institutional setting in which each market is operating: some might be very efficient, whereas others might deliver catastrophic results. It is sufficient to consider the supply of agricultural products in former Soviet Union republics to realize that the dissolution of the Gosplan and its replacement by a series of rather anarchic markets has not enhanced the supply of farmers. A very bad market can be inferior to a moderately imperfect planning.

#### **4. Market mechanisms are unable to cope with externalities and public goods.**

Even if one supposes that quality is well defined and that a large number of economic agents are pushing toward a competitive equilibrium, the result might be far

away from a Pareto optimum if the services derived from the use of a product cannot be totally appropriated by the buyer. A well known example relates to public goods such as security, law enforcement, defense, clean air: the benefits from such goods cannot be appropriated privately and the conversely it is difficult to rely on pure market mechanisms in order to organize the equilibrium between supply and demand (R. Coase, 1960). For example, everybody would like such collective goods to be available but nobody will be ready to pay for them. When asked if they should be implemented by a public agency, agents would refuse to reveal their private utility: one recognizes the free rider problem inherent to public goods (A. Schotter, 1990) and collective action (M. Olson, 1965; T. Sandler, 1992). Consequently, the market mechanism has to be replaced by another coordination device, let it be regulations, compulsory requirements, delegation to an agency, provision of a typical public good by the State.... A special field of economic theory has specially be built in order to enlighten public choices. It recurrently shows that it is quite difficult to design optimal devices which would be as efficient as markets for purely private goods. Consequently, the market failure related to their inability to deal with public goods finally leads to State or associations interventions...which might nevertheless be plagued by many other kinds of failures (C. Wolf, 1979; 1990).

But the existence of externalities is far more general than the diffusion of pure public goods. Some of them can be partially appropriated but nevertheless have positive or negative external effects. For instance, it has been recurrently shown that education exerts many spillovers upon innovation, health, and consequently growth and productivity at a society wide level. If individuals freely decide to both consume and invest in education, the level of aggregate investment will be inferior to the optimal level for the whole economy. Again, the pure market mechanism has to be mitigated or complemented by collective intervention in order to restore more efficient results: subsidies to schools or students, public fundings of the educational system, role of

associations in delivering the adequate level of education. Mutatis mutandis, the same arguments could be put forward for health care: in the absence of adequate insurance or welfare, individuals will tend to underinvest in prevention and health maintenance, since the general level of health is the equivalent of a public good.

The same inefficiency of markets prevail when these externalities can be negative: if clean air and water are considered as free goods, then firms and individuals will prefer to save costly resources instead of preserving environment. Again, some public intervention is needed: either standards limiting pollution levels, or implementation of allocating polluting rights. This seems to mimic a quasi market mechanism, but it is not at all the equivalent of a conventional supply and demand adjustment since Nature does not react in accordance with economic objectives, nor its likely behaviour is easy to forecast given the basic uncertainty about the underlying physical and the chemical mechanisms (weather warming, ozone layer, urban pollution, ect...). In all these instances, a pure market economy would underinvest in health, education, infrastructures i.e. every time positive externalities are observed and conversely would over-invest in polluting or hazardous equipment, i.e. in case of negative spillovers. Given the importance of these issues in contemporary societies, this is a clear limit to the omnipotence of markets.

## **5. Increasing returns to scale cannot be monitored by pure and perfect markets.**

A special configuration for positive externalities relates to the increasing returns to scale associated to the most powerful engine of growth for capitalist economies, i.e. division of labour. This idea has to be traced back to Adam Smith, when he put forward the basic hypothesis that labour division allows specialization and consequently large productivity increases, which are positively related to the size of the product market. The Wealth of Nations consequently delivers a paradox : the stability of a monetary order



induces the diffusion of markets which in turn allows labour division and increasing returns to scale. But this hypothesis is quite disruptive for General Equilibrium Theory: if the returns to scale are superior to one, then not any pure and perfect competition equilibrium can be sustained (G. Debreu, 1959). In really existing economies, one large monopoly firm would capture the whole market and then would charge an oligopolistic price: this would deplete the level of demand and the output below the optimum level of the society. In old fashioned terms, in the presence of increasing returns to scale, competition leads to oligopolistic or even monopolistic configurations...which will be far away from the optimum toward which market mechanisms were supposed to converge according to the two welfare theorems.

