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The Post-Fordist World. Labour Relations, International Hierarchy and Global Ecology


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ABSTRACT

This article was first presented as the *RIPE* annual lecture at Durham University on 7 November 1995. It seeks to explore the transformation of the capital-labour relation in the aftermath of the postwar crisis of Fordism. It examines how various solutions to this crisis, in the developed world, the newly industrialized world and, latterly, the former socialist bloc, have brought about a radical restructuring of the world's economic hierarchy. One consequence has been the emergence of continental blocs characterized by the heterogeneity of the economic systems within their sphere. The coexistence of countries with differing labour regimes within integrated continental blocs is the primary focus, with each bloc analysed in turn for its particular aspects. This leads to consideration of the possibility of a third international division of labour. The article concludes with an examination of an unexpected consequence of this restructuring, namely the relation between systems of labour-capital relations and attitudes towards global ecological crisis.

KEYWORDS

Taylorization; post-Fordism; ecology; international division of labour; continental blocs; international hierarchy.

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In his provocative essay, Jean Christophe Rufin (1991) compared the new structure of the world (the post-Cold War world, that is) with the Roman Empire of the fourth century *AD*: a zone of prosperity organized on the basis of a tetrarchy, isolated from a barbarous and unknown hinterland by a belt of enslaved kingdoms. In place of these the contemporary world offers: a developed world organized around three continental blocs led, respectively, by the United States, Germany and Japan; a periphery that has become defenceless against the dominant economic forces (Latin America, Africa, the interior of India, and China); and, between the 'Empire' and the 'Barbarians', numerous intermediary, 'emerging', powers who dream of joining the Empire, of becoming 'Roman citizens', in other words being members of the OECD. This description is an accurate one and the present study seeks to explain one of its foundations: the transformation of the capital-labour relation.

The crisis of the dominant postwar wage relation, *Fordism*, has engendered many changes in the countries of the developed world. Some have privileged 'flexibility' while others have stressed the 'mobilization of human resources'. The newly industrializing countries have accentuated their competitiveness and specialized amongst themselves. The result has been a vast reshaping of the world's economic hierarchy. Another tendency has manifested itself with more and more force: the concentration of international economic relations into continental blocs (Europe, America,

Asia). What these three blocs have in common is the heterogeneity of the economies of which they consist. It is precisely this *coexistence of countries with differing labour regimes within an integrated continental bloc* to which this essay is devoted. As we will see, however, the American bloc has chosen a different route from the other two, a fact that explains its relative decline, analogous to the decline of Rome faced with the rise of Constantinople.

In the first section, we study the routes out of the crisis of Fordism followed by the dominant economies. We then widen the analysis to include other economies. In the third section, we sketch out a hypothesis of a new (third!) international division of labour. In the fourth, fifth and sixth sections, we return to the contrasting characters of the three blocs. In the seventh section we examine an unexpected consequence of this new hierarchy, relating to the focal point of the future of the globe: the attitude taken towards global ecological crisis. [1]

I THE CRISIS OF CENTRAL FORDISM AND ITS CONSEQUENCES

1 The rise and fall of Fordism [2]

Let us recall briefly, first of all, what Fordism was. Like all models of development, it can be analysed in three ways. First, as a general organizing principle of labour (or 'industrial paradigm'), Fordism was Taylorism plus mechanization. Taylorism signified a strict separation between the organization of the production process, which was the task of technical offices, and the execution of standardized and formally prescribed tasks. According to this principle, the involvement of direct labour was not supposed to be necessary in carrying out the prescriptions of the technical office. Second, as a macroeconomic structure (or regime of accumulation, or social structure of accumulation), Fordism implied that gains in productivity resulting from these organizational principles would have their counterpart partly in an increase in financial investment from profits, and partly from the increased purchasing power of wage labourers. Third, as a system of rules (or mode of regulation) Fordism implied a long-term contractualization of the wage relationship, with rigid controls over redundancy, and a monitored increase in salaries indexed to prices and general productivity. In addition a vast socialization of revenues through the welfare state assured a permanent income for wage labour.

Demand, on the Fordist model, was thus pulled by salaries set in the domestic market of each advanced capitalist country taken separately. External constraints were limited by the coincidence of growth in different countries, by the limited importance of the growth of international trade relative to the growth of domestic markets and by the hegemony of the United States economy.

The first and most obvious reason for the crisis appeared on the 'demand-side'. Competitiveness between the United States, Europe and Japan levelled out. The search for economies of scale induced an internationalization of productive processes and of the markets *between developed countries*. Price increases for primary commodities imported from the south (particularly oil) stoked up the competition for exports at the start of the 1970s. In the end, firms from Fordist countries increasingly sought ways to overturn labour regulations by *sub-contracting production* to non-Fordist countries, 'the socialist bloc' or 'newly industrializing countries' (NICs). Regulation of the growth of domestic markets through wage policy was now compromised by the necessity of balancing external trade.

Faced with this 'demand-side' crisis, the first reaction of international elites was clearly Keynesian, the main idea being to coordinate the maintenance of world demand. However, at the end of the 1970s, a major limitation appeared: the fall in profitability. This was caused by several 'supply-side' problems: the slow-down in productivity, the growth of total labour costs (including indirect income from the welfare state), the worsening of the capital/product ratio, and the increase in the price of primary commodities. Hence attention turned towards 'supply-side policies', in

other words towards the capital-labour relationship.

These 'supply-side' problems are open to two interpretations. One considers the growth of prices relative to labour as the result of the long boom of the Golden Age ('profit squeeze': Itoh, 1990, Armstrong *et al.*, 1984), and this analysis became the official explanation at the end of the 1970s. Profits were low because workers were too strong, a product of the fact that the rules of the game were too 'inflexible'. Policies of '*liberal flexibility*' were put in place by the governments of the United Kingdom and the United States, eventually followed by most OECD countries. This repudiation of the long-standing social compromise attained different degrees and was drawn on different fronts: from the rules governing wage rises to the breadth and depth of social security, from the liberalization of employment laws to the proliferation of insecure jobs.

But the experience of the 1980s did not go in favour of those who had made the most consistent efforts towards flexibilization: the United States, United Kingdom, France, etc. On the contrary, these countries suffered simultaneous deindustrialization and a deepening deficit in the balance of payments for manufactured goods. By the end of the 1980s, the victors from this competition (Japan and West Germany) seemed to be characterized by an *alternative* solution to the crisis of supply.

To return to the theoretical explanation for the 'supply-side' crisis of Fordism, an alternative explanation lies in the erosion of the effectiveness of Taylorist principles. Full employment was able to explain the decline of profitability at the end of the 1960s but not the continuation of that tendency in subsequent years. At a deeper level, the elimination of the use of the intellectual capacities of direct labour in carrying out production processes today seems irrational. Taylorism is a good method of ensuring supervision, *direct control*, over the output of labour (Friedman, 1977). Better still, however, the encouragement of '*responsible autonomy*' on the part of the workers leads to a superior organizational principle, particularly when putting new technologies into operation, or for 'just-in-time' methods of managing the production cycle, which presumes the use of all the knowledge of the workforce and their willing cooperation with supervisors and engineers. This was precisely the alternative route chosen by numerous large firms in Japan, Germany and Scandinavia. There, pressure from the unions and other traditional organizations promised the choice of a solution to the crisis of Fordism based on the *negotiated involvement (or commitment) of the workers*.

