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**THE CONVERGENCE HYPOTHESIS  
REVISITED:  
*GLOBALIZATION BUT STILL  
THE CENTURY OF NATIONS?***

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

The paper distinguishes among three definitions for convergence: economic convergence, analogous systems combining democracy and markets, convergence in institutional forms and "régulation" modes. A survey of comparative long-term growth shows that convergence is not a permanent nor universal phenomenon, since it is restricted to a small set of countries, mainly after world war II. Similarly, even if the Fordist development mode has diffused after WWII, most institutional forms, and specially the capital labour relations continue to exhibit specific national idiosyncrasies. For instance, the decline of unions is not at all universal. Thus, the convergence theory is reassessed by a close examination of the possible mechanisms involved : most of them are uncertain and slow to operate. Basically, the idea of a "one and unique best way" should be replaced by a variety of punctuated equilibria, which take into account local specificities. The present phase of European integration clearly shows that convergence is not at all an automatic and simple process. We are still in the epoch of nations.

**UNE REEVALUATION DES THEORIES DE LA CONVERGENCE :  
GLOBALISATION MAIS TOUJOURS LE TEMPS DES NATIONS ?**

Robert BOYER

***R E S U M E***

Il importe de distinguer trois définitions : convergence des niveaux de productivité, similarité des systèmes politiques et économiques, identité des formes institutionnelles et des modes de régulation. Une revue des travaux économétriques suggère que la convergence n'est un phénomène ni universel, ni permanent, puisqu'elle ne concerne qu'un groupe limité de pays, intervient surtout après la seconde guerre mondiale, selon des mécanismes particulièrement lents. Même si dans l'après guerre le mode de croissance fordiste s'est diffusé, la plupart des formes institutionnelles et en particulier le rapport salarial, continuent à manifester de nombreuses spécificités nationales. Ainsi, le déclin des syndicats n'est pas général, tant leur rôle et degré d'institutionnalisation varient selon les pays. Ainsi la théorie de la convergence doit être réévaluée, car les mécanismes invoqués sont incertains et lents à opérer. Fondamentalement, il conviendrait de remplacer la vision de l'équilibre unique par une série d'équilibres ponctués prenant en compte des contraintes nationales variées. La présente phase d'intégration européenne montre à l'évidence que ce n'est pas un processus simple et automatique. Nous vivons encore dans le siècle des nations.

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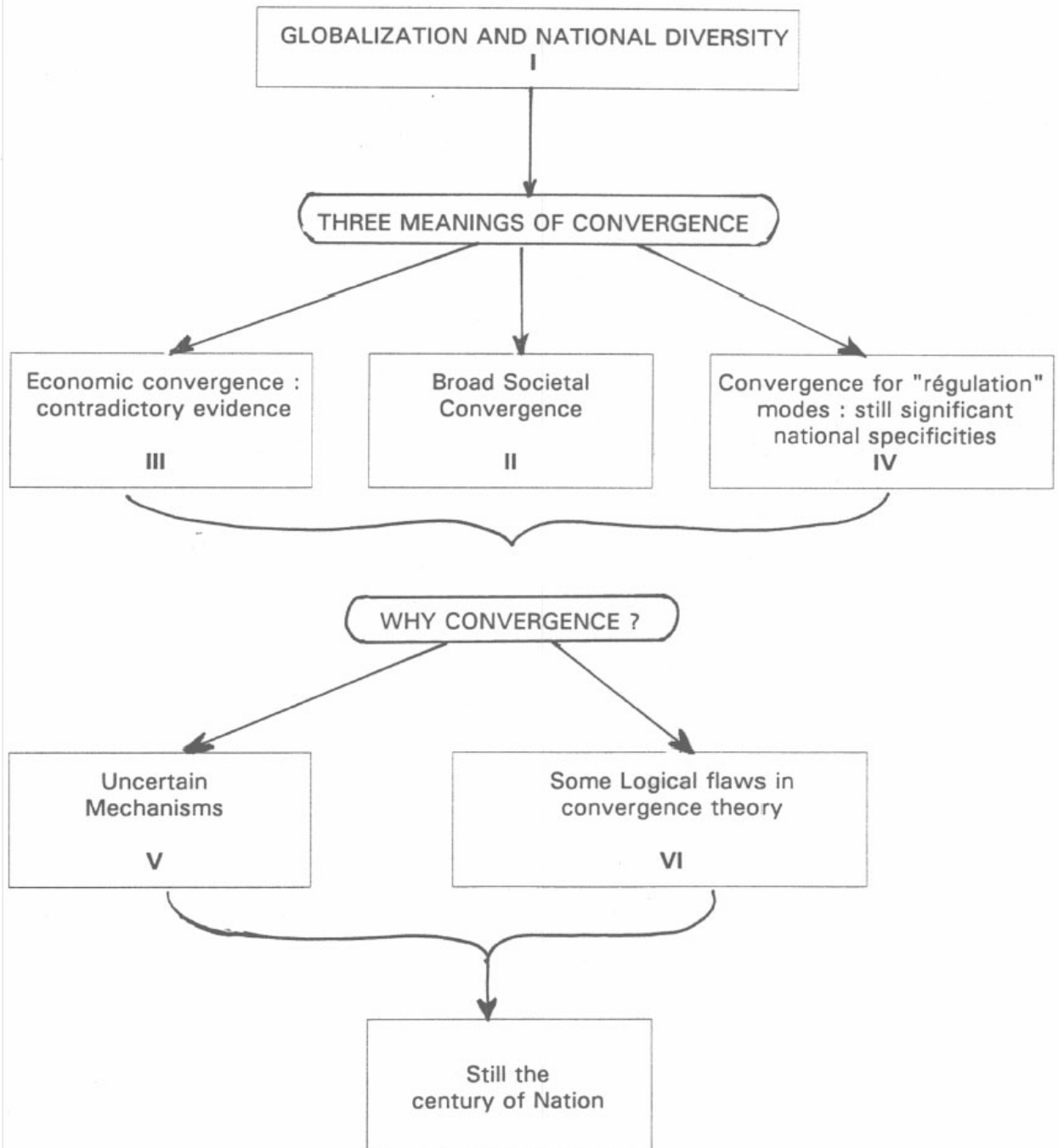
## **I - THE NATION-STATES IN AN ERA OF GLOBALIZATION**

The current era of globalisation has revived the political issue and the intellectual debates about the consequences of the growing economic interdependency upon the ability of national societies to preserve their genuine style and conventional social, political and economic organisations. An overwhelming evidence seems to suggest that many of competing firms adopt similar technologies, that life styles are homogenising all over the industrialised world, whereas the globalisation and sophistication of financial markets do tend to synchronise national economies. Thus, many scholars and politicians are induced to think that the national state inherited from the previous century will soon become obsolete, consequently reducing the ability by governments to implement any policy which would deviate from the now conventional wisdom: since lean production will ineluctably replace the old Fordist mass production of standardised goods, most if not all social and economic organisations would have to be redesigned in order to copy or at least mimic the currently most efficient firms in each sector. Roughly speaking, Japanisation of management, industrial relations, if not the whole society, would be on top on agenda.

Convergence theory is back again, with a special pervasiveness, the more so since the Soviet economy has collapsed and seems to prove the truth of Von HAYEK's prognosis about the impossibility of any viable socialist economy. At the very same moment, the Swedish economy which used to be perceived as a third way between capitalism and socialism, is experiencing a drastic readjustment in its social democratic institutions. Even the painful experience of the French socialist government tend to suggest that the more statist driven economies are now loosing strength and have to adopt more conventional economic policies and try to implement financial and political organisation more congruent with the building of a more integrated Europe.

Basically, the paper argues that these trends are observed but that they do not necessarily point out toward a full and complete integration, if a precise definition for

DIAGRAM 1 : THE ARGUMENT OF THE PAPER IN A NUTSHELL

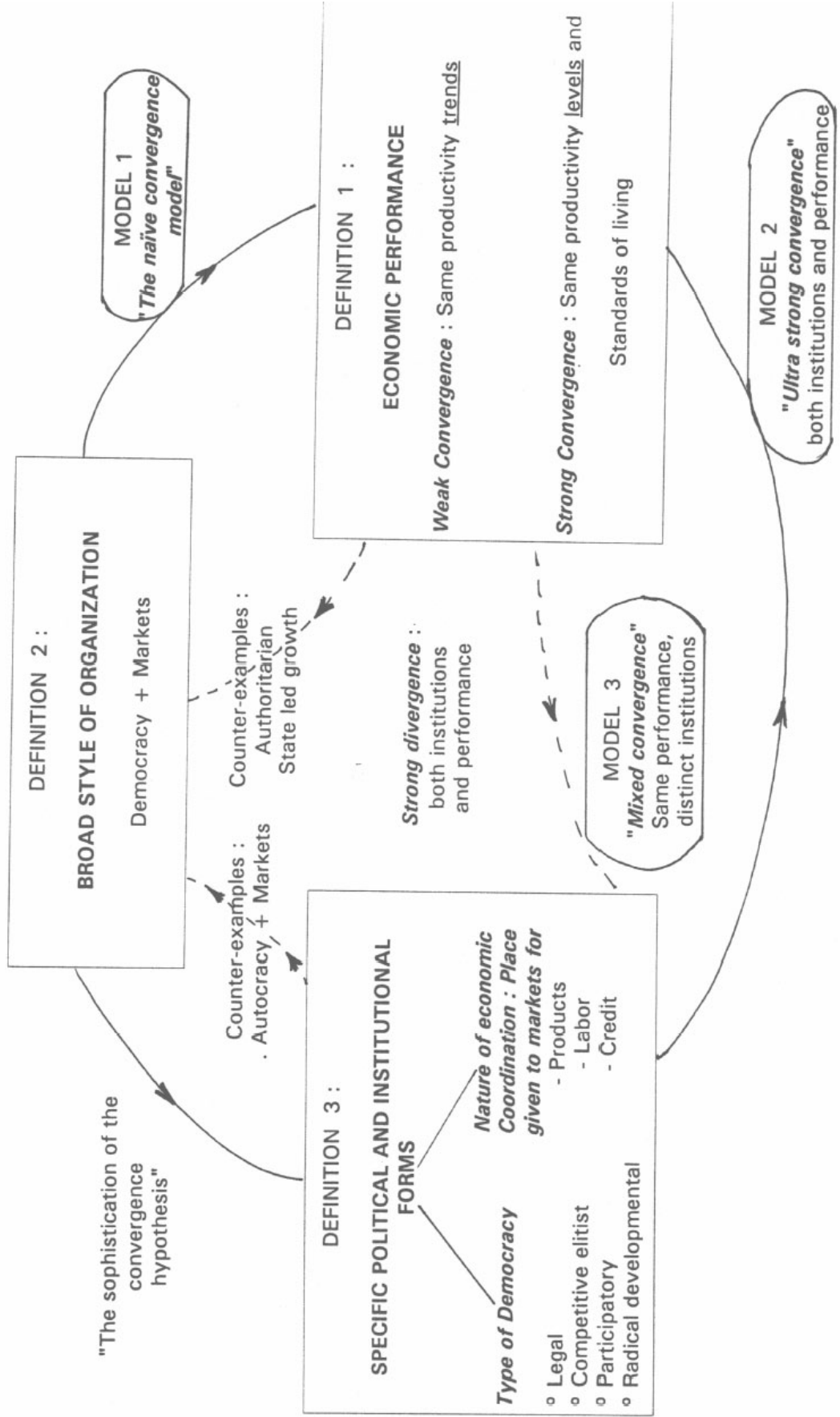




convergence is to be given. Still more, past historical evidences and the recurring prognoses about the end of national specificities should normally induce to more careful approaches and detailed analyses. But another series of arguments is still more powerful : among the various mechanisms able to foster economic convergence, few are powerful enough for delivering a complete homogenisation of economic performances, still less the adoption of a single one best way which would be identical all over the world and would apply to any region or nation. The demonstration can be kept at a fairly abstract level, whereas simple historical retrospects warn us against the possible fallacies about the central proposal which states that internationalisation is bringing a complete homogenisation of economic opportunities across nations. But it might be more convincing to complete such an analysis by a study of the recent trends in the car industry and still more precisely by an investigation upon the impact of Japanese transplants abroad. The threat of a Japanisation of industrialised societies thus appear largely exaggerated. Furthermore most of the other mechanisms which translate external competition into the redesign of economic institutions, do suggest a similar conclusion. Even then they try to strictly copy a supposed superior model, managers, workers and governments finally an hybridisation with the local management style and coordinating mechanisms: after a long period of trials and errors, the end product is usually unintended and largely genuine.

More precisely, the argument is organised along the reasoning sketched out by diagram 1. First of all, the ambiguities about the definition of convergence have to be spelled out, by carefully disentangling three distinct meanings: economic convergence, similarity in the style of development and finally the identity of the precise institutional setting which organises the interactions between economy and polity (section II). When precise tests about the convergence of main macroeconomic variables are built, it is hard to conclude to any clear converging or diverging trend, since everything is up to the social capabilities of each country, inserted into changing international regimes (section III). From a general point of view, it is not sufficient to note that the eighties have experienced an impressive shift from a configuration built on State interventions and in

DIAGRAM 2 : THE THREE DEFINITIONS FOR CONVERGENCE



many countries authoritarian regimes toward a quite different combination mixing markets and democracy. It is now well recognised that the collapse of the socialist bloc has made apparent the coexistence and competition of various brands of capitalism (M. ALBERT (1991)). The regulation approach has precisely provided a taxonomy for the contrasted national trajectories which are observed since 1973 and probably earlier, at least since Second World War. Under this precise definition for institutional forms it is quite difficult to contend to any clear tendency to converge (Section IV).

## **II - WHAT IS CONVERGENCE ALL ABOUT: THREE MAIN MEANINGS.**

Before presenting some arguments supporting this broad vision, it might be useful to disentangle among three distinct definitions for convergence which are not equivalent unless within the most extremist variant of the convergence theory (Diagram 2).

### **1. Productivity levels and standards of living: the economic convergence.**

According to this first definition, the globalisation of finance, labour, technologies and products would be so developed that each nation would now resemble to a small or medium size firm in an ocean of pure and perfect competition. Consequently, any Keynesian style intervention would be bound to fail, given that the competition is now international and that many foreign producers will capture the domestic market, as soon as the local producers do not cope with the costs and prices reductions imposed by their competitors. If the law of a single price for each commodity is binding, then production costs would equalise all over the world. If furthermore the knowledge about technology is a perfect public good, then conventional trade theory à la RICARDO suggests that productivity levels should converge under a free trade regime. Note that labour mobility via migration or capital mobility by foreign investment is not at all necessary to provide such a striking result. Of course, in contemporary capitalism, financial liberalisation and a significant flow of migrant workers would had to the convergence mechanisms associated to free trade for goods and services.