This argument has been rejuvenated by recent researches about the sources of capitalist growth. It has been shown that in the absence of increasing returns to scale or positive externalities, the growth of any national economy would exhaust itself (P. Romer, 1986; B. Amable and D. Guellec, 1992). This was precisely the Schumpeterian argument concerning the viability of capitalism : the competitive process is inducing the search for innovation, that in turn delivers monopoly rents which can be invested ; but followers usually copy the path breaking innovation and the diffusion process progressively erodes profit and ultimately puts an end to the long boom triggered by the initial innovation. Endogenous innovation and technical change are at the core of two basic features of capitalism, both development (i.e. a long term trend toward rising productivity and standard of living) and the inescapable recurrence of booms and depressions. This vision is far away from the smooth process postulated by conventional economic theory.

Another paradox of contemporary economic theory emerges. If the emphasis is shifted from a static adjustment process to the sources of innovation and endogenous growth, then increasing returns to scale have to be taken into account as a prerequisite

for any cumulative and sustained growth. Provided that the firms take for granted the external effects exerted by their own decisions, a series of static equilibria can be obtained by a totally decentralized market economy (P. Romer, 1990; R. Lucas, 1988). But the related equilibria will no more correspond to Pareto optima, since everybody will generally underinvest in research development, which exhibits positive external effects. Thus, alternative coordinating mechanisms have to be designed in order to fight market failures: subsidies to innovating firms, public laboratories, credit incentives. In some extreme cases, the rivalry about innovations may induce a duplication of RD expenditures and consequently a too fast innovation rate... Here comes a possible structural unemployment: more old jobs are destroyed by innovation than created by its implementation (Ph. Aghion and P. Howitt, 1993). In other words, markets are good for triggering innovation but might be very bad in monitoring the optimum pace for technical change. Too much market mechanisms might hurt growth, i.e. the inner mechanisms for capitalism dynamism and survival. Modern economic theories have definitely discarded the Panglossian optimism of old conventional neo-classical theory: there exists an optimum degree for market competition, which is not necessarily the maximum one.

**6. When it is costly to implement contingent future markets, speculation and instability are likely.**

Basically the previous limits of market mechanisms derive from the difficulty of coordinating behaviours in case of external effects within a given geographic space. Mutatis mutandis, the same difficulties emerge when time is concerned, i.e. every time a decision now exerts a possibly irreversible impact upon the outcome and decisions taking place to morrow. One has to remember that in General Equilibrium Theory the auctioneer is in charge of centralizing all the supply and demand for all the subsequent periods according to contingent markets upon all the states of nature which may occur

from now until the most remote future. This elegant device is actually abstracting from the most pressing problems addressed to market, when the future is basically uncertain and every economic agent has to take irreversible decision, in the absence of any contingent market (D.M. Newberry, 1989).

Actually, only a few future markets are operating in contemporary economies and basically concern raw materials, stocks and bonds and quite recently financial future markets. Consequently, firms and the traders cannot fully insure themselves from uncertainty in products and labour markets: too few intertemporal markets are in charge of equilibrating supply and demand over the long run (F. Hahn, 1989). Thus, agents have to use any available information in order to work out expectations for all the subsequent periods and make their decisions about investment and commitments via future contracts. But now, contrary to the totally deterministic Walrasian economy, these expectations and plans can turn out to be erroneous, inflicting severe losses both to individuals and even the national economy given the possible externalities created by inflation, hyper-inflation, deflation and cumulative depression (J. Bryant, 1983).

As a matter of consequence, macroeconomic dynamics might exhibit large instability, due to the very efficiency of market mechanisms : the relative price of goods will tend to reflect both consumer preferences and marginal costs but the cybernetic process of inventory, production and employment adjustments might lead to over reactions specially on financial markets, which diffuse themselves to labour and product markets: for some critical values of the speed of reaction to market disequilibrium, the economy may fall into a low employment trap (G. Duménil and D. Lévy, 1990). This might reflect the process which took place in the United States from 1929 to 1932: such a free marketer but smart economist as I. Fisher (1933) was thus obliged to discard his pet hypothesis about the self equilibration of markets and to work out a quite innovative model anticipatory for Keynes' General Theory. Once observing a debt deflation, all

firms and consumers will have interest in restructuring their debts by distressed sales, therefore exacerbating the fall in production and employment. Clearly, markets are not always and everywhere delivering full-employment and efficiency.