By the end of the 1980s, the superiority of this choice was becoming increasingly recognized. However, at this point in our inquiry, liberal flexibility and negotiated involvement might seem to be practices which can be combined 'à la carte'. Indeed, this idea lies at the root of one conception of 'post-Fordism', the 'flexible specialization' of Piore and Sabel (1984). We will see that in fact these options are not mutually compatible.

2 After Fordism, what next?

In fact these two policies of resolving the supply-side crisis can be considered as the two axes of a graph, relating to the two characteristics of Fordist labour relations: on one hand the rigidity of the employment contract, and on the other Taylorism as a form of direct control by the management over the activities of the workforce (see Figure 1). The first policy proposes an evolution from 'rigidity' to 'flexibility' in the wage relation, the second proposes an evolution from 'direct control' to 'responsible autonomy'. The vertical axis relates to the 'external' aspects of the wage relation, the link between the company and the worker in search of employment and a wage. The horizontal axis relates to the 'internal' aspects, the form of organization and the cooperation /hierarchy inside the firm [3]. On this axis we might refer to Ohnism, as opposed to Taylorism, in homage to the theorist of Japanese production methods developed, in particular, by Toyota (Coriat, 1992). On the vertical axis (external), there are several dimensions regarding rigidity and flexibility, as we have already indicated: the 'external market' is a more or less organized market. The axis under consideration is, in fact, a synthetic one. In addition, rules can be established at the level of the individual, the profession, companies, sectors or society. For the horizontal axis, the 'internal axis', there are also several dimensions: the 'involvement' can signify levels of skill, horizontal cooperation, participation in the definition of tasks

and controls, or negotiation of industrial restructuring and all that follows from it. Here again the axis is a synthetic one. But we notice immediately that the level at which worker involvement is negotiated imposes limits as to possible flexibility.

Involvement can be negotiated individually and augmented with bonuses, career prospects or other benefits. While this option is not contrary to the greatest external flexibility, it is limited by the collective character of the involvement required in most cooperative production processes (I in Figure 1).

Involvement can be negotiated firm by firm, between the management and the unions (F in Figure 1). Here, the company and the workforce reap the rewards of specific skills accumulated in the course of a process of collective apprenticeship. This implies an 'external' rigidity of the employment contract at the level of the firm; that is to say, limits are placed on the rights of redundancy of the workers already in the firm.

Involvement can be negotiated at the sectoral level (B in Figure 1), a policy which limits the risks for the firm, brought about by 'social dumping', and inducing the standardization of professional structures. The result is that the 'external labour market' has a strong chance of itself being better organized, albeit on the whole more 'rigidly'.

Involvement can be negotiated at the level of the whole society (S in Figure 1), unions and employers' associations negotiating social priorities and the distribution of profits at a national [4] or regional level,

[Figure 1](#) Evolutions of post-Fordism: the advanced capitalist countries

with the understanding that the unions watch over what 'their people' do for their part at the shopfloor or office level. Here, the external labour market has a chance of being as well organized as in the most 'corporatist' or social-democratic Fordism.

Contrary to this, the collective involvement of workers cannot appear if there is no common purpose between firms and their personnel, that is to say in the context of 'external flexibility', and that at the appropriate level (individual companies, a branch or a territory). Thus the limited compatibility between 'flexibility' and 'negotiated employment', appears as a curve linking our two axes, forming a triangle of inconsistency which combines flexibility and negotiated collective involvement. This combination remains evidently possible where it concerns, within the same society, several *différent* segments of the labour market. That which is excluded *in general* is the negotiated employment of a collective of flexible workers - that is to say, the model put forward by Piore and Sabel.

These two axes therefore constitute two privileged lines of evolution, in other words two real paradigms (see [Figure 1](#)):

External flexibility associated with direct hierarchical control. This reminds us of a form of Taylorist organization of working practices, without the social benefits of the Golden Age of Fordism. We will call this paradigm 'neo-Taylorism'.

External rigidity of the labour contract associated with negotiated involvement by producers. We will call this paradigm 'Kalmarism', in honour of the first car factory (Volvo) reorganized according to the principle of negotiated involvement in a social-democratic country, Sweden. The factory eventually closed for reasons that we shall see.

If we come back to the recent experience of OECD countries, they seem to differ from each other in a range of trajectories stretched out along the coherence curve between the two axes, with the USA and Britain privileging

flexibility and ignoring negotiated involvement, certain countries introducing negotiation at an individual level (France), Japan practising negotiated involvement at the (large) company level, Germany doing so at the sectoral level and Sweden closest to the Kalmarist axis. Japan seems to occupy an intermediary position, which we will call 'Toyotism', with a strong duality (rigid /flexible) in its external labour market.' [5]

II THE REST OF THE WORLD: TOWARDS WHICH POST-FORDISM?

While the east developed completely original forms of labour relations (dubiously self-designated as 'socialist'), one can define the south as a collection of countries which have managed to imitate neither the western nor the eastern models. 'Heterodox' models (in other words, including certain aspects of eastern models) seemed like a way of catching up with the west, even in non-socialist countries of the south. This is why, in spite of the current archaeological approach taken to the study of real socialism, it is interesting to recall some of its traits, the vestiges of which can still be found in a number of the countries of the new periphery.

1 An extinct model: 'socialism'

Very early on, the Soviet Union was characterized, in general terms, by: a technological paradigm inspired by an unsuccessful Taylorism; a regime of accumulation founded on import substitution under the protection of a total customs barrier; and a compromise between the leaders of the state and wage labour negotiated by a single body (the party state), and guaranteeing certain interests of the labour aristocracy. [6] This form. of regulation admits weaker variants which we might call 'corporatism'.

[Figure 2](#) Post-Fordism in the south and east

This triptych (unsuccessful Taylorism, import substitution, corporatism) can be found in all those Third World countries which tried to industrialize between 1930 and 1970. On the two axes of our graph ([Figure 2](#)), it is characterized by 'more rigidity' than Fordism. (*tenure*) and a level of negotiation with the worker aristocracy situated between the firm. and the sector (Köllô, 1990). The crisis of this model, principally being blamed on its rigidity, has led to a general orientation towards flexibility and 'rationalization', that is to say towards the bottom left.

2 Rural giants with import substitution

China and India are two immense southern countries which have adopted in large part the Soviet model, the main difference between them, and the countries of eastern Europe being their enormous rural populations.

China has benefited from agrarian reform. and from the strict organization of the rural community. As a result, it was not until the end of the 1980s that there was a massive exodus towards the towns. This took the form of a 'hidden Lewisian' situation, an artificial shortage of urban workers dedicated to the quasi-Soviet strategy of extensive accumulation driven by import substitution. However, from 1958 to 1976 China saw several waves of experimentation affecting the technological paradigm. (imitating Toyotist forms of management control by workers) and the mode of regulation (experiments with decentralized planning). It is difficult to appreciate to what extent these 'microeconomic revolutions within the socialist revolution' (Riskin, 1990) might ironically have prepared the ground for the ultimate 're-establishment of capitalism' in China after the victory of Deng Xiaoping over the heirs of Mao Zedong.