But the related hypotheses are quite extreme indeed. It is now recognized that not any really existing economy exhibits the features which are required in order to deliver a general equilibrium, under pure and perfect competition (R. BOYER (1992)). In a monetary economy with imperfect competition, asymmetry in power and information, along with increasing return to scale and public goods, the possible and multiple equilibrium are now closely related to the inner features of the constitution order, the system of incentives and finally the configuration of organisations (D. NORTH (1991)). The argument is especially relevant for a myriad of national states and firms with unequal size and power (J. STOPFORD & alii (1991)), which may struggle for and finally find niches, far away from the abstraction of perfect competition upon homogenised and standardised goods. Thus, the productivity levels across firms, sectors, regions, nations and continental zones might differ, even in the long run, without any clear trend to convergence (case of strong divergence in diagram 2).

## **2. Democracy and markets: the convergence in the broad style of development.**

For political scientists and many social sciences, convergence has a definitely different meaning: the important topic to be addressed at should not be pure economic performance but the basic constitutional order organising the interaction between polity and economy. According to this long standing tradition (R. ARON (1958), F. Von HAYEK (1973, 1978)), modern societies would be characterised by the wide diffusion of markets – which are supposed to provide and fostering economic efficiency- along with the building of a democratic order, that would manufacture political consent and indirectly a legitimisation of the capitalist order and mitigate the possible inequalities it generates.

Under this second heading, convergence is to be traced back to the collapse of authoritarian regimes, and their replacement by more democratic constitutions. For example, the evolution which took place during the Eighties in Chile, Brazil, Argentina, South of Africa, not to speak of the breaking down of the communist regimes in Eastern Europe, would deliver many examples of such an inherent trend toward democracy, i.e.

a common political order which would diffuse from old European and American democracies until the more remote states (for example in Asia). Similarly, the two last decades have delivered a severe reappraisal of the performance of centrally planned economies as well as state pushed industrialisation in the Third World. Comparing India with South Korea, continental China with Taiwan, Brazil, Mexico and Argentina with the Asian NIC's delivers some presumption that market mechanisms may help for industrialisation and technological change.

Again, the basic issue concerns the generality of such a trend and its significance. On the one hand, the observers may find opposite examples of shift from moderately democratic states to still less democratic ones, for example in the Islamic or African world. Still more, democracy is not an exactly well defined concept, since it is a question of degree and not only of nature. For example, one can make useful distinctions between radical developmental, legal, competitive elitist, and finally participatory democracies (D. HELD (1987)). This calls for a more precise definition for convergence: it would concern the precise configuration and interactions between political power and economic organization (see 3. *infra*). On the other hand, not any theoretical reason, nor historical evidence suggests a clear complementarity between the implementation of democracy, the diffusion of markets and economic performances. Of course the United States are a good candidate for such a virtuous mix of these three features, but the success of some NIC's such as South Korea has been obtained by authoritarian regimes, not to speak of Chile under the Pinochet regime, Brazil during the miracle or Mexico ruled by PRI. Some analysts have even argued that a form of public control and planning has been helpful in launching a state-led industrialisation (R. WADE (1980)).

One cannot find any better example for the ambiguity of such a general definition, which states that political and economic system are driven by democracy and markets (see model 1 of naïve convergence in Diagram 2), than the bursting out in Eastern European societies after 1989. Firstly, the contrasted patterns of the transformation in political structures point out the many configurations for democracy: the polish system is not a variant of the Russian one, nor the Tcheck a copy of the Hungarian system...and

these differences in the institutional setting seem to play some role in the pattern of economic reforms, i.e. the transition toward a market economy (A. CLESSE, R. TOKES (1992)). But secondly and precisely, markets are economic institutions which are based upon an explicit or implicit system of values, norms, legislations... : according to the surrounding rules of the game; the market for the same product or commodity will function quite differently (C. CLAGUE, G. RAUSSER (1992)). Thirdly, from a theoretical point of view, the market mechanisms can be restricted to some products, or extended to all of them, or still more enlarged to labour, credit and money (K. POLANYI (1946)). Even fictitious commodities -such as futures, polluting rights,...- can be traded according a formal market.

Thus, one of the main unsatisfaction about such a broad conception of convergence is to encapsulate under the same heading a whole spectrum of configurations which do not deliver at all the same political outcomes, nor efficiency in strictly economic terms. Consequently, a third definition has to be worked out.

### **3. Institutional forms and "régulation" modes: another view for convergence.**

According to this vision, the interactions of political and economic interests can take a multiplicity of configurations according to the precise balance between market and democracy (A. PRZEWORSKI (1991)) and the mix between public regulations, associations, private and public hierarchies, and finally markets (R. HOLLINGSWORTH, R. BOYER (1993), S. ZUKIN, P. DiMAGGIO (1990), P. DiMAGGIO, W. POWELL (1991)). From an economic point of view, the "régulation" approach suggests that five major institutional forms can be combined in order to generate a series of dynamic patterns of adjustments (R. BOYER (1990)). For example, the mix between market mechanisms, collective agreements and state regulation may vary drastically for the different markets of product, labour, credit.... Various national economies would then converge, if and only if, their basic institutional forms would be similar and deliver the same pattern of reaction to foreign competition, unexpected disturbances, as well as internal political conflicts and economic unbalances. Strong

convergence would prevail when the mutual interaction of institution design with market competition lead to similar performances and finally a convergence in productivity levels and living standards (see model 2 about strong convergence in Diagram 2).

But, this framework allows other configurations, which are of special relevance for our purpose. For example, the same economic performances or at least long run viability can be delivered by quite contrasted institutional settings. Such a model of mixed convergence might prevail for heterogeneous countries which are involved into a free trade agreement (NAFTA for example), or more complete financial and monetary integration, but without any strong harmonisation process (the current situation for the European Community). But the forms of competition and the political system might be such that the only method for coping with external competitiveness is in fact a relative or absolute decline in economic performances, associated to a strong institutional inertia. The British economy is a good candidate of such a case of partial divergence (B. ELBAUM, W. LAZONICK Eds (1987)).

But still another case can be theoretically built and is actually observed: both core institutional forms and performances do not converge with the prevailing development model. Such a strong divergence can be observed at both ends of the spectrum of economic performances. Many poor African countries do exhibit quite genuine institutions and are undergoing severe underdevelopment problems. The diverging pattern of a quasi complete continent is rarely mentioned by social scientists, but econometric studies usually consider African countries as distinct and find quite significant dummy variables (R.J. BARRO (1991), J. BRADFORD DE LONG, L.J. SUMMERS (1991))... But they are a poor substitute for a more ambitious explanation of such long lasting differences in their institutional setting. At another extreme, Asian NIC's clearly exhibit genuine business systems (R.D. WHITLEY (1992)), and more generally State-interventions (F.C. DEYO (1987)) and consequently, experience faster growth than old industrialised countries. The conventional explanation is simple enough: these countries would simply be catching up, which corresponds to a large fraction of their dynamism...but does not exonerate from an analysis of their genuine institutions (J.

WORONOFF (1992), E.F. VOGEL (1991)). Incidentally, even the very successful Asian countries are not devoid of major unbalances, or even creeping contradictions (T. WATANABE (1992) W. BELLO, S. ROSENFELD (1992))...and the Japanese economy is not necessary an exception (R. BOYER (1992)): the genuine strains and disequilibria affecting these economies are another indirect evidence for durably distinct institutional and economic configurations.

Quite intuitively, and of course this hypothesis will be investigated furthermore in the subsequent section of this paper, the world is far from exhibiting a strong convergence, when one considers the detailed and complex interaction between political and economic institutions. This can be checked more accurately by a closer investigation of some broad economic evidences as well as econometric studies.

### **III - ECONOMIC CONVERGENCE IN HISTORICAL RETROSPECT : AN AGNOSTIC VIEW.**

According to the simplest and more common view about the convergence of socio-political system, competition and emulation about alternative configurations should lead simultaneously to a large homogeneity in the institutional setting and a broad convergence in standards of living, or at least an absence of cumulative inequalities among countries. When for example, former socialist countries have adopted the strategy of a complete transformation of their inner organisation and implemented more or less ambitious plans for the transition to a modern society, combining democracy and markets, the initial belief of politicians and public opinion was clear enough: this would progressively deliver ways of life and productivity standards analogous to those prevailing within the western economies. Is it so true that capitalist democratic systems tend to converge toward roughly the same configuration for main macroeconomic variables ? This vision is not totally falsified by theoretical reasoning and empirical measures but the process is far from displaying the automaticity which should be so convenient for policy makers.



## **1. Contemporary growth theories do challenge the convergence hypotheses.**

Since the early foundations of political economy, the issue of convergence and stability of the capitalist growth process has been frequently and harshly debated. For MALTHUS and MARX for example, the industrialisation was conceived as an uneven process: the cumulative growth of the most successful industries, regions or nations was paid by the immerisation of more archaic skills, sectors or communities. Quite on the contrary, RICARDO was contemplating a smooth process of growth which would finally lead to a stationary state with zero growth, nor any institutional or technological change. Any economy was bound to converge toward such an equilibrium, due to the decreasing marginal returns associated to agriculture.

Modern growth theory exhibits an equivalent controversy even though cast into a more rigorous and elegantly formalised framework. In the forties, neo-keynesian authors such as HARROD and DOMAR had been fairly impressed by the stagnation and instability of the inter-war period, and thus were induced to consider that the dynamic equilibrium of consumption and investment decisions usually deliver a quite unstable macroeconomic path. Consequently, either the economy was experiencing an explosive growth or it was trapped into a cumulative and self-defeating depression. But of course, later on, when the unprecedented growth took place after WW II, neo-classical economists have proposed a much more peaceful description of the development process: provided that all the markets should be submitted to perfect competition, and if the same technology is available for each country then every economy should finally grow at the same rate imposed by the technical change, once corrected by demographic trends. Therefore, under these idealised conditions, the neo-classical theory provide one of the simplest rational for economic convergence in growth rates.

Nevertheless, this framework has been challenged by contemporary theoreticians who were not satisfied by such an automaticity in technical change, which was supposed independent from any investment or specific effort in order to improve technological efficiency. If for example, a country does not save and consequently under-invest, is it that sure that it will benefit from the same technological opportunities as a more

innovative and virtuous country? Probably not since learning by doing will be less efficient, whereas the lack of domestic technological expertise will probably prevent to usefully capture the advances of basic knowledge and technology at the world level (OCDE (1991a)). Basically, for the new growth theoreticians technological change is endogenous, i.e. the equilibrium growth path is dependent from past efforts in research and development, education, product differentiation (for a comparison with previous theory see P. DIAMOND Ed. (1990)). Thus, the growth rate of productivity may differ from one country to another, without any clear global convergence.

Of course, if the countries adopt similar educational and technological policies, they may follow similar growth path, but less wealthy countries might be caught into an under-development trap, which prevents them to capture the increasing returns to scale available, had they invested more in infrastructure, health, education, research. This generalisation of previous growth models exhibits the possible coexistence between fast growth and low growth countries, even in the long run. Thus some economies might follow the same pattern and catch up, whereas others are falling behind. Both convergence and divergence tendencies could be observed through time and space.

## **2. After WW-II, productivity tended to converge among major industrialised countries.**

Consequently, the convergence or divergence of performance indicators is a matter for empirical and historical investigation. Fortunately, some economists (A. MADDISON (1981), (1991); M. ABRAMOVITZ (1989); W.J. BAUMOL & alii (1991)) and economic historians (P. BAIROCH (1976)) have built GNP per capita statistics over more than one century, for the most advanced industrialised economies. In fact, their findings seem to confirm an eclectic approach: according to the period and the economy considered, might prevail either convergence or divergence. More precisely, some key conclusions are to be stressed upon:

° During the XIXth century, for the whole sample of 11 countries, productivity levels tend to diverge, especially from 1830 to 1880, which suggests the coexistence of contrasted industrialisation patterns (Graph 1). But rather surprisingly, when only the top 8 countries are taken into account, productivity converges, and it is specially so from 1880 to 1913. One realises how contingent to a set of countries and of periods, any convergence hypothesis is dependent upon.

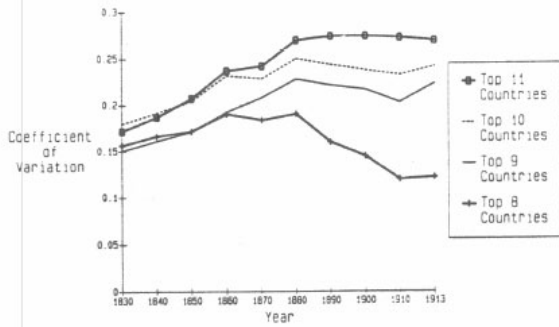
° After WW II, economic performance indicators are strongly converging, with the possible exception of the British economy, which is relatively lagging behind (Graph 2). According to the predictions of a pure catching up model, the more backward economies such as Japan and Italy are growing faster than others from 1950 to 1980. Since these countries and specially a former have imported some technologies and institutional devices from western economies, one understands better the success of the convergence hypothesis.