Facing these disturbing results, a free marketer economist usually puts forward two propositions. First, all these disturbances are seemingly emerging from inaccurate expectations, i.e. an ad hoc hypothesis about the irrationality of economic agents. As time elapses, most of them will learn about the real functioning of the economy and consequently will converge toward fully rational expectations, thus a more satisfactory configuration for the economy. Unfortunately, this conventional argument coined and illustrated by Lucas (1984) has not proven sufficient to restore the stability of a market economy with no contingent market but rational expectations: a multiplicity of equilibria, basic instability and very frequently not any Pareto efficiency property are frequent features of such a configuration. The rational expectation hypothesis does not help in preventing the existence of exogenous arrangements and conventions (P.A. Chiappori, 1991).

But a second strategy in the defense of markets has been proposed: since all these disappointments come from an insufficient number of future and contingent markets, why not to create new ones and restore the basic efficiency of a complete market economy? Incidentally, this has been the rationale for some financial innovations during the Eighties and led to the creation of still more sophisticated markets. But this has not been a general trend for product markets, nor labour markets and this is quite easy to explain. One of the core hypothesis about market efficiency is that the transaction costs to design contracts, to organize market places and to synchronize a complete set of supplies and demands are nil or very small indeed. Nevertheless, this is not necessarily so: "The operation of the market costs something and (...) forming an organization and allowing some authority (an entrepreneur) to direct the resources, certain marketing

costs are saved" (R. Coase, 1937). Even if until now few studies have been devoted to measuring these transaction costs (R. Coase, 1992), this argument is strong enough to completely relativize the inner superiority of the market : networks, association, quasi-vertical integration, clubs and in some instances State regulations might be superior to the market (O. Williamson, 1985).

Thus, future markets will likely be limited to a very restricted set of good unless technical change, concerning specially communication and computer science, deliver a sharp reduction in transaction costs. If so, the financial markets are bounded to focus all the expectations about the future configuration of the national and international economies. But then, another threat challenges the stability of such financial instruments by opposition to the self equilibration of typical market goods: self fulfilling prophecies might occur (D. Kreps, 1977) and induce financial bubbles far away from the equilibrium price which would be rationally deduced from a careful analysis of the underlying fundamentals (A. Orléan, 1990). Consequently, any disturbance might trigger the bursting out of such bubbles, a defect which recurrently affects all financial market since their creation (C.P. Kindelberger, 1978). Instabilities are still exacerbated when strong horizontal interaction occurs in the formation of traders' opinions about the future of the market and more generally the prospects of the economy (A. Orléan, 1992).

This dynamic inefficiency of markets is far from being restricted to finance and credit, since it may apply even to new technologies. If for instance, the rate of returns of a technological device (or social convention) is related not only to the inner pay back for each individual but is positively linked to the number of adopters, then a series of seemingly efficient choices via market mechanisms might ultimately prove to deliver quite unsatisfactory results (B. Arthur, 1988). Let us think for example about AZERTY and QWERTY keyboards, software standards, electrical norms, physical units, and so

on... (P.A. David, 1988). All these instances show that a minimal public intervention, if not indicative planning, would deliver a more efficient configuration than a sequence of spot markets. Again, time and externalities basically challenge the assumptions about the omnipotence of market.

## **7. For some markets, efficiency and equity cannot be disentangled.**

For conventional economic theory, distributional equity issues are totally separable from efficiency in a Pareto vision: any competitive equilibrium delivers outcomes in which the well-being of any agent cannot be improved without impairing the situation of another one. The economic theory has only to consider efficiency, the philosopher and political scientist will take into account equity issue. If for example the distribution of income and wealth is not accepted by public opinion and citizens, optimal redistribution scheme can be implemented in order to shift the economy from one Pareto equilibrium to another, more satisfactory from a social justice point of view (C. Wolf, 1990). From this standpoint, market would be neutral with respect to social justice.