In India one does not find fundamental reform in this way: there was never 'state socialism', nor was there true

central planning. And yet many aspects of the Soviet model are visible in the industrial history of India after independence. The import substitution policy directed by the state encouraged the development of an important tertiary and industrial structure oriented towards the domestic market, in which wage-earners benefited, as in the 'socialist countries', from the principle of 'tenure' - that is to say from a marked stability of employment founded on political considerations (Sector I according to Mohan-Rao, 1990). There was little consultation of these workers, as in socialist countries, and yet they were not exactly Taylorized.

The major difference with China is the permanence of a body of workers integrated into capitalist relations through various types of 'out-working': Sector II according to Mohan-Rao (1990). In this way a second archipelago of industrial wage relations appears in the ocean of rural India. For cultural and historic reasons Taylorization here has never achieved the degree of absolute control. In [Figure 2](#) this process is represented by an arrow coming into the diagram from the bottom right.

The current of economic liberalization during the 1980s probably pushed Indian and Chinese industrial relations towards the classic forms of primitive Taylorism. With the beginnings of international interdependence, Sector II was driven towards deeper forms of direct control without notable improvements in either real wages or social legislation. The principle of tenure had to be abandoned in Sector I, though there remained possibilities for privileged fractions of the workforce to negotiate a limited flexibility.

The Indian model is extremely interesting, because it represents, in a caricatured way, certain Latin American 'Cepalian' developments, that is to say, those which most conform to the theories of CEPAL [\[7\]](#). This model includes the construction, by way of import substitution, of a modern industrial sector, often under the aegis of a populist state, and subsistence agriculture based on archaic social relations engendering a continuing exodus from the land.

Here again one finds, in the typical forms of Mexico and Argentina: Sector I where a relatively 'rigid' worker aristocracy brings about a brutal flexibilization and a 'rationalization' (in fact a Taylorization) of organized labour; and Sector II of peasant origin which is urbanized and brought into the tertiary and industrial workforce either by a chaotic process of the development of the 'informal' sector, or by direct entry, with flexible labour contracts, into Taylorized enterprises.

This new form of peripheral industrialization ('new' relative to the Indian, Chinese, Cepalian or import substitution models) must now be examined on its own merits.

3 The newly industrializing countries - where next?

During the 1970s the NICs emerged, of which Brazil and South Korea are the most important examples. I have examined aspects of their development models elsewhere under two headings: 'primitive Taylorism' and 'peripheral Fordism' (Lipietz 1985a).

Primitive (or bloody) Taylorism

This concept encapsulates the delocalization of certain limited Taylorist industrial activities towards social formations with very high rates of exploitation (with regard to wages, the length and intensity of work hours, etc.), the products principally being re-exported to the more advanced countries. During the 1960s the tax-free zones and sweatshop states of Asia were the best illustrations of this strategy which has become widespread today. Two characteristics of this regime need to be noted. First, activities are primarily Taylorist but relatively poorly mechanized. The technical composition of capital in these firms is particularly low. In this way, this strategy of industrialization avoids one of the inconveniences of import substitution: the cost of importing large quantities of equipment. Also, given that this

strategy mobilizes a largely female workforce, it incorporates all the traditions of domestic patriarchal exploitation. Second, this strategy is 'bloody' in the sense that Marx spoke of 'bloody legislation' at the outset of English capitalism. To the traditional oppression of women, this strategy adds all the modern weapons of anti-labour repression (official unions, absence of civil rights, imprisonment and torture of opponents).

Peripheral Fordism

Like Fordism, this is based on the conjunction of intensive accumulation and the growth of the final markets. But it remains 'peripheral' in the sense that, in the global circuits of production, skilled labour (particularly in design and engineering) remains largely outside the country in question. In addition, outlets correspond to a specific combination of local middle-class consumption, the growing consumption of durable goods by the workers and the export of low-price goods to the central capitalist countries.

The example of Brazil

Brazil began to industrialize more precociously and with greater success than India, though on a very similar model. The military coup d'état of 1964 removed *de facto* the social benefits of the Vargas administration. As a consequence, the 'scientific organization of labour' (Taylorism) developed without any limit other than its technological dependency, and the bloody suppression of trade unions delivered a 'flexible' workforce to capital. By the end of the 1960s and the early 1970s Brazil had developed a very competitive industry, achieved its import substitution and built up an industrial export market. The returns from this primitive Taylorism were reinvested in the development of a dualistic peripheral Fordism. One section of the population (the new middle class) established for itself a quasi-Fordist way of life, salaried workers benefiting in the second half of the 1970s from the growth in productivity resulting from mechanization and rationalization. This sector comprised the greater part of the 'formal sector' (Amadeo and Camargo, 1990). Beyond this, the vast majority of the workforce remained outside the Brazilian miracle: the 'Lewisian' former peasantry, informal workers and poorly paid formal workers in small firms. With the 1980s came the explosion of the debt crisis, and then came democracy. The process by which this came about is complex. Conflicts over distribution took centre stage in industrial conflict. Labour relations were unable to stabilize in this constant turmoil involving the marginalized 'Lewisian' reserve army, the informal sector, and different levels of the formal sector. In this chaotic situation Brazil's future stayed open to three possibilities: a return to primitive Taylorism, a consolidation of peripheral Fordism and even an evolution to Fordism with local moves towards aspects of Toyotism.

In comparison, the revolution that took place between 1985 and 1987 in South Korea had inherited a much more propitious situation. At the root of it all was agrarian reform during the 1950s followed by rural income support. Primitive Taylorization in Korea did not stay under the constant pressure of a Lewisian reserve army. The entire workforce was employed under a flexible labour contract, but it was formally employed. In addition the state took great care to plan export capacities painstakingly in such a way as to ensure the repayment of debt. Women endured terrible overexploitation, especially in the export sector, but ordinary family incomes rose throughout the 1970s and accelerated in the 1980s. By the end of the 1980s, Korea had seen a transition from primitive Taylorism to peripheral Fordism. Moreover, in the male working class, company loyalty developed in such a way as to prepare for the use of certain aspects of Japanese-style negotiated involvement at the company level (You, 1990).

Thus Brazil (or Mexico) and Korea followed almost completely opposite strategies during the 1980s. This differentiation between NICs is just as important as that between Fordist countries ([Figure 2](#)).

III TOWARDS A THIRD INTERNATIONAL DIVISION OF

LABOUR?

We are not going to pursue *here the* debate over the stability (macroeconomic, sociopolitical or ecological) of different national models of capital-labour relations. [8]

Rather, we are going to examine the possibility of the *coexistence of nations with different models* at the heart of an increasingly internationalized world.

The problem is that current *theories of* international trade are handicapped by out-of-date assumptions. One is in effect forced either to propose (along with Adam Smith and the marxist-dependency tradition) that there is a *single* optimum way to manufacture each product, and thus that it must ultimately be used, to the benefit of the country that masters it: the theory of *absolute advantage*. Or, on the contrary, one can allow an 'arc' of combinations of factors within a single technological paradigm, in which case there is a division of labour dictated by the initial endowment of various factors of production in each country: the Ricardian theory of *comparative advantage*. We have a situation today where the 'factors' (capital and labour) are completely mobile, [9] but where the *manner* of their combination (technological paradigm, labour relations) differs from one country to another.

1 The first two international divisions of labour

The 'first international division of labour', which prevailed up to the 1960s, illustrates the pertinence of Adam Smith's intuition. From the instant that certain goods become objects of international trade, their production tends to be concentrated in those places in which the conditions of production are most appropriate (according to natural conditions - climate, topology - or cultural conditions - social organization, know-how). This concentration becomes relatively stable over time because economies of scale protect older industrial centres against newer locations. New centres of production can only appear under the protection of a 'natural' monopoly (distance) or an artificial one ('infant industry' protection).