° Nevertheless, it is important to note that the methodology adopted present a significant bias: only the currently successful industrialised countries are considered, in such a manner that the convergence is partially a tautological result. This is the precise reason for a sophistication of the analysis, taking into account possible non-linearities (B. VERSPAGEN (1992)), the impact of efforts concerning innovation and education (B. AMABLE (1992)). Furthermore it is essential to consider a complete sample including both successful and under-developed or developing countries (R.J. BARRO (1991) ; R.J. BARRO, X. SALA-I-MARTIN (1991) ; J. BRADFORD DE LONG & Alii (1991) ; D. COHEN (1992a), (1992b)). The picture is then quite different indeed:

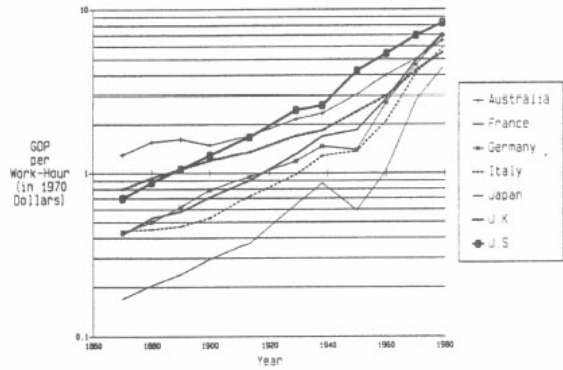
° Globally, the initial gap in productivity level is associated with rate of growth, which imply that the more advanced countries have experienced better performances than the poorer countries (Graph 3). Thus, for the world consider as a whole, the period

**SOME CONTRADICTORY EVIDENCE ABOUT ECONOMIC CONVERGENCE**

**GRAPH 1 : WIDENING DISPARITIES OF PRODUCTIVITY LEVELS DURING THE XIXth CENTURY**

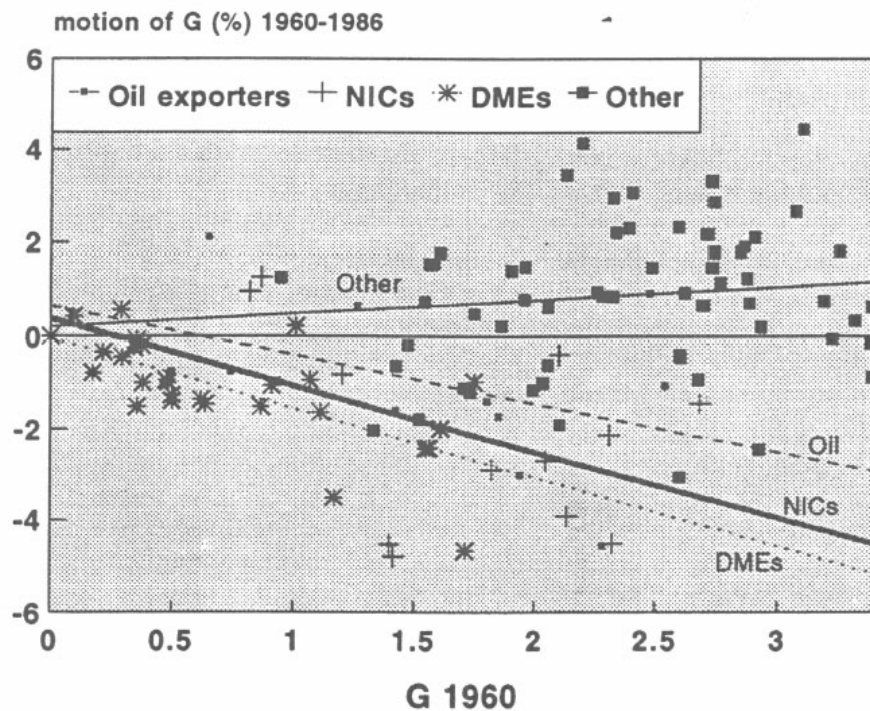


**GRAPH 2 : A STRONG TENDENCY TO CONVERGE AMONG PRESENTLY MAJOR DEVELOPED COUNTRIES FROM 1950 TO 1980.....**



Source : W.J. BAUMOL & Alii (1991), p. 96 et 92.

**GRAPH 3 : .....BUT MOST OTHER COUNTRIES ARE FALLING BEHIND, AND THUS DIVERGE FROM DEVELOPED AND NEW INDUSTRIALIZING COUNTRIES**



Source : B. VERSPAGEN (1992), p. 82

1960-1985 has experienced a widening gap between the top and bottom countries, i.e. diverging paths. Clearly this means that the backwardness creates a potential for faster growth but only if adequate economic strategies and probably institutions allow such a potential to be transformed into an effective development process (M. ABRAMOVITZ (1989)).

° Precisely this apparent discrepancy might be partially removed by taking into account measures of the investment effort, both in productive capital and in education. It turns out that, unless they have invested in human capital in the previous period, less advanced countries are unable to catch up and become closer and closer from the technological frontier, probably set by the hegemonic country, i.e. the United States (R.J. BARRO (1991) ; MANKIW G. & alii (1992) ; D. COHEN (1992a,b)).

### **3. Both convergences and divergences may coexist.**

The previous results can be checked against an historical retrospective of a convergence indicator (Graph 4). It turns out that the dispersion among countries was rather constant from 1900 to 1930 but increased drastically during the 30's. The significant reduction of intercountry productivity differences is therefore a very contemporary phenomenon limited to the period 1950-1980. Furthermore, the mid 70's seem to exhibit a possible U-turn in this trend, since dispersion indicators are again slightly increasing.

Symmetrically when about one hundred countries are scrutinized, it is possible to disentangle between three categories (B. VERSPAGEN (1992) : some very poor countries had made so few investment in manufacturing and/or in their education systems, that in any case they had no possibility to catch up. Others had higher education records and consequently could grow faster, due to their previous efforts. Finally, a few could have caught up if they had followed adequate policy (Table 1). This result is basically confirmed by other researches (B. AMABLE (1993)).

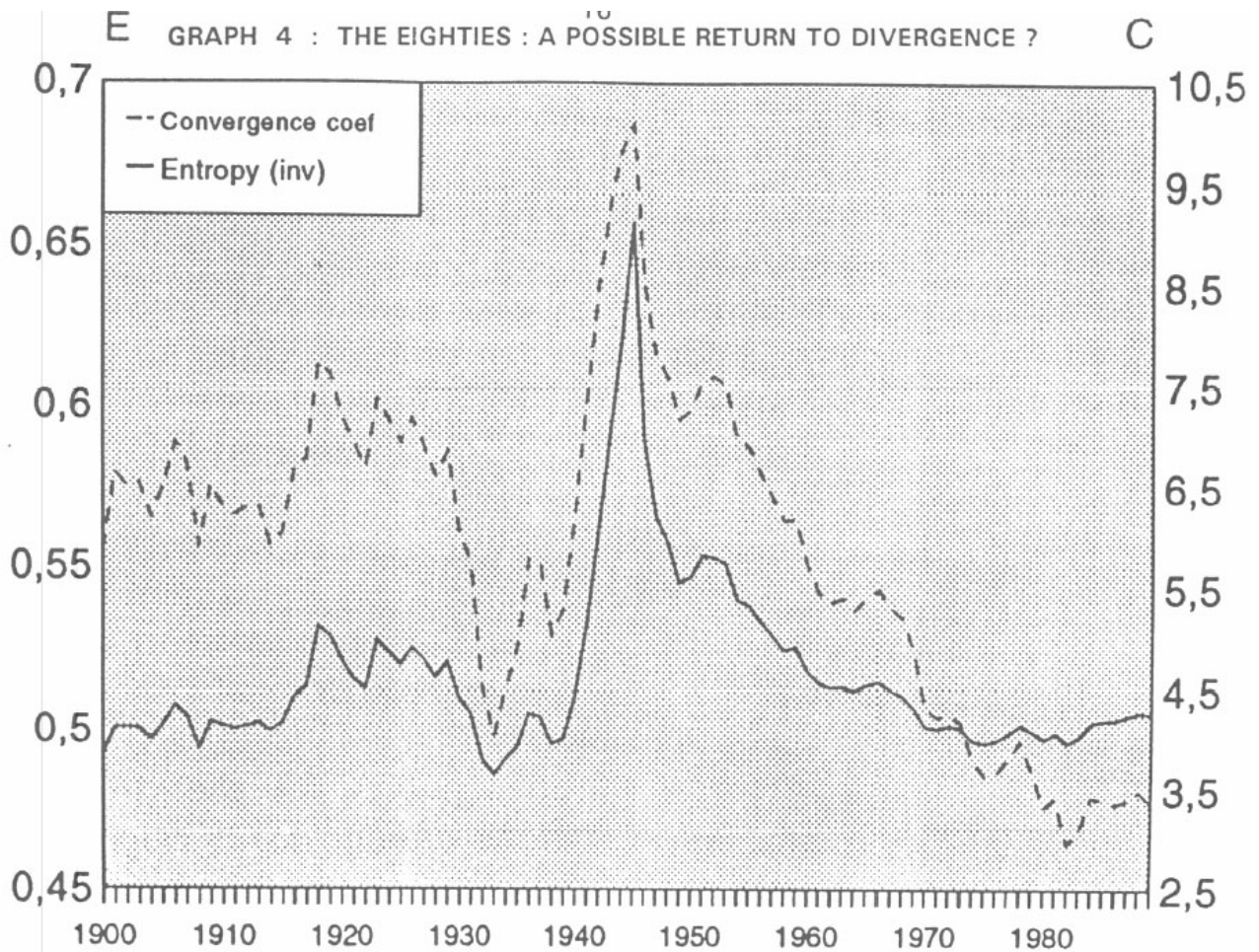


TABLE 1 : A DIVIDING LINE BETWEEN DIVERGING AND CONVERGING COUNTRIES

*Group 1. Falling behind without possibility to catch up*

Algeria, Benin, Cameroon, Central African Republic, Chad, Peoples Republic of Congo, Ethiopia, Gabon, Ivory Coast, Kenya, Liberia, Madagascar, Malawi, Mali, Mauritania, Morocco, Mozambique, Niger, Nigeria, Rwanda, Senegal, Sudan, Tanzania, Togo, Uganda, Zaire, Bangladesh, Nepal, Pakistan, Guatemala, Haiti, Honduras, Papua New Guinea

*Group 2. Falling behind with possibility to catch up*

Ghana, Burma, Thailand

*Group 3. Catching up*

Egypt, Jamaica, Mexico, Nicaragua, Panama, Trinidad & Tobago, Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay, Venezuela, Australia, New Zealand, Mauritius, South Africa, Tunisia, Zambia, Hong Kong, India, Iran, Israel, Japan, South Korea, Malaysia, Philippines, Saudi Arabia, Singapore, Sri Lanka, Syrian Arab Republic, Austria, Belgium, Denmark, Finland, France, Greece, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, Canada, Costa Rica, Dominican Republic, El Salvador

Source : B. VERSPAGEN (1992), p. 82

Finally, an eclectic or agnostic vision of the convergence hypothesis emerges from a brief survey of the major statistical studies made by economists and historians (Table 2). It would be one sided and thus erroneous to conclude to the existence of any general law and this conclusion challenge both the neoclassical optimism but the marxian vision of uneven development as well. The following conclusions might be useful for any discussions about institutional convergence.

- Through time, one seems to observe *an alternance of convergence and divergence phases* in the development path of the more advanced countries. This is probably related to the nature of the international regime and the idiosyncrasies which define the leading system production.

- The potential for catching up is not a sufficient condition for actually growing faster than the leading country. Within the same international regime, according to the *past legacy* in infrastructures, health, education,... and the *actual strategies* implemented by firms and government, a society may, or may not, benefit from its backwardness (A. GERSCHENKRON (1952)).

- The notion of *social capability* is thus given a possible and imprecise meaning : convergence is not at all a mechanical and automatic process but it usually results from successful attempts to copy and adapt technologies, organizations and processes invented elsewhere. Consequently, some national institutions are essential in growing the dividing line between falling behind and catch up countries.

- If the idea of convergence had to be rescued, the hypothesis of *club of similar countries* could be adopted following W. BAUMOL & alii (1991). If some societies share the same development style, and furthermore they belong to the same economic area, then there is some strong probability that they will converge. The underlying speed of convergence has recurrently be estimated around 2 %, what is to say that it takes more than a quarter of century to reduce by half the initial productivity gap (N. MANKIW & alii (1992); R.J. BARRO (1991)).

TABLE 2 : DOES PRODUCTIVITY CONVERGE ? A BRIEF SURVEY

AUTHORS	SELECTION OF COUNTRIES	PERIODS	CONVERGENCE	DIVERGENCE	COMMENTS
M. ABRAMOVITZ (1986)	16 industrialized countries at the end of period	1870-1976	Coefficient of variation of productivity level has decreased		The potential for catching up needs social capacity
W. BAUMOL (1986)	"	"	The growth rate is inversely related to initial levels		Presumption of convergence
B. DELONG (1988)	23 countries with similar per capita GDP	1870-1976	No clear tendency	No clear tendency	Convergence might be limited to a small group of countries
W. BAUMOL, S. BLACKMAN and E. WOLFF (1992)	1. Seven industrialized countries 2. Top 11 countries 3. 72 countries	1880-1979	Total factor productive coefficient of variation has declined		Convergence among a club of select countries
		1830-1913		GNP per capita coefficient of variation has increased	Divergence was associated with early industrialization
		1950-1980	Convergence among clubs of similar countries	Divergence for less developed countries	Poor countries lack education & adequate social arrangements
N. MANKIW, D. ROMER and D. WEILL (1991)	100 countries	1960-1985	Within OECD countries, catching up exists	Positive correlation between productivity levels and rates	Convergence is not general even for contemporary period
D. COHEN (1992)	100 countries	1960-1985	Slow convergence but moving target		Convergence is a partial explanatory variable
B. DELONG, L. SUMMERS (1991)	100 countries	"	Up to investment strategy	If too low investment	Investment is a privileged means for spurring growth
B. VERSPAGEN (1991)	59 countries	1960-1985	If the technological gap is small enough	If the initial gap is too large	Convergence is not general
B. VERSPAGEN (1992)	97 countries	1960-1985	Only for developed and newly industrialized countries	For most African countries	Existence of a dividing line between catching up & falling behind countries
B. AMABLE (1993)	59 countries	1960-1985	Only if sufficient investment in education	Divergence is possible & observed	Convergence is an oversimplification of limited relevance (some strategies, some countries)