This vision has been challenged by many analysts: for societies, social justice is as essential as truth for scientific theories, whereas efficiency comes after such a basic requirement has been fulfilled. Thus, inefficient economy configurations could be accepted, provided they fit with the prevailing conception about fairness and social justice, really existing democratic regime and market economies are consequently facing a dilemma between economic efficiency and social justice. The conventional answer is well known: let the economist depict the related trade off and give the politician the task to select the optimal mixed between efficiency and equity (P.A. Samuelson and W.D. Nordhaus, 1992).

More recent researches totally challenge this clear cut distinction but implement contracted strategies. On one side, experimental economics suggest that initially even if the outcome of market mechanisms are perceived as unfair, when the game is played again and again, progressively agents consider that the outcome is finally fair (D. Khaneman, J. Knetsch and R. Thaler, 1986). Thus economic efficiency would shape the prevailing conceptions about social justice. Similarly, some theoreticians argue that law and jurisprudence are finally aiming at increasing the surplus or welfare of the economy (R.A. Posner, 1981): the institutions devoted to the implementation of justice would therefore enhance efficiency.

On the other side, it is clear that some extreme inequalities which are delivered by the strengthening of market allocation might finally hurt the acceptance of the principles of a market economy, specially if citizen can vote and express their dissents with the prevailing configuration of income and wealth. According to this vision, to extreme inequalities would finally do more harm than good to market efficiency: poor commitment and loyalty, insecurity, threat to private property and personal security. All these factors, finally call for more public interventions and spending, which induces the allocation of too many resources unproductive uses. These ideas specially apply to contemporary labour market. If unfairly treated, wage-earners will reply with poor productivity, low quality, high absenteeism and a multiplication of social conflict, thus, a more equitable income distribution can enhance private and global efficiency (G. Akerlof, 1984). Similarly, labour markets are not self adjusting as typical good markets, because workers have definite feelings about the unfairness of wage cuts which would destroy group solidarity (R.M. Solow, 1990).

Historical analyses suggest that one last market failure is precisely the possible inability of this mechanism to cope with the prevailing conceptions about social justice. For example, the widening of inequalities during early industrial revolution has been

responsible for many political and social flux...which finally might have hurt economic efficiency. Mutatis mutandis, the current transition of Eastern European countries toward a market economy has put forward the possible contradiction between the implementation of market and the preservation of a minimum degree of solidarity and equity. Finally, this reminds that social acceptance of markets is not automatic but supposes a voluntary adhesion to their values and consequences, i.e. a definite social fabric (M. Douglas, 1986).

Thus, the advances of researches in microeconomic theory have weakened most of the conventional reasons for believing in the absolute efficiency of markets. They are self-equilibrating and deliver Pareto optima only under very restricted conditions (M. Fleurbaey, 1990): it is a question of empirical analysis for each issue not of grand Theory. This opens a much more modest approach: markets may be the least unsatisfactory private information, given the inability for agents to draw a complete picture of a myriad of interdependent decisions in a quite uncertain environment. This is the argument first expressed by Hayek in his 1945 essay "The use of Knowledge in society" (F. Hayek, 1980), and recently rediscovered by the economic profession, outside the neo Austrian school (D. Lavoie, 1986).

Quite paradoxically in the 90's, the reliance to markets has become more a question of informed...or naïve belief than the outcome of mathematical demonstration. Under this respect, Eastern European governments may rightfully prefer the dynamism (and possible disorder) of markets to the stagnation into which ended the centralized planning