From the instant that manufacturing, and more importantly heavy industry, appeared in England, the greater part of manufacturing production came to be concentrated in those countries which could adopt the same industrial paradigm, with more or less protection. The others could only work themselves into world trade by making 'other things', that is to say *other products*, specializing in sectors where they could command an advantage (most often geographic) as *absolute* as England. The first international division of labour (manufactured exports/exports of primary goods from agriculture or mining) was, thus, an *intersectoral* division.

However, with the NICs, primitive Taylorism and, above all, peripheral Fordism, a *new international division of labour* appeared. Now, a technological paradigm appeared to be partially transferable, and at little cost, from one country to the other. Since then, the least skilled and least mechanized sectors of the Fordist work process could be more competitively located in low-wage regions or countries. Does this signify a return of Ricardian theories of comparative advantage? Far from it.

aFirst of all, it was not a matter of the comparative advantage between factor endowments proper to each sector, but of the difference in cost of the labour factor for different sections of the production process *within the same sector*, or more or less the same administrative procedures organized according to a unique technological paradigm. The Fordist division of labour could in effect be schematized in three broad parts: [10] conception, engineering and organization of labour; [11] skilled manufacturing; [12] unskilled (including tertiary) routine tasks. However, the standardization of procedures typical of Fordist mass production allowed a geographical delinking between these three types of tasks. From that it follows that it is 'natural' to locate these three types of tasks where the workforce exists which provides the best quality-cost ratio. It is therefore a matter of the *absolute advantage in a division of*

labour within the sector.

Primitive Taylorization thus corresponded to the location of those segments under 'type 3' in the lowest-wage countries, *peripheral Fordism* to add the location of type 1 and especially type 2 in countries with low incomes but already able to offer a skilled workforce and more developed technical capacities. This is the 'economistic' schema of the second division of labour.

Nonetheless, the reality of the dynamics of the NICs cannot be reduced to this economistic schema of the relative cost of the labour factor. First, industrial organization, transport costs and the location of markets *matter*. One cannot simply relocate the sort of activities under 2 and 3 just anywhere. It is important to maintain a certain synergy between the skills of the labour market, the industrial fabric and the structure of local demand. The simplistic portrayal of Asian free trade zones or of the *maquiladoras* of the northern Mexican border, where links in the production chain are relocated to the 'south' (wherever the wages are lowest) to service the markets of the 'north' (wherever demand is richest), corresponds only to a very limited part of world manufacturing activity.

Above all, and even when confined to the 'supply side', the discriminating factor (here, labour) is a social construction. It is not enough that the workforce be abundant ('Lewisian'), or all the countries of the Third World would have become NICs. It must be at the same time free of other restraints (rural, familial, religious), disorganized either through repression or tradition (female workers), but nonetheless accustomed to the discipline of industrial labour. Briefly, the much vaunted 'labour factor endowment' is in fact a social characteristic constructed by the local society: hence its appropriateness to the Taylorist-flexible paradigm that we identified in the first part of this text. [\[13\]](#).

2 The coexistence of post-Fordisms

When from the beginning of the 1980s the Fordist compromise was overtly criticized and found to be obsolete, the spontaneous reaction was, once again and conforming to the lessons of history, to try to identify what would be 'the' new hegemonic form of the wage-labour relation. The first half of the decade, marked by the successes of Reaganism, witnessed the triumph of the idea that 'the' solution to the crisis of Fordism was the (external) flexibilization of labour contracts. There was criticism of the 'Euro-sclerosis' attributed to the 'rigidity' of wage relations. Then, after the crash of 1987, when the decline of the USA and the impasse into which Reaganite 'deregulation' led had become evident, and when the technological and financial superiority of Japan and Germany was affirmed, it was recognized that models of crisis resolution based on the 'mobilization of human resources' outclassed those models based on flexibility.

Today the difficulties faced by Germany and Japan call for greater prudence, while the competition between the NICs of Asia and even of Latin America seems capable of imposing a single norm on the whole world: ever lower wages and ever more flexible labour contracts. In all cases, it is assumed that one of the two paradigms outlined here has an absolute advantage over the other, and that it will ultimately eliminate it.

That one cannot always tell which it will be, however, must give pause for thought. First of all, it is evident that our two paradigms are insufficient to define a coherent model of development on a world scale. There is not, at the very least, an international mode of regulation for effective demand. The world economy has become, as it was prior to the 1950s, globally competitive and thus cyclical. There is no reason to suppose that these cycles will respect the dominant model (whether it is that of the US, Japan or Germany). Moreover, the quite exceptional events of the dissolution of the 'socialist' bloc, and its reconversion to market capitalism, for the moment successful in China and a failure in Europe, cannot help but affect the economic climate and even the structure of neighbouring countries (above all in the case of the reunification of the two Germanies).

Beyond these conjunctural considerations we venture some more structural hypotheses.

a The lesson of the years between 1982 and 1995 is clear. Whatever the policy pursued by the United States (over- or under-valued dollar, crazy or negative real interest rates, a controlled or uncontrolled budget deficit), the deficit in the balance of goods and services has become structural, to the tune of \$10 billion a month. On the other side, whatever the difference in economic climate from the USA, the trade balances of Japan and Germany (apart from the period immediately following reunification) have stayed positive. *From the point Of view of intercapitalist competitiveness, negotiated involvement outclasses neo-Taylorism at least on an important range of tradable goods and services.*

b The world is organized into three continental blocs, with at their heart a centre-peripheral division of labour founded on different combinations of the two basic post-Fordist paradigms.

This tendency towards the recontinentalization of the world economy (Asia and the Pacific around Japan, the Americas around the USA, Europe around Germany) results primarily in the 'return of geography': in '*just-in-time*' management techniques, distance and transaction costs take on a renewed importance. It is also an attempt to regulate the international macroeconomy 'between neighbours'.

Within these blocs, there are evidently countries which are very unequally developed, with centre-peripheral relations, whether they are in the first, second or third divisions of labour. These hierarchies are mobile: the 'peripheral' countries progress, the dominant countries resolve, more or less successfully, the crisis of Fordism and, moreover, they resolve it differently, privileging one or other of the paradigmatic axes that we have already defined.

Our second hypothesis focuses more closely on the possibility of the coexistence of the two paradigms within the same integrated continental space, with a *third international division of labour* existing between countries rallying to one paradigm. rather than the other. Let's be precise: it is not a question of producing, in different ways, very different products, as in the first international division of labour, nor of specializing, as in the second international division of labour, in different types of task within the same Taylorist paradigm and converging in the same sector, but of producing similar products, *in a different manner*.

This is possible because neither paradigm surpasses the other absolutely, but only *comparatively*, according to sectors and sub-sectors. From this, a Ricardian formalism can retrieve its heuristic value, on condition that the notion of 'the initial allocation of factors of production' is replaced by that of '*the social construction of the adaptation to a paradigm*'. This social construction is a complex social fact which we will not explore here (see Leborgne and Lipietz, 1988). Let us say simply that the adoption of 'flexible' and 'negotiated involvement' paradigms corresponds respectively to 'defensive' and 'offensive' strategies of crisis resolution on the part of the elite of the state or region in question.