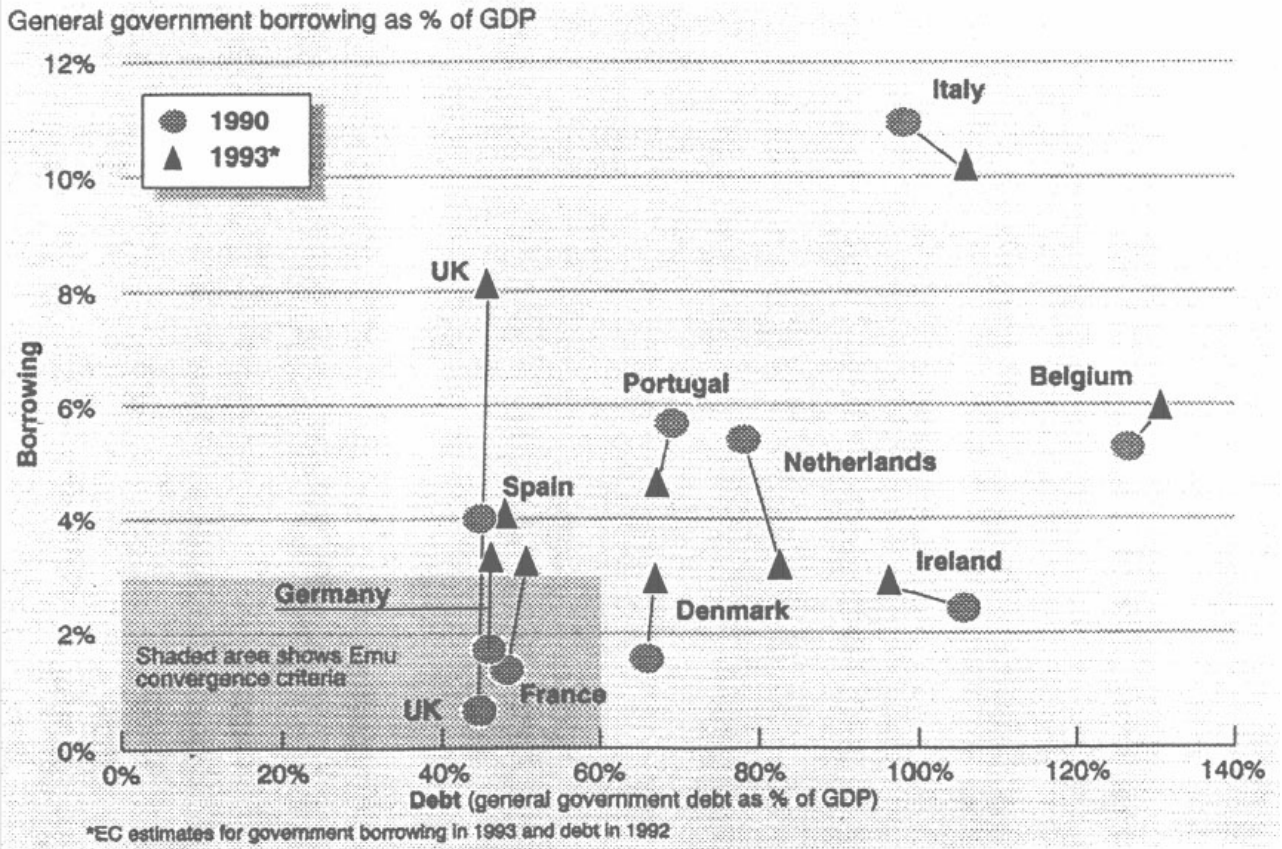


But again, this is not an evidence for complete convergence of any macroeconomic indicator. The European Community is a good example of some possible divergences, whereas globally the national economies become more and more interdependent and exhibit similar productivity performances. The Maastricht treaty is defining criteria for fiscal and financial policy for the member States in order to join the EMU. Unfortunately, such a statement has triggered large speculative movements, since some traders think that such a treaty is not credible. Similarly, facing the rise of unemployment, each government seem to have relaxed its fiscal policy, according to a quite contrasted national patterns (Graph 5). Paradoxically enough the objective of convergence has triggered an opposite move toward divergence...even though each national economy had already experienced a lot of converging trends since 1958 i.e. the first and constitutive treaty for European integration. The September 1992 and August 1993 financial crises have ended up into a quasi collapse of EMS, i.e. one step backward in monetary integration. The convergence of industrial structures, productivity levels and economic policy styles is a slow process indeed..., at least slower than ambitious monetary reforms.

One perceives the *complex interactions* between economic convergence and institutional diversity and conversely an inadequate institutional harmonization may induce economic divergence. The extension to eastern Germany of quite all western social and economic institutions provide a striking example of such a possible mismatch: the deep depression in the eastern part of the country seems rather closely related to the monetary and social integration. This is no better introduction to the next theme.

ANOTHER EVIDENCE FOR THE WEAKNESS IN CONVERGENCE MECHANISMS

GRAPH 5 : DOES EUROPEAN INTEGRATION LEAD TO FISCAL CONVERGENCE ?



#### **IV - HAVE INSTITUTIONAL FORMS CONVERGED AFTER WW II ? A SIMILAR DEVELOPMENT PATTERN, BUT SIGNIFICANT NATIONAL SPECIFICITIES.**

One reading of the previous statistical evidences is quite distinct from conventional convergence hypothesis, or the so popular but very mysterious existence of long waves "à la Kondratief". For the so-called "régulation" approaches, each epoch has its own institutional setting and thus a definite macro-dynamics: long run constancy of prices or cumulative inflation, moderate and unstable growth or stable and steadier growth, .... (M. AGLIETTA (1982) ; R. BOYER (1988) ; J. MAZIER & Alii (1993) ; A. LIPIETZ (1985)). Hence a possible framework in order to explain why institutional convergence has taken place after 1950, due to the progressive diffusion of Fordism from America to Europe and Japan (J. MISTRAL (1986)) and conversely why the structural crisis of such an international and national regime triggers a long period of institutional flux, which might induce observers to conclude to diverging trends.

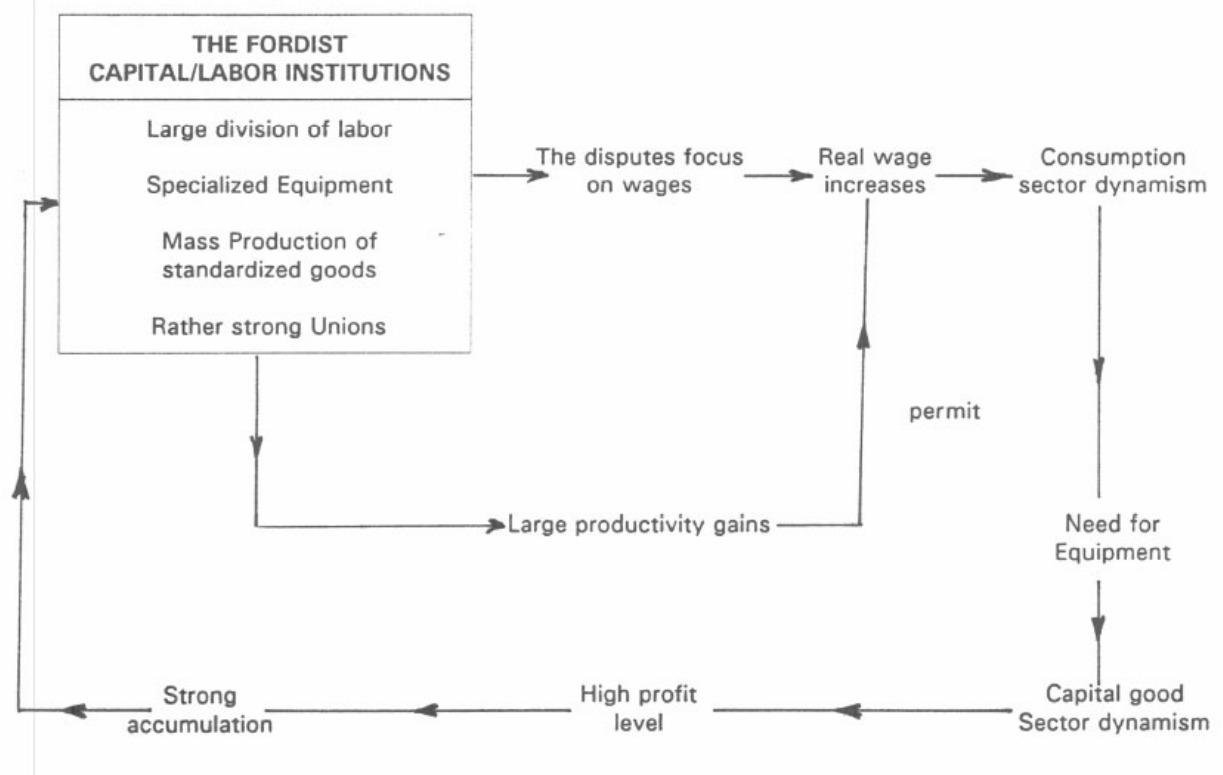
##### **1. The Fordist epoch...or the era of economic convergence.**

Basically, the impressive acceleration of growth after 1950 (see Graph 2 supra) is not the only outcome of a catching up which would compensate the interwar stagnation and the destruction associated to WWII but the consequence of a genuine development pattern, the core of which is to be looked at around the transformations in the capital/labour institutions (Figure 1). The large industrial firms can push forward a new stage in the division of labour, via an extensive use of specialized equipment, along with a standardization of mass produced goods. Basically, the workers and the managers conclude an implicit or explicit social pact: the former accept managerial authority and an unprecedented division of labour, the later agree to provide increasing wages via de facto indexing with respect to price and to productivity. Usually, strong unions and/or pro-labour laws passed by the States do embed this compromise into a complete web of interdependent institutions: creation of fully-fledge welfare, diffusion of collective agreements, accommodating monetary policy, active investment or intervention by the state in education, health, transport.

## AN INTERPRETATION OF POST WORLD WAR II PERIOD

1. A general adoption by industrialized countries of a similar mode of development, based upon mass production and consumption

Figure 1 : THE ROLE OF THE CAPITAL/LABOR INSTITUTIONS IN THE MACRO DYNAMICS



At the same epoch, the implementation of the Bretton-woods system and initially the Marshall plan creates simultaneously a rather coherent international regime and an incentive for European countries and Japan to follow the American track of mass production and consumption. Contrary to the initial expectations that the reconstruction would end up into stagnation and instability, all these transformations in the relationships between States and markets led to a genuine growth regime and development mode. It has been argued elsewhere such a removal of the threat of cumulative depression is up to a shift toward a Fordist capital labour compromise (R. BOYER, J. MISTRAL (1982) ; R. BOYER (1989)).

Broadly speaking, most OECD countries finally follow the same path and try to implement and adapt their own brand for mass-production. This relative institutional convergence is reached by complementary mechanisms. Firstly, the American way of producing and living is clearly a model for modernization, after a short period of political turmoil both in Europe and Japan during which this future is under severe attack by leftist parties and unions. Managers, civil servants, unionists and politicians, frequently go to and visit the United States in order to capture the flavour of the Fordist methods. Secondly, Italy and France, Germany and Japan are facing similar constraints: how to launch mass production after a period of war destruction and limited financial resources ? One could imagine that such a similarity of model and context may induce some homogenisation in the heterogeneous political and social structures inherited from the past.

This could well be the hidden reason for such an unprecedented convergence across nations but also among regions within the same national economy (R.J. BARRO, X. SALA-I-MARTIN (1991). Considered in isolation, nor technological change and organizational innovation, neither the conceptual revolution associated to Keynesianism would have been sufficient to propel such a drastic shift in "régulation" mechanisms. Only the rather miraculous mix of Pax Americana, credit money, fordist capital/labour compromise, oligopolistic competition and finally structural and cyclical state interventions has delivered the Fordist growth regime (see again figure 1). But this level

of analysis is still fairly general and calls for more precise analyses about the actual transformations which took place after WW II.

## **2. The underlying institutions forms are politically and socially constructed.**

If economic mechanisms were conceived in complete isolation from the rest of the society, then institutional convergence should be fast and quite clear. As soon as each national economy is competing with foreign competitors under fair conditions, only the most efficient private organizations and institutions would survive. Really existing economies do not follow the smooth and nice pattern contemplated by pure theory, because most economic institutions simultaneously organize coordination, distribution of power, and information within and among various spheres of political, social and even private activity (D. NORTH (1991) ; M. GRANOVETTER, R. SWEDBERG (1992) not to forget K. POLANYI (1946)). More basically it can be argued that the logic of most institutions is not to full-fill economic efficiency but to make possible the interactions of conflicting interests, via the imposition of rules of the game. Even imperfect and partially inefficient, they are nevertheless the corner stone of any society. This is specially so for modernity which is defined by the construction of democracy and markets, i.e. a complex and sometimes contradictory blending between political objectives and strict economic interests.

Thus, according to the precise chronology of the political process after the end of the second WW, each advanced economy has experienced a very specific institutionalization of the basic Fordist forms. It is not a real surprise if the monetary regime is not the same in the Germany and France, if the central State is more active in the later than in the former. Similarly, the antitrust laws typical for the United States have not any equivalent for Germany (H. DUMEZ, A. JEUNEMAITRE (1991), (1993)) and still more Japan, which corresponds to a more explicit oligopolistic competition (M. AOKI (1992)). As a consequence, the macro dynamics of credit and interest rates, price formation, profit and investment are not the same across major OECD countries. The same Fordist development model is embedded into rather specific "régulation" modes

(R. BOYER (1988)). This explains why the same external shocks concerning the price of oil, real interest rates or the uncertainty associated to the end of the Gulf War do not deliver the same sectoral adjustments (R. BOYER (1991)), nor the same macroeconomic pattern (P.Y. HENIN, J. CHATEAU (1992) ; L. REICHLIN (1989)).

These persisting national specificities in basic institutional forms are rather easy to exhibit for the capital labour relation (Table 3). A survey of the many comparative studies about work organization, the stratification of skills, as well as wage formation and life style and consumption norms seems to confirm this general hypothesis. From a more theoretical point of view, contrasted configurations can be labelled and distinguished:

- Both *France and the United States* follow a rather *typical fordist path*, given strong division between conception and production tasks (Ph. D'IRIBARNE (1989)), quite adversarial industrial relations and genuine formula for indexing nominal wage to past inflation and expected productivity increases.

- *Austria and Sweden* belong to a significantly different variant, since the fordist methods are challenged and accommodated within a highly developed social democratic State, which is organizing labour mobility, active employment policies and large training and retraining efforts. Industrial relations are very centralized, and consequently wage bargaining exhibit a genuine pattern, i.e. a surprising sensitivity to external competitiveness and unemployment (R. BOYER (1991)).