Table 5 – The promises and the deliveries of the free marketers

|                                  | <b>PROMISE</b>   | <b>OUTCOME</b>   |
|----------------------------------|--|--|
| <b>1. Capital labor relation</b> | <ul style="list-style-type: none"> <li>◦ Deregulation will allow full employment</li> </ul>  | <ul style="list-style-type: none"> <li>◦ No clear impact</li> </ul>  |
| <b>2. Forms of Competition</b>   | <ul style="list-style-type: none"> <li>◦ Deregulation, more practices</li> </ul>   | <ul style="list-style-type: none"> <li>◦ Re-regulation, less producers : from one oligopolistic form of competition to another</li> </ul>  |
| <b>3. Monetary regime</b>        | <ul style="list-style-type: none"> <li>◦ Control of monetary base is possible</li> <li>◦ It provides price stability</li> </ul>  | <ul style="list-style-type: none"> <li>◦ Monetary innovation prevents this control</li> <li>◦ Price stability, but mass employment</li> </ul>  |
| <b>4. State</b>                  | <ul style="list-style-type: none"> <li>◦ Minimal State will enhance growth and productivity</li> </ul>   | <ul style="list-style-type: none"> <li>◦ Lack of public investment</li> <li>◦ Poor private productivity due to the lack of education and infrastructures</li> </ul>  |
| <b>5. International regime</b>   | <ul style="list-style-type: none"> <li>◦ Smooth currency adjustments</li> <li>◦ Vanishing external disequilibria</li> <li>◦ Complete autonomy of national economic policies</li> </ul> | <ul style="list-style-type: none"> <li>◦ Large up and down of exchange rates</li> <li>◦ Unprecedented and stable polarisation of deficit and surplus countries</li> <li>◦ Stronger constraints upon national room for manoeuvre</li> </ul> |

planning era (J. Kornai, 1980; 1992). It is not a reason not to control by institutional design that the markets deliver an acceptable mix between short run efficiency, long run innovation and a minimal degree of social justice (J. Kregel, E. Matzner and G. Grabher ed., 1992). The need for Eastern Europe to build new rules of the game and institutions along with markets is more and more recognized by experts (C. Clague and G.C. Rauser, 1992).

## **V. THE FREE MARKET IDEOLOGY AGAINST A RATIONAL USE OF MARKETS ?**

The present analysis leads to an impressive paradox. At the very moment when the post WWII institutions are reconsidered and partially reformed under the pressures of deregulation, foreign competition and anti-keynesian political programs, the sophistication of modern economic theory warns about the numerous market failures which would affect societies devoid of any complementary or alternative coordinating mechanisms. Persisting unemployment, recurring financial crises, rising inequalities, underinvestment in productive activities such as education or research, cumulative asymmetry of information and power, these are some possible outcomes of a complete reliance to pure market functioning (Table 5).

Of course, the motto "let return to free market economies" has played some role in disciplining and restructuring most of the institutional forms inherited from the Fordist era. Similarly in quite all Eastern European countries the market has been used as a dissolving device for most Communist political organisations and centrally planed mechanisms. But it is now realized that the market per se cannot create the requisites which would warrant its long term efficiency: clear rule of the games, a stable monetary regime, adequate property rights, minimal solidarity via a welfare state, emergence of Schumpeterian innovators and not only lucky speculators.... It took nearly one or two

centuries to old capitalist countries to make familiar and acceptable the harsh logic of typical markets mechanisms. It is wise to expect that the great transformation which is currently taking place in Eastern Europe is not a matter of years but of decades (R. Boyer, 1993).

Even Western financial markets, in order to be efficient, have to be constantly reformed and adequately regulated by a large amount of institutional or technological devices. For example, the Wall Street crash in October 1987 has not been the repetition of the 1929 great depression, since many equilibrating mechanisms have been implemented by institutional design and consequently prevented the repetition of such a catastrophic episode. Similarly, the reforms undertaken after October 1987 have so far excluded that a new dramatic collapse of stock markets trigger a collapse in economic activity of 1929-1932 type. Even markets have to be constantly redesigned in order to be self equilibrating: this basic teaching from economic history is too frequently neglected.

Our knowledge about market implementation, functioning and efficiency will probably be totally transformed by the difficult and potentially dangerous experiments which will take place during the Nineties, in old industrialized countries as well as in previously "socialist" countries of Eastern Europe, but China too. In between, it would be wise for economists not to confuse the ideology of free marketers with the actual - and real but limited- capabilities of contemporary market mechanisms, which are embedded within a complex mix of alternative and largely complementary governance modes.

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