A useful way of formalizing the differences of social adaptation is by recourse to a renewed conception of the *theory of agency*. Those organizing production (the *principals*), who act as employers or contractors, have the choice between two attitudes towards their subordinates (*agents*), who are wage labourers or sub-contractors:

one of trust (and its reciprocal, responsible autonomy), which allows the maximization of the quasi-rent relative to other competitors, but implies a more equal distribution of this quasi-rent;

· one of distrust, which implies direct control over the subordinate agents. This certainly allows the maximization of that part of the product appropriated by the Principal, but not ultimately the total product of this type of association.

It is clear that the option between 'trust' and 'distrust' depends on extra-economic sociopolitical determinants. It seems that, in post-Fordism, these differences have varied effects according to the sector, which gives pertinence to the theory of comparative advantage. Thus one would have, according to the argument presented in the Appendix and [Figure 3](#) (p. 18), the transposed Ricardian theorem: *those sectors most sensitive to the involvement of direct producers tend towards regions or sections of the labour market that are relatively more skilled and less flexible; those sectors most sensitive to low labour costs tend towards regions or sections of the labour market that are more flexible.*

In this way we can understand the success of the 'Toyotist' model: if, within the same society, we can find two types of labour market, then the possibility of negotiating labour relations at a company level allows the optimal adaptation of the range of sectors. The more 'Kalmarist' national models will be handicapped by the rigidity and excessive costs of labour in the routinized sectors. The more flexible (neo-Taylorist) national models will be handicapped by those sectors requiring the greatest skill. On the other hand, those countries which stick to the classic Fordist wage relation (rigidity plus Taylorism) will be gradually outclassed from above and from, below.

A series of corollaries results from the 'transposed Ricardian theorem'.

Corollary 1

Those countries practising negotiated employment will attract industries with the highest added value (per worker) and those with the greatest skill content.

Corollary 2

Among these countries, the most competitive will be those where involvement is negotiated at the lowest level (ideally: according to the Toyotist model).

Corollary 3

There are still countries which are too Fordist (too rigid for such an overly weak involvement) or with too low a skill level despite extremely low labour costs. In such countries *exclusion* develops, which is to say that the labour supply is of no interest to capital.

Let us now abstract the *internal* differentiations within states, considering only their relative positions on [Figure 2](#). We can see that, in a continental bloc displaying the full range of alternatives, the more skilled sectors tend to be polarized towards the top right. There we find the highest salaries, the highest qualifications, the greatest 'internal flexibility', and thus the greatest capacity to introduce new processes and to design and test new products: in a word this acts as the 'centre', in the traditional double sense of that term (as used by F. Braudel, I. Wallerstein, S. Amin and others). The progressively more routinized sectors are polarized towards those countries located more and more to the bottom left, which can only maintain their competitiveness with ever more extreme flexibility and ever lower wages, to the point that they risk the charge of 'social *dumping*'. That is to say (in a declining ranking towards the 'periphery') the old Fordist countries which are becoming increasingly neo-Taylorist, the peripheral Fordist countries increasingly inclined to primitive Taylorism ([Figure 4](#)).

3 The differentiation of continental blocs

[Figure 2](#) is best illustrated by the example of the European bloc. It is evident that this hierarchy is not as clear in Asia

or the Americas. One of the main reasons for this is obvious: the American bloc is dominated by a state, the USA, which does not adhere to the dominant technological paradigm. The American bloc thus suffers from a double weakness:

its centre is itself dominated by other centres;

· as a corollary to this, it can barely dominate its own periphery.

·
These two consequences can be identified empirically as follows.

a) *The devaluation of American labour*

The per capita GNP is a useful indicator of a society's productivity and of the average purchasing power of its members. For international comparisons, there are two ways of comparing the value of this index:

by the current exchange rate. In an internationalized world (which is to say that there is no significant difference between the supply price of products on the domestic or international markets), this index measures, more or less, the effective capacity of one country's labour product to buy part of the labour of another country.

according to the parity of purchasing power (PPP). It acts this time as a theoretical index, calculated according to the fictional exchange rates which would equalize the price of the same basket of goods and services in different countries.

This second index seems to correct the incapacity of current exchange rates to compensate for differentials in inflation. To the extent that people spend their earnings in their own countries, this index allows the comparison of the *mean standard of living* in different countries. One can therefore speak of an 'index of international volume'. If all countries produced the same thing in the same way, it would play this role effectively and, moreover, it is probable that exchange rates would effectively align themselves to the PPP.

This is never the case, not even within the OECD ([Table 1](#)). Different countries are situated at different levels within the three international divisions of labour. Those countries producing goods and services of the highest 'quality' and according to the dominant paradigm are not only more productive (they produce 'more', which is to say that their per capita GNP is superior 'by volume'), but in addition the product of their labour is better valued on the international market (they sell 'dearer'). This second aspect is captured by the ratio of their per capita GNP 'at current exchange rates' on the same index as 'according to PPP'. This ratio might be called the '*index of international value*'. The index of international value expresses, albeit partially, an exchange rate policy. But experience has shown that it is not possible to preserve in the long term an over-valued exchange rate. [14] The index therefore suggests a structural characteristic.

In [Table 1](#), the per capita GNP is expressed in dollars according to the two modes of conversion: hence the value of US labour is 1 by convention. It is immediately notable that:

Japanese and German labour is considerably over-valued in relation to American labour (and this is true even of the unified Germany) without any damage to their trade balances;

the labour of all the peripheral countries in the three divisions of labour is under-valued, and, in each bloc, each country is under-valued with regard to its respective centre.

b) *The weak integration of the American bloc*

The 'regionalization' (in fact the continentalization) of international trade is shown in [Table 2](#). These data need, of course, to be put in context: the separation of 'intra-bloc' trade from 'inter-bloc' trade obviously depends on the chosen delimitation of the blocs and the size of the

countries. It is immediately noticeable, however, that Europe is very integrated, Asia less so and America less so again. Also, while intra-European and intra-Asian trade constantly increases, intra-regional trade in North America declines and that of Latin America stagnates.

[Table 3](#) gives the matrix of trade in *manufactures* only. [15] The results are the same: it is notable that, while the Americas 'disintegrate' exports and above all imports, Asia integrates exports and, more so, imports, and Europe integrates exports even further (it sells ever more to itself) but disintegrates imports (buying more and more from Asia). This result demonstrates the growing export power of Asia, which has triumphed from its two paradigms: Toyotism in Japan and flexibility in the NICs.

IV EUROPE: A WELL-ORDERED HIERARCHY

1 Europe: a hierarchical continental bloc [16]

The principal market of the world, both in terms of value and of population, Western Europe has also been the centre of the world's greatest stagnation since the beginning of the crisis, the only developed capitalist centre where unemployment has remained high in spite of a static population size. This paradox is far from being the expression of an incapacity for technical and social innovation: on the contrary, the Scandinavian countries and the 'Alpine arc' (southern Germany, Austria, northern Italy and Switzerland) have oriented themselves towards negotiated involvement. A glance at the Figures clearly indicates the fundamental problem: during the 1980s, those countries that escaped stagnation and unemployment, Norway, Sweden, Austria and Switzerland, were those that had not been a part of the European Community. This is precisely the disturbing phenomenon that we must explain: the particular stagnation of the EU, presently close to absorbing the whole of Europe.