- *West Germany and Japan* may define a strong hybridisation of the Fordist principles along with a long tradition of high skilled labour and competition via quality and differentiation (W. STREECK (1992)), or a mitigation of mass production with larger and larger product differentiation (M. AOKI (1988)). More generally, Japan is a good example of the progressive transformation of an imported model for both technology (T. HAYASHI (1990)) and industrial organization (M. A. CUSUMANO (1989)). One can even imagine that after several decades of a continuous adjustment to local conditions, the industrial relations and the productive system, finally define a genuine "régulation" mode. What was in the 50's conceived as an embryonic and imperfect Fordism, transformed itself into a *flex-fordism* in the 70's and end-up into *toyotism*, with a

2. Nevertheless the institutional forms and "régulation" modes are distinctive across Nations

TABLE 3 :  
CONTRASTED INSTITUTIONAL SETTINGS FOR THE CAPITAL/LABOR RELATION

COMPONENTS OF CAPITAL LABOR RELATION	COUNTRIES							
	AUSTRIA	FRANCE	ITALY	JAPAN	SWEDEN	UNITED KINGDOM	UNITED STATES	WEST-GERMANY
1. ORGANIZATION OF THE WORK PROCESS	Not very taylorist	Taylorist Large gap between conception and execution	Highly taylorist in large firms	Team work of polyvalent workers more than taylorist	Early attempts to replace Taylorism	Balkanized via multiple crafts & work rules	Typically Taylorist and Fordist	Professional & craft markets more than Taylorist
2. STRATIFICATION OF SKILLS	Average	Large & institutionalized	Large	Moderate	Moderate	Precise boundaries	High	Moderate
3. LABOUR MOBILITY	High	Low	Regional (from South to North) Average	Average	Average/High	Average	High	Average
4. WAGE FORMATION								
(i) Indexing with respect to . Price	Rather complete	Complete if not permitted	Fully institutionalized	Complete	World more than consumer prices	Slow but complete	Partial and/or slow	Slow and partial (forbidden)
. Productivity	Not clear	Implicit	Not explicit	Explicit via bonuses	In the export sector	Not clear	Implicit but existing	Rather strong
(ii) Influence of unemployment	Significant	Moderate	Rather high	High	Significant	Low	Average	Apparently low
(iii) Indirect wage and welfare (as proportion of direct wage)	High	High	High	Very low	High	Low (Welfare tax-based)	Low	Average
5. LIFE STYLE AND CONSUMPTION NORMS	Initially lagging	Closing gap	Initially lagging	Fast closing gap	Modern with large welfare	Modern with welfare	Largely commoditized	Rapid Modernization
GLOBAL FEATURES OF FORDISM	CORPORATIST FORDISM	STATE PUSHED	LAGGING AND IMPERFECTLY INSTITUTIONALIZED	HYBRID FORDISM	DEMOCRATIC FORDISM	FLAWED FORDISM	GENUINE FORDISM	FLEX-FORDISM

Source : Adapted from R. BOYER (1990b), p. 8 et 14



very specific capital labour relation, at odds with conventional fordism : job tenure, continuous learning by doing, bonus payment along with a strong segmentation of labour markets (R. BOYER (1992) ; B. CORIAT (1991)). Germany exhibits an equivalent specificity, since for example its rich institutional setting enhancing quality and skills does not seem to need any Japanese style device (quality circle, just in time, bonus payment,...). Nor does the German productive system and industrial relations resemble to the typical fordism.

◦ *United Kingdom* corresponds to still another national trajectory. Given an early industrialization and stratification of industrial relations along skills, local bargaining and a highly conflicting bargaining process, the introduction of mass production of standardized products has always been difficult, since for example the early American transplants (S. TOLLIDAY (1992) ; S. TOLLIDAY, J. ZEITLIN (1992)). Of course, in the 80's, the significant inflow of Japanese transplants might correspond to a turning point in British industrial relations... but of course the issue is hotly debated (S. ACKROYD & Alii (1988) ; M. KENNEY, R. FLORIDA (1988) ; S.B. LEVINE, M. OHTSU (1991)).

To summarize, the inherent mix between political and social interests on one side, economic strategies on the other, makes the capital labour relation, and by extension most other institutional forms very dependent from localized interactions. Given the time and the cost which is required to build such institutions, they are generally difficult to change drastically, most of the transformation taking place by a marginal adaptation of the existing repertoire of existing coordinating mechanisms (see *infra* Diagram 5). For instance, both France and US exhibit a strong fordist inertia and nostalgia, precisely because both societies have developed an extended set of institutions (credit market, education system, labour laws...), specifically designed for mass production of standardized goods (M.L. DERTOUZOS & alii (1989) ; R. HOLLINGSWORTH (1993); R. BOYER (1991)).

### 3. Contrasted evolutions of unionization: an evidence for national trajectories and the absence of clear institutional convergence?

To be really convincing the argument about the absence of any clear convergence in the precise institutional setting has to be made more explicit as regards the mechanisms involved. But theoretical arguments are not sufficient and consequently they have to be worked out through a specific example. In an epoch where the crisis of unions and their decline is supposed universal, it might be interesting to challenge such a vision.

The specialists of technical change have recently shown that if a new technology exhibits increasing returns to scale, due for example to network effects, then a superior innovation can be blocked by the prevailing and old technology which benefits from a past wide diffusion (B. ARTHUR (1988)). Thus, a decision taken in the past or a succession of stochastic disturbances may propel and lock in a technological system along a direction which will be difficult to change: only the decay or obsolescence of the ruling technology will give a fresh chance to superior innovations. It can be shown that the structure of this *lock-in dilemma* is largely common to social customs, norms and by extension to institutional forms (R. BOYER, A. ORLEAN (1991), (1992) ; R. BOYER (1992d)).

° An institution can be conceived as a series of rules which allow to synchronize activities and stabilize cross expectations, i.e. social interactions which generally cannot be coordinated by pure market mechanisms. Consequently, the self interest for adhering to such rules will not be linked only to a private assessment of cost and benefit but the diffusion of the obedience to this rule within the society considered. Therefore, the same formalizations can be adapted to the issue of *institutional inertia*.

° If the underlying interactions define the equivalent of a coordination game, and if the actors interact randomly, then a superior convention will be unable to develop, because not any agent has sufficient power to push the society from the old to the new conventions. Interestingly enough, such a barrier and threshold effect is totally independent from any bureaucratization and opportunistic behaviour of the agents in

charge of the management of the institution, in charge of enforcing the related convention (R. BOYER, A. ORLEAN (1992)).

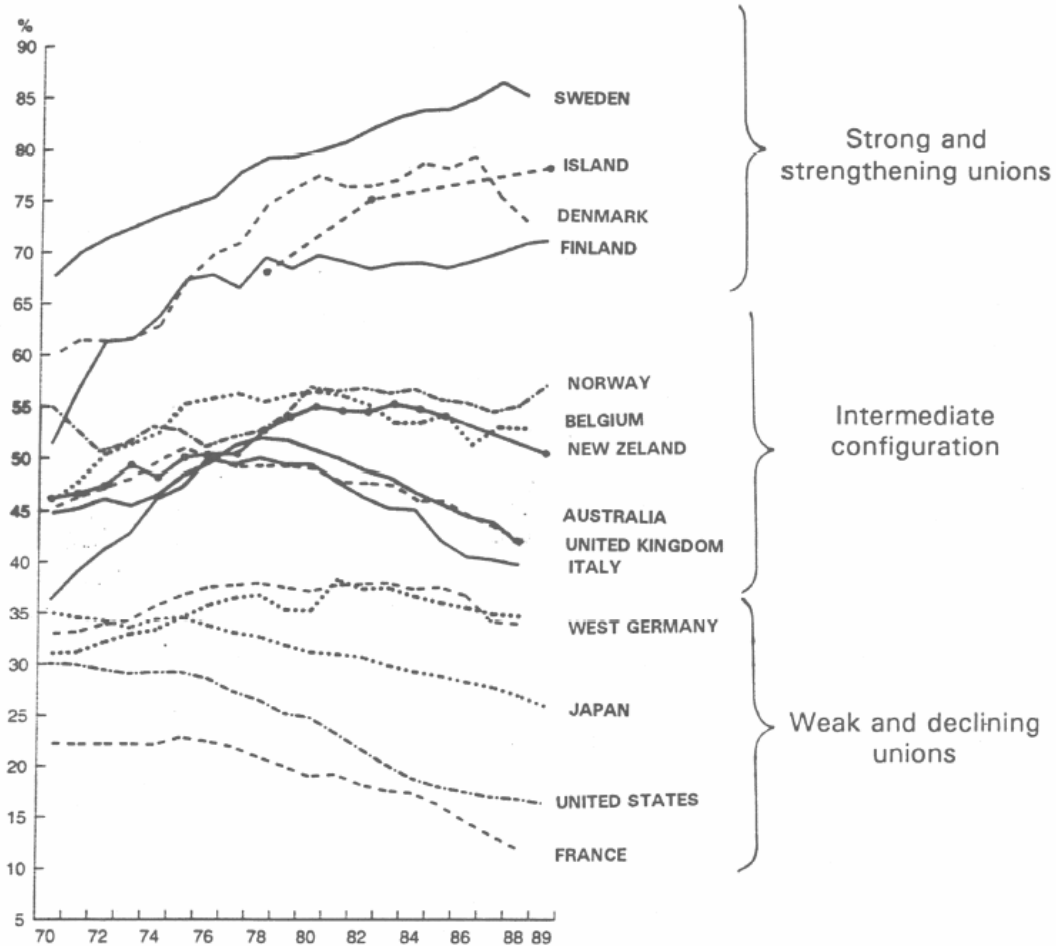
° Nevertheless, historical evidence suggests that this inertia and hysteresis of convention and institutions is not a fatality and will not last for ever. Firstly, a general collapse of the society concerned might destroy all the previous institutional arrangements and give some chance to the building of new one. Concerning for example the implementation of fordism, first and second World Wars have played a key role in Europe, Japan and even the United States (R. BOYER, A. ORLEAN (1991)). Political scientists tend to show that this is not an exception : international crises as well as internal political turmoils have usually triggered more radical institutional changes than currently admitted in more peaceful times (P. GOUREVITCH (1986)).

° Finally, the localization of interactions by the creation of clubs, associations, organizations with restricted entry may solve simple coordination problems in which the conflict of interests are small or not existing. If on the contrary, the game takes the configuration of prisoner's dilemma, a Pareto superior convention will not emerge, and this calls for a third party enforcement of such a possible convention (R. BOYER (1992d)). This last point is of special importance for industrial relations and specially unionization.

Many and well known experts (K. OHMAE (1990)) have been recurrently forecasting that the new phase of globalization of production, drastic changes in technologies, large and persisting unemployment and finally of conservative political counter evolution are implying the progressive decay of unions...or at least the need of a complete redefinition of their objectives, organizations and methods. This is not else than convergence theory applied to the issue of industrial relations and unionization. The present framework is severely critical about such an audacious generalization: no doubt that one observes a steady decline of union density in the United States since the early 50's, but this is not the general trend among OECD countries

AN EXAMPLE OF INSTITUTIONAL DIVERGENCE : THE CONTRASTED TRAJECTORIES OF UNIONIZATION IN OECD COUNTRIES

GRAPH 6 : THE EVOLUTION OF UNION DENSITY FOR MAJOR OECD COUNTRIES : 1970-1989



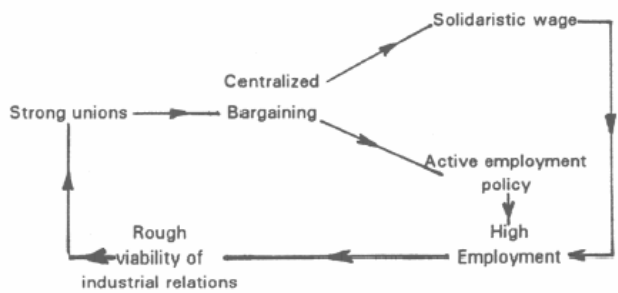
Source : OCDE (1991b), p. 106

FIGURE 2 : AN INTERPRETATION FOR SUCH DIVERGING TRAJECTORIES

1. The dilemma of the decentralized strategies



2. The persisting virtuous circle of social democratic systems



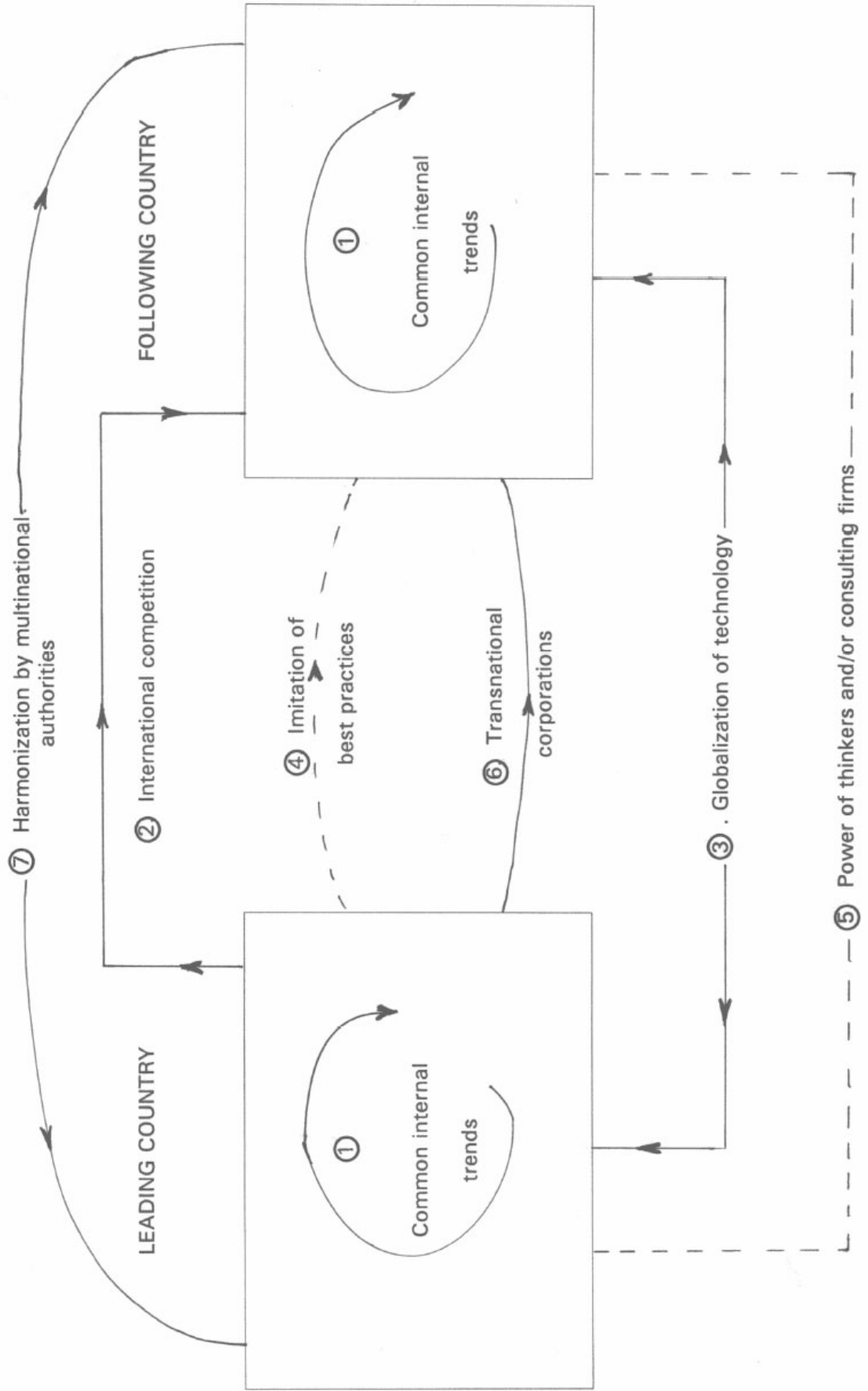
(OECD (1991b)). More precisely, the hypothesis of contrasted national trajectories fits better to the comparative analysis sketched out by Graph 6 and Figure 2.

° From a pure *statistical point of view*, no general trend permeates from a display of union density since two decades. Of course, France and Japan seems to follow the American path, i.e. a long run decline and debilitation of unionization. But, at the other extreme, social democratic countries in which unionists are closely associated to the compatibilization of groups interests and where wage bargaining used to be centralized, the unions have been expanding their memberships...if not necessarily their influence upon policy making (for example in Sweden). Furthermore, an intermediate configuration corresponds to a rough constancy of union density, even with some inverse U-shape evolution for Australia, United Kingdom and Italy. The general trend is therefore an increasing diversity of national configurations: *divergence* is more accurate than convergence, which happens only among similar countries, for example social democratic ones.

° These contrasted patterns are themselves the outcome of quite different national meanings, objectives and organizations for unions, all over OECD countries : the process of legal recognition, the service provided to members, the role attributed concerning wage bargaining or welfare management, the links with political elites, the degree of centralization or conversely decentralization and finally even the nature of competition among competing conceptions of unionization, all these features define a whole spectrum of industrial relations and not a single one. Incidentally, some recent researches on union formation and resilience suggest that the more centralized wage bargaining, the more likely the resistance of union to adverse macroeconomic shocks. Conversely, in a totally decentralized system, the *same* international evolution will be associated to a strong decline in unionization (G. CORNEO (1992)).

° *The precise organization of union matters* and this is a major rebuttal to the most naïve visions of convergence theory. Basically, according to the genesis of unions, specific strategic choices have been made without any clear perception of their long term

DIAGRAM 3 : WHY SHOULD NATIONS CONVERGE ? A TAXONOMY FOR POSSIBLE MECHANISMS



implications. This is specially so given the radical uncertainty about the compatibility of an union strategy with an ever changing "régulation" mode. Once instituted, these configurations will have an unequal ability to cope with technological innovation, foreign competition, globalization. At one extreme, the vicious circle of decentralized and weak unions, at the other the strengthening of a centralized and already large union fits into a virtuous circle (Figure 2). But again, these favourable social and economic outcomes might be challenged by a further evolution of the world economy, as well as by the inner disequilibria generated by the very success of the previous configurations. Contemporary Sweden is a good example of such an unexpected collapse.

## **V - CONVERGENCE THEORY REVISITED**

These mitigated results call for a more general approach : generally speaking, what are the core arguments put forward by convergence theoreticians ? Many different mechanisms have been advocated but is it that sure they explain the convergence observed after 1950 among the club of advanced countries? In fact, the basic reasoning is not devoid of ambiguities and the very same mechanisms can explain both divergence and convergence. Furthermore, international trade theory, associated with modern institutional analyses may provide a complete taxonomy for the various configurations among which convergence is only a single case. Finally, the issue about convergence/divergence is up to conflicting visions for institution building.

### **1. Many but uncertain mechanisms**

Conventionally, competition among firms, institutional arrangements, technologies, regions and nations is assumed to rule out any inefficient configuration and foster the convergence toward the best practice. Incidentally, this one of the reasons for the resurgence of convergence theory in the 90's, since the globalization of competition is perceived as a key factor calibrating industrial organization. But, this is only one of the seven possible alternative mechanisms to be considered (Diagram 3).

First of all, even isolated social and economic systems could eventually converge toward the same organization if they find out, by chance or necessity, the same solution to common internal problems. For instance, the constitution of mass production calls for precise requirements concerning transportation, technical training, the nature of innovation and even State intervention. In other words, facing the same problems and opportunities, national economies could finally find the same steady state and institutional arrangements, after a trial and error of the best solution, even if external competition is totally absent.

A third and intermediate mechanism is linked to the diffusion of science and technology : if a complete technological determinism were supposed to prevail, every firm would adopt the same industrial organization and benefit from identical productivity levels...at least if all factors are complementary, without any possible substitution. Thus, in the general case, the globalization of technology has to be combined with competition at the world level in order to induce the convergence of macroeconomics indexes such as productivity and standard of living levels.

Two other and related factors can be added. Firstly, managers as well as governments, may try to imitate best practices which are not necessarily linked to technology but to institutional and organizational innovations. Secondly, in contemporary world, international consulting firms or international bodies may diffuse the same business principles and economic policies aims across national borders. For instance, scientific management has followed such a pattern of diffusion, whereas after World War II, many European countries and Japan have been emulated by the imitation of American mass production, quite independently from any direct pressure from product or factor competition.

Finally, two mechanisms are related to the direct and generally highly visible intervention of either trans-national corporations or multinational authorities in charge of defining and enforcing rules of the game within a given international regime. In both cases, the mechanisms of convergence do not take any more the anonymous forms of



market competition but derive from an asymmetry in power relation, let it be purely economical (trans-national corporations) or mainly political (multinational authorities, for instance GATT, or bilateral agreement such as Structural Impediment Initiative (SII) between Japan and US. Nevertheless, these two mechanisms are not equivalent : trans-national corporations usually export their best practices and thus promote a convergence toward higher efficiency ; some international agreements may on the contrary impose the economic order favourable to the leading partner and in some case restrict efficiency, when it is not reached by admissible or fair means social clauses in NAFTA, social charter for the Maastricht treaty.

In a sense, all these mechanisms are not fully automatic, since they may have uncertain and varied effects according to the historical context and the precise configuration of market competition, technology innovation, the degree and nature of internationalization, or the nature of national problems and the ability to diffuse new ideas, property rights and innovations. A brief comparison of the evolution of old industrialized countries after World War II delivers an assessment about the relative frequency and intensity of the seven convergence mechanisms (Table 4).

Japan and European countries have been facing the same challenge of the recovery out of the war economy and modernization : most of them succeeded in implementing American methods, but some of them (UK, southern Italy) failed and whole continents for example Africa, which were facing quite different constraints and opportunities, were unable to engineer a development process, let it be specific or imported. Thus, the commonality of internal challenge would explain at best the succession of the same stages "à la Rostow", i.e. quite unlikely the convergence toward the same economic organization and performance.

Initially, during the 50's, the emulation by the international competition has been quite weak indeed, since external trade was largely organized, international labor mobility very low and credit markets quite exclusively nationally organized and highly regulated. Consequently, all these national specificities were probably overcoming the bend toward

TABLE 4 : THE RELATIVE FREQUENCY AND INTENSITY OF CONVERGENCE MECHANISMS AFTER WORLD WAR II

NATURE MECHANISMS	TYPE OF MECHANISMS	MODE OF TRANSMISSION	FREQUENCY	INTENSITY	IMPACT UPON THE INITIAL GAP
1. Internal common trends	Facing the same constraints and problems, each unit follows the same path	Cognitivist and immaterial	Rather high	Variable across countries	Does not imply convergence, but a succession of common stages (W.ROSTOW)
2. International competition on	Creative destruction	External trade	increasing	Uneven across sectors	May imply destruction of obsolete institutional forms, not necessarily their convergence
2.1. Products					
2.2. Labor	Impact upon wage and technical change	Immigration	Low or moderate	Quite indirect effect	Not clear : both convergence and divergence
2.3. Finance	Impact upon investment	International markets	Rising with deregulation	Possibly strong	May help to converge but for a limited range of countries
3. Globalization of technology	Organizations would follow technical change	Either public knowledge or private appropriation by firms	Significant and increasing	Varies across sectors	Convergence if public knowledge, Divergence if private appropriability
4. Imitation of best practices	Learning by copying	. Personal contacts . Technical literature	Rather frequent, but sometimes difficult	Growing through time	Should narrow the gap, if social capabilities (M. ABRAMOVITZ)
5. Power of ideas	Convincing decision makers	Cognitivist and immaterial	Significant discontinuities	Could be more important than usually considered	Possibly important for economic policy (P. HALL), more problematic for productive system
5.1. Thinkers of the past	Paying for institutional redesign				
5.2. Experts					
6. Transnational corporation	Exploitation of national disparities	Direct foreign investment, trade and technology	Few but powerful	From enclaves to embryo for institutional redesign	Help to converge if favourable initial conditions, widen gap in others
7. Harmonization by multinational authorities	Negotiation and then coercion	Political and legal apparatus	Rather low, due to intrinsic difficulties	Potentially strong if limited scope and/or duration	Theoretically, helps to institutional convergence at the possible cost of economic convergence

more homogeneity associated with a moderate degree of competition at the world level. From a more general point of view, competition can provide an incentive to adjustment, not so much via innovation, but by mere destruction of obsolete institutional forms. Therefore, it is hard to speak of convergence when a leading hegemonic power is developing by bankrupting previous and the less efficient industries abroad. Remember that this seems to have been the case during the first stage of European industrialization (see previous graph 1). The novelty of post world war II mass production is clear enough: it has diffused outside the United States, without impeding the catching up process for the more advanced countries.

Similarly, the globalization of technology has played some role after WWII, since the American equipment goods, scientific knowledge and technical know-how have been exported to a significant number of countries. Nevertheless, the process is not automatic at all, since technological expertise is not a pure public good: each following firm, region or nation has to invest in order to learn how to use master and finally up-grade the new technologies. Thus, divergence can take place as well as convergence if the country is unable to invest in public infrastructure, general education and technology. Cross national analysis does confirm the existence of such a dividing line (B. VERSPAGEN (1992) and Table 1, *supra*).

The imitation of best practices and the diffusion of new managerial tools have played some role in the convergence process among OECD countries : many European and Japanese managers and civil servants have been visiting the United States in order to capture the flavour of American methods and import and adapt them for their own purpose, back home. It has been shown that this process played some role in the impressive modernization of the French capitalism, quite ailing during the interwar period (D. FOURQUET (1982)). But, the overall efficiency may be the outcome of a whole package of policies, coordinated under the aegis of the Marshall plan : the delivery of technological expertise was tied to the sales of equipment goods and easy credit from the United States. Such a complementarity has to be reminded for the rebuilding of Eastern Europe economies: not any single measure has been efficient in order to foster

the transition toward a market economy. Reaching the American standards is far ahead and not at all the consequence of any initial lagging behind...in spite of numerous attempts in copying Western methods.

The American trans-national companies have played some role in helping Europe and Japan to modernize but this mechanism is not efficient enough to explain the fast catching up. Firstly, in Europe and Japan, domestic firms still have the larger market share and have been emulated by American methods but not necessarily American transplants, generally limited to quite a few specific sectors. Secondly, in Latin-America and still more in Africa, international firms have rarely succeeded in triggering the modernization of the whole economic system. Thus in some cases, the technological gap has widened between domestic and trans-national firms and consequently the national trajectories have often diverged and not converged to American standards.

Finally, the harmonization by multinational authorities is a quite recent phenomena which had seemingly a moderate impact during the post-WWII long boom. Of course, IMF was in charge of exchange rate movements and international credit, whereas OECD was designed in order precisely to homogenize economic policy and development styles. But a technical expertise is only a lubricant in the motor of convergence, propelled by deeper and more structural factors.

Consequently, many mechanisms might be brought into the picture but few or even none of them are powerful enough in order to foster convergence. The process is far from automatic and combines many of the related mechanisms according to a sophisticated mix: divergence or the inability to catch-up are not at all excluded quite on the contrary.

## **2. The three major flaws in convergence theory**

Nevertheless, one could argue that the speed of convergence has been actually rather low until the 70's but that the new constraints and opportunities provided by the contemporary trends toward globalization will speed up convergence. Many observers following K. OHMAE (1990) would prognose that the world economy is actually

converging toward a unified and probably common economic organization. The reasoning is appealing indeed (Diagram 4).

A move toward a complete globalization of the international economy is the first premise: financial deregulations and innovations have destroyed the national borders for credit market and thus the firms, at least the larger ones, have an equal access to finance. Similarly, modern technologies are so complex and so capital intensive, that only trans-national partnerships are able to monitor innovations in the electronic, pharmaceutical industries. The product markets themselves which used to be segmented according to national borders, are assumed to become more and more global i.e. more similar for like minded countries. The limiting case would be of a totally trans-national economy, without any residual discrepancies across countries.

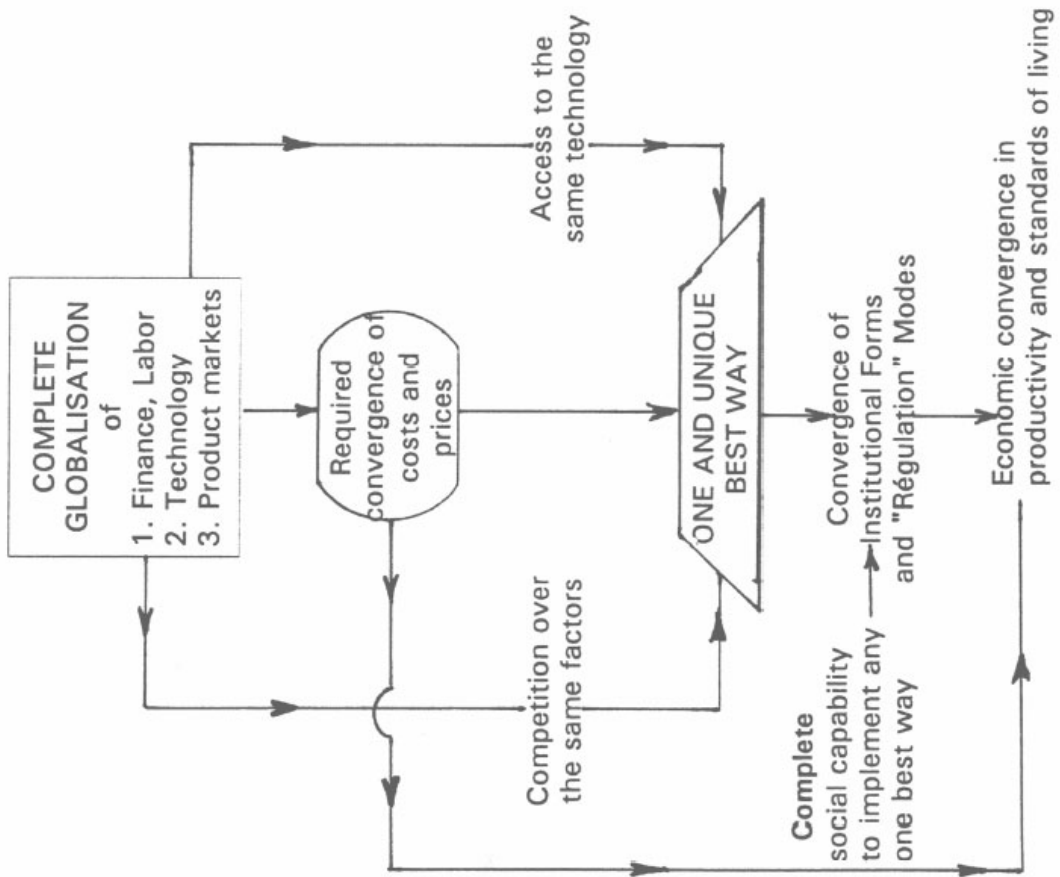
The second hypothesis builds upon the first one and supposes that the costs and finally the prices will converge toward the same equilibrium level, once the costs of transportation and exchange are taken into account: the law of the single price, put forward by international trade theory would finally become true in the contemporary era of globalization. Thus, the firms would be literally squeezed by the pure and perfect competition operating both upon product and factor markets.