The primary characteristic of Europe is that it is composed of aggressive exporters (including seven out of the top ten in the world), which compete, however, mainly among themselves. Europe has achieved a sort of self-sufficiency. The source of this evolution is the intense internal competition, this continental self-centredness being made possible in part by the internal diversity of Europe, which includes at the same time countries with a long manufacturing tradition, newly industrialized agricultural countries and even reserves of fossil energy. But Europe is above all diversified in terms of national strategies for resolving the crisis of Fordism.

Certain countries (the British Isles, southern Europe) play the card of their relatively low wages. Others, by contrast, particularly in Scandinavia, play the card of their socially negotiated mastery over new technologies. Almost the whole range of consequences emanating from the crisis of Fordism are represented in Europe, where one finds a 'centre' (which grows in international value) and a 'periphery' (which only grows in volume). This is insufficient to counter, in automobile and electronics production, Japanese organizational superiority, and in textile production, competition from Third World countries with very strong exploitation of their labour force. This is why Europe also plays at protectionism: against Japanese cars, Asian textiles, Argentine beef, etc. But it would be a grave error to reduce the self-centred structure of Europe to protectionism. The relentless 'anti-dumping' underlines the European preoccupation with the maintenance of internal social compromises. But the greatest menace to these compromises stems from the *institutional* structure of Europe itself. This we shall now examine.

2 The macroeconomy of the Single Market

We can schematize the situation in Europe up to 1992 [17] in the following manner:

- ▶ Europe is potentially self-sufficient.
- ▶ Goods and capital markets are free and exchange rates are fixed.
- ▶ Each country must adjust itself to external constraints without explicit coordination with the others (non-cooperative game).
- ▶ Each nation of the EU can be considered as composed of regions adopting either a strategy of neo-Taylorism. or of negotiated involvement.
- ▶ The offensive strategy (negotiated involvement) surpasses (in terms of competitiveness) the defensive strategy (flexibility) in all sectors, but less so in those labour-intensive industries where a wage differential is sufficient to give the advantage to the defensive strategy.

From the first three hypotheses above, by applying the usual Keynesian considerations (*beggar-my-neighbour policies*: Glyn *et al.*, 1988; Lipietz, 1985a), we can immediately deduce the stagnating tendency. Each country has to adjust in the short term to the constraints placed upon it by the others, by the restraint of domestic incomes and an export push driven by a reduction in the cost of labour per unit produced. As we have seen, this tendency was confirmed by the realities of the 1970s and 1980s. One tends equally to think that in the medium term those countries with the weakest social provision and the lowest wages would develop a competitive advantage over the others, which would lead to a general erosion of social protection (*social dumping*). This would certainly be the case if the organization of labour was of the same type everywhere and if competitiveness was only played out through wage levels and 'defensive flexibility'.

Introducing hypotheses 4 and 5, however, alters the diagnosis. It results in effect that, by the application of the 'transposed Ricardian theorem' of the preceding section, each region tends to specialize in those sectors which use most intensively that 'factor of production' with which it is best endowed, whether it be a flexible and Taylorized workforce, or a skilled workforce with negotiated involvement. Just as the movement of capital is free and the market is in reality unitary, the division of labour within the EU as a whole tends to polarize between regions, by sector (or sub-sector), according to each one's highly particular 'comparative advantages'. It is this that allows Denmark [18] to coexist with Portugal, where wages are five times lower.

The total volume of the 'Single Market' is thus determined by the relatively high wages of those countries where involvement predominates and the relatively low wages of flexibilized countries. The weaker the redistributive choices in the first group of countries, the stronger the constraint towards low wages (and flexibility and unemployment) in the second group. In the absence of a 'concerted strategy' (point 3), the macroeconomic choices of the countries of the first group are thus imposed on all the others and define as a result an equilibrium. of under-employment at the European level.

It is necessary to emphasize that in regions of the centre productivity gains are redistributed (under the title of 'collectively negotiated involvement') within a strict limitation defined by the quasi-rent of competitiveness which confers on them the productive advantage from the involvement of their workers. Since this quasi-rent is itself limited by the difference in competitiveness between the two groups of regions, its preservation implies a structural 'excess

of redistributive prudence' in the regions of the first type, because there is a permanent risk that it will be overturned by an increase in the gap in labour costs with the second type. In other words, whereas the macroeconomics of Fordism were founded on a national, predictable and general redistributive agreement, regional social compromises based on involvement, within a Europe lacking common social legislation, are only tenable as long as they do not compromise the gap in competitiveness between one region and the others, and thus they are not susceptible to being pulled by the demand from the growth of other regions.

By comparison to an analysis which only takes account of the first three points of our stylization, the result is altogether less catastrophic. In place of a reciprocal erosion of national social compromises brought about by intra-community competition, we have a 'two-speed' Europe, a geographical 'leopard skin'. Yet the regional 'spots' of networks of enterprises with the offensive social compromise often include subcontracting and service (to firms and to households) sectors with little social protection and high flexibility. These intra-regional differences may be supported by gender or ethnic differences.

Anyway, this two-speed social Europe could become, by mechanisms that we are going to expose, a one-speed economic Europe, only much slower.

3 Where are we now?

By the end of the 1980s Europe appeared, nonetheless, as a 'quiet force',

progressing in a surer and more stable manner than the Americas, certainly less rapid than the Asian tumult, but with an incomparably high standard of living. Europe seemed to be organized exactly according to the 'centre-periphery' schema in [Figure 4](#). At the very top were the 'Kalmarist' countries of Scandinavia. In the centre, Germany and the 'Alpine arc'. A little lower came France which evolved from Fordism towards a mainly defensive flexibility but with several more offensive islands. Then 'neo-Taylorist' Britain and Spain which retained a peripheral Fordism, then Portugal which was even more 'peripheral' (that is to say more flexible). Beyond that, Morocco and the whole Mediterranean zone of the Preferential Interest Agreement, and further on from that, the (African, Caribbean, Pacific) countries of the Lomé Convention remain rooted in the first international division of labour and try to insert themselves more or less in the second (that is, in primitive Taylorism).

But the fall of the Berlin Wall destabilized everything. In macroeconomic terms, the reconstruction of Eastern Europe could have dynamized Western Europe, if a 'Marshall Plan' policy and thus low interest rates had prevailed. The opposite happened and after two years of Keynesian flogging, restrictive German monetary policy stifled not only the reconversion of the East, but also the internal dynamic of Western Europe.

But over and above this political error, the incoming flood of labour which was *ultra-flexible but also skilled* (that of Central and Eastern Europe) overturned the pre-1989 equilibrium, in particular the top right-hand corner of [Figure 4](#). In many ways the opportunities of 'flexibilisation' swept away the advantages of negotiated involvement (Lipietz, 1992: Postscript).

The Scandinavian model was the first to be thrown into crisis. Brutally deprived of their traditional markets to the east (where one might have hoped to see a 'hanseatic virtuous circle' emerge), Finland and Sweden were forced to admit the structural and competitive weakness of their 'Kalmarist' compromises in a liberal context. The negotiation of the capital-labour relationship at the national level revealed itself as dangerously 'generous' to those sectors, with weak involvement and low productivity gains. This 'generosity' impacted in its turn on the competitiveness of the more productive sectors: significantly Kalmar's eponymous plant is now closed (Sandberg, 1994). From this came a tendency to slide along the curve towards the bottom left: in other words towards sectoral negotiation and the

abandonment of the 'solidarity wage' (Mahon, 1993).