Here comes the third hypothesis: if all over the world, the firms are facing the same optimizing problems, they will find the same solution in terms of technology, markets, products, in accordance with the idea that there is only one unique best way in organizing production, i.e. a single optimum among a possible multiplicity of local optima. If this is observed for each product and sector, the best organizational forms would finally prevail whatever the localization and by aggregation, the macroeconomics evolutions will tend toward the convergence of productivity and standard of living levels.

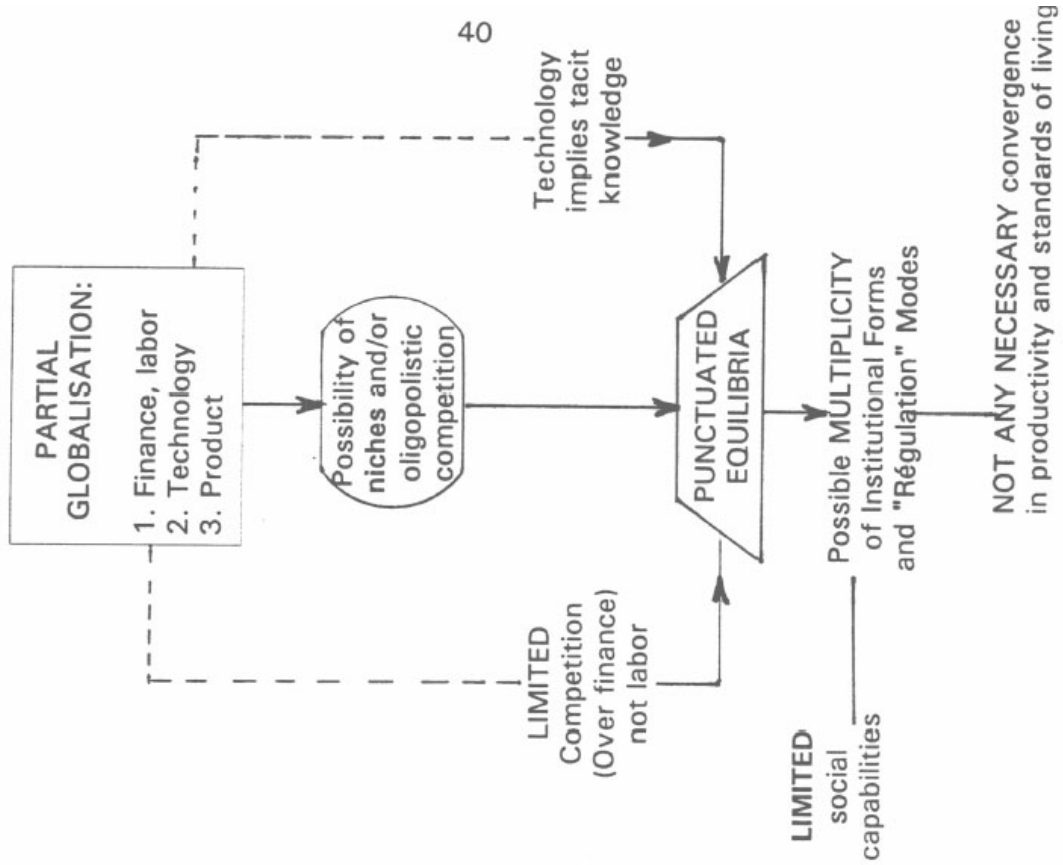
This syllogism which equates globalization with convergence is not devoid of logical flaws and it is not sure that its premises do correspond to the

DIAGRAM 4 : THE CONVERGENCE THEORY REVISITED

A QUITE EXTREME SET OF HYPOTHESES.....



....RATHER UNLIKELY, EVEN IN THE 90's



current state of the world economy. Given the same stylized facts, a totally different conclusion can be reached (second part of Diagram 4). First of all, the internationalization process has not reached such degree that globalization would be complete. Quite on the contrary, even if interest rates are synchronized internationally, their relative levels depend upon the national styles in monetary policy and the adjustment of saving and investment. Contrary to the prognosis of convergence theory, national saving rate and investment rate are strongly correlated, which implies the importance of national boundaries. Similarly, the mobility of labour is not such as to imply the equalization of wage according to skills. Therefore, wage levels and their hierarchies are still shaped by national institutional forms, skill formation and social values. Thus, the choice in organization and technologies will continue to depend upon this national legacy, seemingly quite apart from the law of single price, which would prevail if globalization were complete.

The second hypothesis about the competition upon product markets is not usually fulfilled : the same product may experience a large discrepancy in the prices set in every national market, according to the local conditions for competition. For instance, in the car industry the same product exhibits impressive price disparities with the structural competitiveness of local producers: low and competitive price in small countries without any national car maker, higher and oligopolistic prices if the domestic producers are lagging with respect to leading producers. Competition remains largely imperfect and the strategy of firms is still to find out niches and this introduces possible differentiation even if production and trade are more and more international. The second pillar of convergence theory is therefore rather or quite shaky: each niche may call for specific organizational forms and deliver unequal productivity levels.

The third hypothesis can be challenged too: if technology is not a private commodity, nor is it not a pure public good, then its efficient use assumes tacit knowledge, learning by doing or using effects. Thus, the one best way is not necessary available to all producers since only the leading ones, with sufficient past experience, can benefit from the best practices. When imperfect competition upon product markets is

combined with tacit knowledge for technologies, then several productive configurations may coexist even in the long run. Some simple models in industrial analysis confirm such a possibility (H.C. WHITE (1981)). It could be checked that the actual state of the international system is closer to a series of national oligopolistic markets than to a totally unified world market.

The same argument can be made more general using evolutionary theory. Conventionally, competition is supposed to drive out of business the more archaic and inefficient firms, whereas the most successful innovations are imitated by a cohort of followers which finally converge toward the one best way. Empirical studies about the dynamics of industrial organization do not confirm this hypothesis, since contrasted firm organizations, technologies and capital labour relations usually coexist within the same precisely defined sector, even in the long run. Recent advances in the modelling of evolutionary process have delivered configurations with punctuated equilibria, i.e. the long run coexistence of various species for biology, various norms and organizations for social sciences. Basically this means that more than one solution can be given to the same problem, a feature which is quite common in the history of technologies and is frequently observed for economic organizations.

A first example relates to automatization. Back in the 50's, the machine tool industry was facing two methods for the development of automatization: either numerically controlled equipment via sophisticated and centralized programming, or simpler robots built upon a play back technology, according which each new task could be taught by the observation of an human operator. Given the nature of the capital labour relations and the conceptions about science and technology prevailing in the US, numerically controlled machines have finally been the leading choice for automatization (A. NOBLE (1982)). But in other countries, such as Japan or Sweden, a different social context has induced the adoption of play-back technologies. Thus, this highly internationalized production display at least two forms of automatozation and this is a good example for the multiplicity of equilibria in an evolutionary world governed by a moderate form of competition.



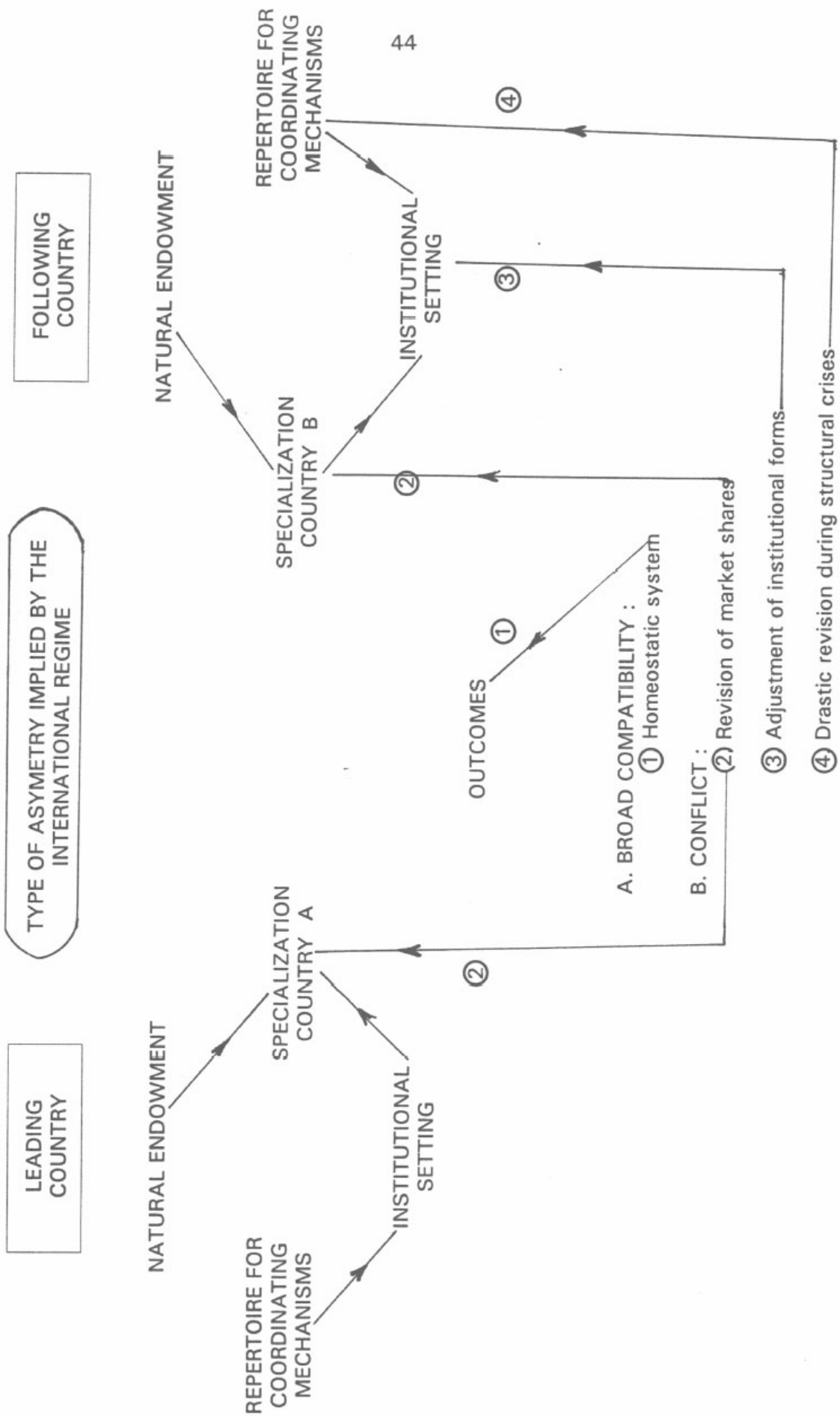
The exploration of alternatives to Fordism exhibits a second example of the multiplicity of institutional arrangements in order to cope with the same requirements. The emerging principles, i.e. mass production of differentiated and high quality goods, call for a richer skill spectrum than standardized production (R. BOYER (1991b)). But given the embeddedness of education and training into each national culture, international comparisons suggest the existence of at least three distinct national models of skill formation (W. STREECK (1993a)). The German occupational model emphasizes broad skills for each employees, with overlapping technical competences. In the Japanese large firms, the skills are generated by internal mobility among various tasks within the firms and are therefore largely specific to each large company. In the US, an emerging model is building skills around teamwork, but the rotation of workers is less acute than in the Japanese model and the incentives are quite different.

In both cases, the firms and sectors are clearly integrated within the international economy and nevertheless, they display contrasted institutional forms to cope with the same challenge of structural competitiveness. Even if the economic performances are quite similar, there is not any one best way. Furthermore, evolutionary approaches remind that the success is not warranted and that failure, i.e. relative decline or bankruptcy is another method for coping with competitiveness. Therefore, the convergence among the club of the surviving happy few is paid by the cost of destruction of inadequate institutional forms, in other words a kind of diverging pattern.

### **3. International specialization and the persistence of national styles in institution building.**

International trade theory usually concludes that factor incomes will converge as soon as products are freely exchanged internationally. But this economic convergence does not imply necessarily that the same institutional arrangements will be observed across countries, quite on the contrary. Imagine for example that a leading country is facing a follower which initially exhibits a different specialization (Diagram 5). Basically, each country is selecting its specialization by the interaction of natural endowment, the repertoire of coordinating mechanisms and the compatibility with

DIAGRAM 5 : ANOTHER REASON WHY NATIONAL INSTITUTIONAL SETTINGS DO NOT USUALLY CONVERGE.



the competition implied by the international regime. This architecture may display four configurations.

The first one is homeostatic equilibrium i.e. an approximate long run stability of specialization, industrial structures and the nature of coordinating mechanisms. There is generally speaking not any reason for this homeostatic system to relate to convergence, nor economical nor institutional. For instance, each OECD countries may specialized in the sectors which are the more efficiently run by the prevailing institutional setting. The Japanese economy might specialize in consumer goods (electronics and cars) the United States in software, information and basic science, the British in chemical and pharmaceutical, the German in high quality equipment goods. In each case, the countries are using at their best the coordination gains typical of their national repertoire: the large firm and its subcontractors in Japan, the excellence of university research for the US and the UK, the richness and quality of skills for Germany. In this punctuate equilibria, convergence would be the exception not the rule.

The revision of market shares, i.e. their shrinking for the less efficient countries and conversely their growth for the leading ones, is the second mechanism available in order to make compatible a series of natural endowments and constructed competitive advantage, via the opportunities and constraints linked to the prevailing institutional setting. For instance, the contemporary evolution of market shares for the car industries, consumer electronics, between American, Japanese and Asian NIC's seem to fit with this mechanism. The diversity of institutions is preserved but the relative efficiency of national economies is continuously adjusted. This is a second exception to convergence theory.

But firms, business associations or governments may react if the current economic trends hurt the welfare of the community, by reducing production, employment and/or living standards. Then, they have interest in trying to build new institutional forms, by mixing the various ingredients extracted from the national repertoire of coordinating mechanisms. For instance, given the weaknesses of private

entrepreneurship in France, State agencies may promote special RD programs in order to cope with technological innovation: the Direction Generale des Télécommunications which initiated Minitel would be the functional equivalent of the American Silicon Valley start-ups for the micro computers. Similarly, in the 80's, the British government has widely opened the car and electronics industries to Japanese transplants, in order to try to build a new industrial configuration, strengthening some key features of British evolutions (the search for regional autonomy), weakening others (closed shop unionization). A third example relates to the impact of European integration. The countries which traditionally had strong regional economies and political organizations have converted this inherited advantage into a new bargaining power at Brussels, via a clever lobbying about the use of European structural funds. The new emerging productive model gives a new opportunity to regional economies (C. SABEL (1991)). Old norms and social values are manufactured again into new institutional forms and sources for external competitiveness.

The fourth configuration is quite exceptional indeed since it takes place when all the previous adjustment processes by market shares and the redesign of institutional forms have failed. Adverse economic trends, acute social or political crises usually trigger the search for more drastic reforms, in order to expand the scope and variety of coordinating mechanisms which would cope with external competitiveness and maintain a minimal social cohesiveness within the given community. "Régulation" approaches label these episodes as structural crises; when the issue at stake is the redesign of institutional forms and the "régulation" modes. This took place during the great depression at the end of the last century and during the interwar period. The trial and error process, by nature quite uncertain, is far away from the smooth convergence toward a well known growth regime. During the 90's, the major political crisis in Italy gives a good example of a tentative complete redesign in institutional forms in order to cope with the challenge of European integration. To conclude, it is clear that the convergence hypothesis is quite challenged by these approaches.

#### 4. Two visions in institution building: definite consequences upon convergence

Finally, the issue is far more general than economic or institutional convergence and relates to alternative visions for the logic, origins, functioning and evolution of institutions.

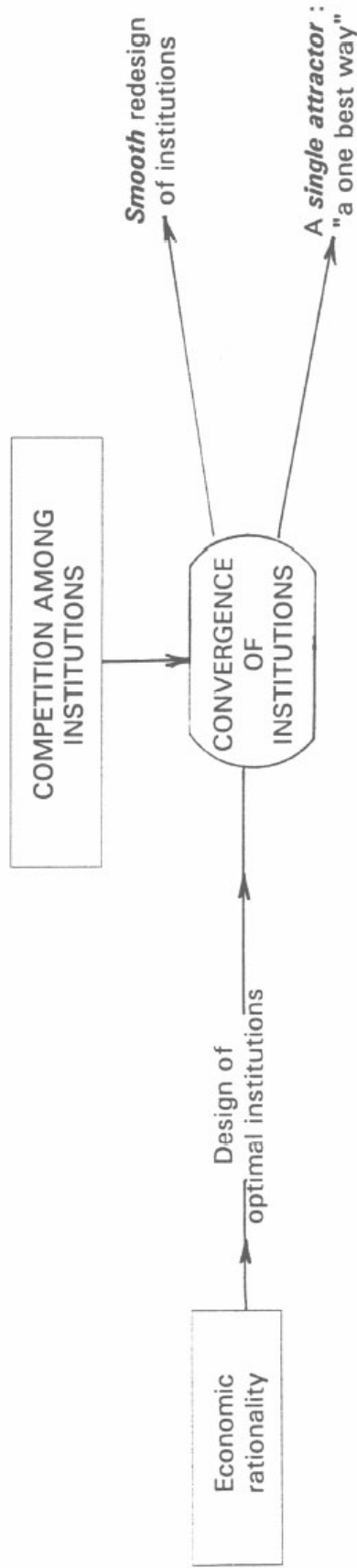
° For neo-classical theory, rational economic agents try to design optimal coordinating mechanisms i.e. efficiency preserving or welfare enhancing (Diagram 6.A). They may result from bargaining, minimization of transaction costs or the design by a principal of an incomplete contract to monitor a subordinate agent. Then this decentralized innovation has to prove its viability, by competing efficiently upon product and factor markets. If the coordinating mechanism is Pareto improving, all other agents will have interest in adopting it and on the contrary the agents sticking to the old mechanisms will grow slower and eventually be driven out the business. Thus, the emergence, diffusion and maturation of institutions are the intended or unintended outcome of competition among alternative institutions.

As a consequence, the convergence toward the "best" institution is generally warranted provided a sufficient freedom is given to economic agent and competition prevails. Hence a smooth process in the evolution of institutions according to a quite optimistic vision of the reform and transformation of economic arrangements. But however intuitive and appealing, this approach is not devoid of major flaws.

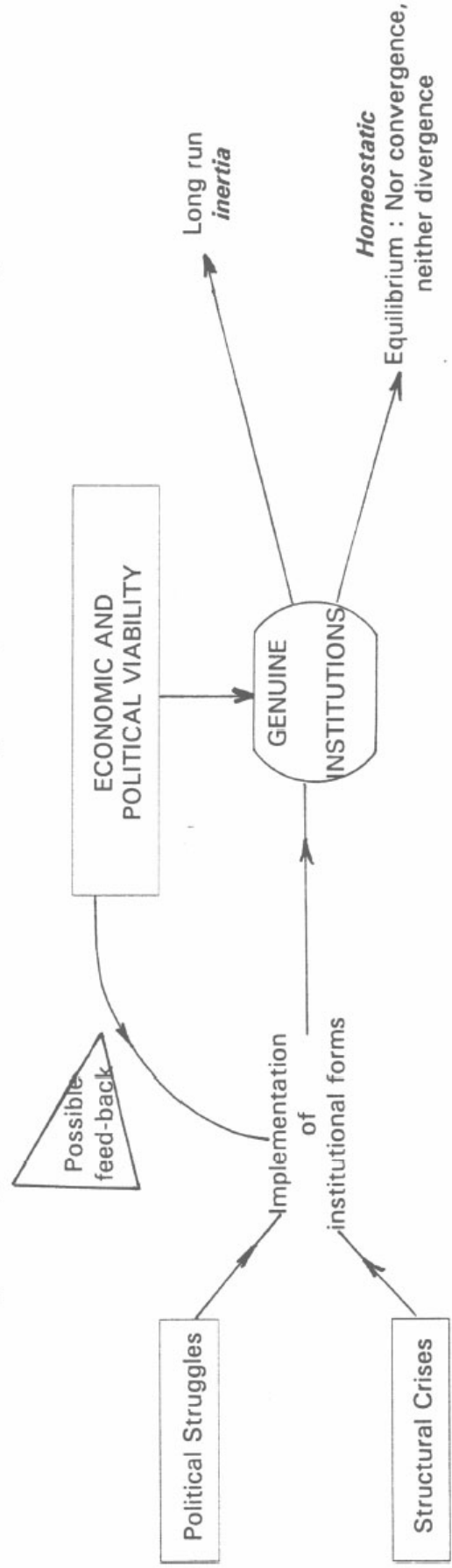
Firstly, the uniqueness of the equilibrium is not at all warranted : the multiplicity of equilibria in an institutionally rich economy the rule and not the exception, since it is already the case for general equilibrium theory. Thus, every economic can be stuck into a specific local equilibrium, without any clear mechanism for convergence, unless strong institutional mimetism prevails. Secondly, the transition toward a superior institution can be blocked by all the sunk costs associated to the old institutions. Even in the simplest coordination game, this pathology is quite common and the problems are still worse when agents have conflicting interests (R. BOYER, A. ORLEAN (1992) already quoted). Thirdly, the neo-classical theory assumes a quasi divisibility of micro

DIAGRAM 6 : CONVERGENCE OR DIVERGENCE OF INSTITUTIONAL FORMS ?

A. The neoclassical institutionalism : the profit motive will select the best arrangement



B. A political genesis of economic institutions : the possible persistence of contrasted arrangements



institutions, which can be added in order to design a complete architecture. This decompatibility principle is severely challenged by some recent advances in comparative analyses: a monetary regime has to be coherent with an international system, a form of competition and eventually a capital labour compromise (R. BOYER (1990a)). This hint begins to be recognized by the discussion about the European central bank, which would be built upon the model of Bundesbank: without many other and closely related institutions, present in the German system, the independence is not an absolute insurance against inflation (W. STREECK (1993b)). Fourthly, efficiency is not the key objective of many social institutions (D. NORTH (1991)): defining respective power and role of factors, stabilizing cross expectations and organizing social interactions come first. Market and system competition is only taking place afterwards, and assessing the relative efficiency of a complete architecture of generally interdependent institutions.

° All these criticisms may be the starting point of an alternative vision (Diagram 6.B). First of all, the economic rationale of institutions cannot be disentangled from their political and social roles and symmetrically, the rationality of homo oeconomicus describes only a limited, even if increasing, fraction of human behaviour. Thus the analysis has to delineate the domain in which actors interact, to allocate to them the full description of their objectives and constraints, without a priori restricting to either pure economic factors, or political ones. Note that this extension of conventional rational choice theory strengthens the specificity of each problem, and makes rationality context dependent. Thus institutional convergence is less likely, since many idiosyncratic complementarities now permeate the whole system.

A second difference relates to the origins of institutions. They are not uniquely designed in order to solve an efficiency problem or fulfil social objectives but most of the cases, they are the unintended consequences of the pursuit of strategic advantage by unequal agents. Consequently, the asymmetry of power has definite consequences upon the design of institutions, which have rather rarely the property of enhancing efficiency (J. KNIGHT (1992)). Thus, political struggles and/or structural crises usually play a role in the invention, implementation and the legitimisation of

institutional forms: this is not an accident but the very consequences of the power relations implied by any institution, in any sphere, political as well as economical.

Then, the stability of the bargaining process which takes place within the institutional order is the key criteria for the economic and political viability of this order. This conception has two important consequences. Firstly, the medium or long run inertia of institutions is not an oddity and exception to rationality and efficiency but it expresses the very nature of social relationships and rules of the game. Secondly, and more generally, the concept of homeostatic equilibrium describes this compatibility of an institutional architecture and the economic dynamics it generates. In such an evolutionary model, convergence or divergence are only specific cases among a large variety of other evolutions: partial catching up and then collapse, autonomous evolution, catching up and forging ahead,....

Therefore, convergence is not the natural "outcome" of a quite general mechanism, but the consequence of the ex-post complementarity of mechanisms with unintended properties. The convergence of some components of an institutional organization may strengthen the diverging path of other institutions. For instance, financial liberalization does not necessarily lead to the convergence of more and more aspects of national regulatory regimes. In Japan, during the 80's, allowing the large firms to enter into the international credit market, might have produced extra profits which could then have been used to accentuate both the efficiency and the specificity of Japanese industrial organization. But of course in the long run, this may challenge the inner stability of the large Japanese corporation. For example, a complete financial liberalization could destabilize the job tenure which used to prevail due to the interlocking of corporate assets and the role of the main bank (M. AOKI (1992)).



## **VI - SOME PARADOXES ABOUT CONVERGENCE THEORY : STILL THE CENTURY OF NATIONS ?**

Finally a quite paradoxical picture emerges from the previous assessment. On one side, many evidences seem to argue in favour of convergence theory : the collapse of Soviet economic regimes and the eagerness of their elites to adhere to markets and democracy ; the erosion and then the structural crisis of the Swedish model ; the aborted French experience of a socialist strategy out of the current crisis ; the surge of Asian dragons and their impressive technological achievements; the ambition of the Maastricht treaty to promote a fast track to real convergence via monetary integration.

On the other side, statistical evidence does not confirm any general and secular trend toward economic convergence in productivity levels and of standards of living. This convergence is actually restricted to the small club of nations which have been able to invest sufficiently in productive investment, infrastructure and education, whereas the poorest countries (for example in Africa) have been left out of the process of economic development. Even within developed or rich countries, the long run evolutions of Great Britain and Argentina remind us that relative or absolute decline is always a possibility and that convergence is never automatic, but is associated to the choice and implementation of an adequate strategy, given a changing international regime and radical changes in technological innovation.

Such conflicting views and this opposition between naïve and academic representations deserves some explanations. Again, the previous analyses suggest two main reasons for such a paradox. First of all, the idea of a single one best way is very intuitive indeed and seems to fit with the teaching of text book neo-classical theory : if all technologies could be mastered without any cost, if institutions were totally divisible and their choice independent one from another, then economic convergence would be the rule. Note nevertheless that contrasted institutional arrangements can be imagined to solve the same economic challenge. This is precisely the strong advantage of an alternative vision. For evolutionary theory, globalization is far from complete and

consequently each national economy is facing a specific system of industrial relations, money and credit, education training and State intervention. Still more firms do not adapt passively to a given price system but they try to find out niches more or less insulated by oligopolistic competition.

Within such a vision, there may exist a multiplicity of punctuated equilibrium and not a single one. Consequently, the very simple dynamics of convergence is only one out of many other evolutions: cumulative divergence, catching up and collapse, catching up and then forging ahead, partial convergence and then stabilisation of the productivity gap,.... So, the simplicity, however largely erroneous, of convergence theory is usually preferred to the complexity of evolutionary models, which nevertheless are richer and fit better with empirical evidences about long run capitalist growth and the coexistence of contrasted national trajectories.

But then, how explain such a common belief in convergence theory? In fact, the model that is thought to be the target of convergence changes, either periodically, or during critical episodes. In the 90's, interest in convergence theory has re-emerged precisely because the Japanese productive system and "régulation" mode are viewed as an alternative to the previous model, the American mass production system. During such a period, since no natural law is driving convergence, the very model held up as an object of emulation and imitation is usually chosen through a political process and not only by following the evolution of the market. Which model is chosen has an important impact on the probability of convergence. For instance, in the 70's, France was adopting a lot of the elements of the US model, and its economy was considered to exhibit a miracle. When the international regime broke up, new technologies changed the sources of social competitiveness, it turned out that the French institutional system was now lagging behind the new model, possibly evidenced by the German or the Japanese cases. Similarly, if nowadays so many firms and governments want to imitate and adapt the so-called Japanese methods, this is less a proof for an invincible convergence and a Japanisation of the world, than an evidence of a drastic change in the model to be

emulated. This is triggering a process of trials and errors which may end up by a consolidation of past national trajectories.

The post world war II growth, that may seem the more favourable to the convergence thesis, does not contradict this broad interpretation. Even if internationalization is now more extended, there is not any strong reason to believe that the national flavour for institution building will vanish and be replaced by the diffusion of Japanese methods. If one manager may conceive to translate some of Toyota's productive methods, who would dare to transpose all the idiosyncrasies of the Japanese society ?

This decade and the next century too are likely to be still the epoch of nations. The complex set of contradictory forces which are pushing simultaneously toward convergence and divergence are far from moving towards a single best institutional design. This hypothesis has proven to be erroneous and obsolete in industrial organization. Would not it be ironic if social scientists adopted such a simplistic hypothesis at the very moment when the process of trial and error is more uncertain than ever in Europe, North America and Japan? The shakiness of convergence theory is well evidenced by the answer to a falsely simple question: who does know toward which system will converge Russia, Poland...or even Germany during next century?

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