But Germany itself was drawn into the same process. Chancellor Kohl's 'fundamental lie' with regard to the financing of reunification provoked a general destabilization of West German labour relations, the more so because the 'Ohnist' industrial paradigm was already less perfected than that of Japan. Existing sectoral agreements were repudiated and the management of small and medium enterprises went on the offensive to disconnect sectoral negotiations aligning their labour contracts with conditions prevailing in the big firms, which themselves did not hesitate to use the blackmail threat of relocation to more flexible countries, from Portugal to Malaysia (Duval, 1993): in short, a general evolution towards the rules of Toyotism.

This 'flooding' of the centre by the ocean of peripheral flexibility continues for the moment but could be reversed by the development of social and environmental legislation on a continental scale. Unfortunately, the Maastricht agreement by ignoring these two essential chapters, to the contrary, reinforces the rigidity of macroeconomic coupling among different countries (by means of exchange and interest rates). The explosion of its conditions of realization, with two crises of the European Monetary Union (September 1992 and July 1993), has opened out the margins of manoeuvre a little for national macroeconomic regulation and reciprocal adjustment between countries, but augurs badly for the solution of the basic problems, which will need 'more' rather than 'less' Europe.

V. A PARADOXICAL BLOC: NORTH AMERICA

A quick look at [Figure 4](#) brings to light the two radical differences between North America and Europe:

the dominant power on the continent, the United States, is not engaged in the dominant world industrial paradigm;

the centre and the periphery, in being engaged in the *same industrial paradigm*, can only adjust reciprocally by greater or lesser flexibility (on the vertical axis).

The first paradox of the American sphere, therefore, is that the dominant centre (the USA) is no longer dominant on a world scale either technologically, financially or socially. The 1980s saw the 'brazilianization' of the USA (Lipietz, 1985a); and the early years of the Clinton Presidency, in spite of the cyclical upturn, have not reversed this tendency.

As for the organization of economic networks in its sphere of co-prosperity - the word is not well chosen - that is another matter. The USA only controls those on its northern border (Canada) and a single stretch of its southern border (Mexico). The whole of South America, including those countries that were once so promising (Brazil and Argentina), is now caught up in a backward flow of history, highly indebted, too far from a USA which has become too weak, hoping that Japan and Europe will once again show an interest. This seems already to be the case with Chile.

The second paradox is that the USA and its periphery compete on the same technological paradigm, and therefore by greater or lesser flexibility. The result is that the USA seems to be *less* flexible than its own periphery. Yet it is necessary, for the south too, to check the realities of the capital-labour relationship, for there are invocations in the same place (from Mexico to Argentina) to the virtues of *flexibilization* and to the *Japanese model*.

1 'Japanization on the cheap'

The 'flexibilization' achieved in the old Fordist countries, that I have called 'neo-Taylorism', only appears in a relative

sense. Even if the USA 'brazilianizes', it will be a long way from experiencing the low wages and the absence of social provision of the NICs and the Third World. These countries started from an initial position of very strong flexibility, an 'endowment' upon which they relied for the first step of primitive Taylorism and to accede eventually to a state of peripheral Fordism. However, the 'older industrialized countries' of the Third World experienced a 'Cepalian' form of pre-industrialization, with a regime of import substitution and semi-Fordist industrial relations regulated by corporatism: this was the case with Mexico, Argentina and Brazil. Subsequently these countries are now experiencing a certain 'reflexibilization', which eventually couples itself to the proclaimed importation of 'Japanese methods'. [19]

The Mexican Hermosillo Ford plant is without doubt the masterpiece of 'Japanization' in a region of the world typified by 'flexibilization'. It is, therefore, particularly interesting to examine here the reality of the importation of Japanese management methods'. [20] We find that the work at Ford Hermosillo is not found in the end to be the juxtaposition of the Japanese technological paradigm with American flexibility. If this is Japanization, then it is cosmetic and ideological: *Japanization on the cheap*.

The methods used by the management of Ford Hermosillo in their struggle for better product quality and more efficient productive processes are the opposite of the Japanese methods. The manager who guided me through the factory that we visited explained that competition was encouraged among the workers regarding who commits or fails to notice the fewest errors. Put another way, the goal of the method of emulation used by Ford is the execution of each task as perfectly as possible, but with the effect of discouraging each worker from 'socializing' the possible improvements that he might discover through production experience. They see their colleagues as competitors and not as partners; they are only coordinated (as well as opposed to each other) by the vertical (and, therefore, Taylorist) structure of the organization of labour. This is a long way from the spirit of 'horizontal coordination' beloved of Aoki (1990) which is characteristic of Japanese methods.

A very revealing detail emerged when we asked the manager what prizes were distributed as part of this competition. He replied, 'Not money, they would waste it. We give them consumer goods, like tape-recorders, so that they can learn the value of savings.' This moralistic conception of the bonus (I almost asked why they did not offer up an icon to the Virgin of Guadalupe) recalled certain other discourses- those of Henry Ford explaining that the 'good' wage that he passed on to his workers was to help them to adopt a 'good' pattern of consumption, he who sent social assistants to teach the wives of his employees what use they were to make of the housekeeping money.

Far from constituting a real importation of Japanese methods in this 'flexible' (and very low-wage: at about two dollars an hour) country, the organization of labour at Ford Hermosillo in fact represents a sophisticated Taylorization, with little respect paid to the working conditions, but dressed up with the appearance of an incentive policy for the workforce. [21]

2 Mexico: peripheral Fordism at last?

Despite all this, Japanization on the cheap, widely used in Mexico, has a real effect, as all sociologists of Mexican labour have acknowledged. [22] The process of making workers aware of their responsibility regarding quality is a real fact, in contrast to the older forms of Mexican heavy industry, which we might imagine, a contrario, as forms previous to the 'scientific organization of labour'.

True Taylorism plus moralistic (and 'civilizing') normalization of the mass production worker, in a context of ultra-modern automation, brings to mind elements of the Fordism of Henry Ford, as he presents them in his apologetic work. [23] There is a lack of the social conditions of the normalization and regularization of workers' pay. By way of 'Japanization on the cheap', modern Mexico has discovered Fordism, but it is a peripheral Fordism.

That, at least, is the hypothesis that I put forward. Fifteen years ago Mexico was a patchwork of several composite models of development, regionally differentiated: the north was under primitive Taylorism, the centre (Monterrey-Mexico-Puebla) import substitution. [24] The concurrent transformations allowed the convergence of these two contrasting composites towards a true peripheral Fordism:

- ▶ with the rising coefficient of capital, a rise in skill levels and a certain increase in wages, in the older sector of primitive Taylorism;
- ▶ with a 'rationalization' of production processes and the flexibilization of the old corporatist labour legislation, in the import-substitution sector;
- ▶ all of this in the context of a progressive erosion of the legal distinction (from the point of view of customs) between production for re-export and production for the domestic market.

Mexico was, therefore, resolutely engaged in an 'Indian' (see Section II) transformation:

- ▶ general flexibilization of the wage relation for the established 'worker aristocracy' in the state enterprise sector, accompanied by a rationalization of the organization of labour;
- ▶ a very rapid exodus from the countryside accelerated by the freeing of the *ejido* market, which provoked on the one hand an urban explosion organizing itself around the informal economy, and on the other hand a superabundant supply of labour for primitive Taylorism.

3 Mexico and the USA: rivalry or hierarchy?

Certainly the USA, Canada and Mexico have very different levels of productivity. The USA has the monopoly of technical knowledge in the high technology sectors. But these three countries appear, when taken together, to be engaged in modern forms of the same Fordist technological paradigm: Taylorism plus automation. That which is different is essentially the wage relation and its most basic parameter, the hourly wage rate. One can, therefore, expect to find a 'vertical' division of labour in the circuits of Fordist sectors between the USA and Canada along the lines of *the second international division of labour*.

This is effectively what is happening, but the consequences for the USA are far from being wholly positive, taking into account the 'globally decentred' position of US industry. On the one hand, more and more *maquiladoras* work for European or Asian firms which use them to penetrate the market covered by NAFTA. Even those *maquiladoras* integrated into American networks equip themselves with European or Asian machinery. On the other hand, North American parent plants tend to relocate their entire production to Mexico. And this is the cruellest irony for American industry: having chosen for itself a strategy of low wages and low skill levels, it had no reason to keep on its own territory the heart of its productive apparatus, as was done by Japan and Germany. All US manufacturing is being drawn towards a Mexican workforce which is increasingly using European or Japanese machines.

We come here to the grave consequences of the second characteristic of the North American bloc: instead of its constituent countries being aligned from the centre to the periphery along the diagonal between 'Kalmarism' and 'neo-Taylorism', Canada, the USA and Mexico are aligned on the vertical axis of increasing flexibility, but in a universally Taylorist industrial paradigm. In short, the majority of industrial sectors can only compete by cutting basic wages and worsening conditions for the workforce, the inevitable consequence being, according to these rules of the game, either an ever closer alignment with Mexican conditions, or the moving of plant to Mexico, a process that will

only be checked by the need for proximity in markets organized on a *just-in-time* basis.

This law manifested itself from the signing of the first US-Canada free trade agreement at the beginning of the 1990s. Canada, its 'permeable Fordism' (Jenson, 1989) having largely escaped the Reaganite social deregulation of the 1980s, without having been able to endow itself with a level of skilled labour generally superior to that of the USA, rapidly lost jobs to the profit of its neighbour. [25]

In parallel, changes in Mexico brought that country's industry to a position so competitive in relation to the USA that, from 1992, the negotiation of the Free Trade Agreement, led with beating drums by the liberal administration of George Bush, was put back on the agenda by the USA itself. Large sections of opinion were about to find out that, under the new rules of the game, it is Mexico that has the absolute advantage over the USA for semi-skilled labour in most sectors (Ordóñez, 1994).

The Clinton administration, while less dogmatically liberal, carried on the campaign and, without renouncing the US interest in extending NAFTA to Mexico, demanded and obtained in July 1993 two additional protocols, against social and environmental dumping. This did little to disarm the opposition of the unions and the ecologists in the three countries. That this was not necessarily in Mexico's favour was demonstrated by the crisis of 1994-5, caused as much by mistakes in macroeconomic planning (notably an overvaluation of the peso) as by crises in politics (the convulsions of the old PRI, the corporatist party-state) and above all in society: the zapatista rebellion. Even though so close to the USA, Mexico included such *terme incognitae* from Guerrero State to the Chiapas.

VI THE ADVANTAGES OF AN INFORMAL BLOC: ASIA

The simple definition of an 'Asian bloc' is problematic. There is no transnational structure of economic regulation as there is in the EU or in NAFTA, which delimits the bloc (and neither ASEAN nor APEC plays any evident role of this kind). The Asian bloc (to which is attached Oceania: Australia and New Zealand) results, rather, from a 'virtuous international configuration' (Lipietz, 1985a), which brings together extremely diverse regimes of accumulation. This immense conglomeration displays at the same time the traits of continentalization, as shown by the trade matrix (Table 3) and a hierarchy similar to that of Europe.

Source: CEPIL, CHELEM data bank.

1 A de facto hierarchy

We find again in effect, as much in the per capita GNP as in the index of international value or in single country analysis (Table 4), a 'diagonal' hierarchy, from a central state with negotiated involvement to the more flexible peripheries, across the three international divisions of labour.

At the centre is Japan, the native country of Toyotism. The Asiatic capitalist bloc is not bothered by a social democracy too favourable to workers. But, with the highest wages in the world (in current dollars) in its export sector, Japan realizes enormous trade surpluses, and this despite the world's highest over-valorization of its index of international value.

- In the second circle are two long-standing NICs, Hong Kong and Singapore, which retain the central segments of Fordism, notably in the electronics sector, and organize around themselves sub-contractors in their respective sub-regions (coastal China and south-east Asia: see Chapponniere, 1994; Lemoine et al., 1994).

- ▶ In the third circle, two former European colonies, Australia and New Zealand, have not abandoned the very specific juxtaposition of Fordist regulation and a specialization in primary exports.
- ▶ In the fourth circle is the first generation of Asian NICs having reached the level of peripheral Fordism. and already showing signs of Toyotism: South Korea and Taiwan.
- ▶ In the fifth circle are the primitive Taylorist states exploiting rich *hinterlands*: Malaysia, Thailand and then the Philippines.
- ▶ In the sixth circle are those countries still marked by the old model of export substitution within the first international division of labour, but which seek to get into the second: for instance, Indonesia. [26]
- ▶ Finally, there is the immense ocean of rural Asia with archipelagos of industrialization, particularly in the Indian subcontinent.
- ▶ Of course China, with 20 per cent of the world's population, has its regions stretched out more and more from the second to the seventh circles.

2 The informal dynamic of Asia

Paradoxically, the world's most dynamic region has no evident regime of accumulation. It relies, we insist, on a 'conjunctural configuration'.

At the centre, Japanese Toyotism suffers from a macroeconomic weakness which might have been crippling: there is no strong mechanism for the redistribution of productivity gains (Itoh, 1992). This results from a level of negotiation of the wage level based in the firm: no enterprise can anticipate increases in the wage levels of the others, a general rise in wages does not follow from a general rise in productivity. From this there is a double tendency: a search for external outlets; the locking in of profits and trade surpluses within a speculative bubble fed by overvaluation itself (*endaka*). The *Heisei* expansion and the ensuing crisis (during the 1990s) calls to mind the expansion of the Golden Years of the 1920s at the beginning of Taylorism. The miracle is that it has not resulted in a crisis of overproduction of the order of the 1930s.

This miracle is a product of that which the *endaka* itself obliged and authorized Japan to favour, the establishment of a virtuous hierarchy over the whole of Asia, combining first, second and third international divisions of labour. But this would not have been possible without the economic intelligence of the governmental elite of the first circles of the periphery, in particular the first generation of NICs. Ignoring the recommendations of the World Bank and the International Monetary Fund, these states abandoned neither protectionism nor industrial policy, nor did they lose control. over monetary, wage or trade policies. [27]

Finally, at a continental level, the question of final demand does not present itself, and for two reasons.

- ▶ Asia is supercompetitive on two fronts at once: with the over-involved and expensive labour of Japanese Toyotism, and with the Taylorized and incredibly underpaid labour from the bloody Taylorism of the new waves of NICs. Asia can thus eat away at both European and American markets.
- ▶ Access to the immense pre-capitalist (rural India) or 'socialist' (China and Vietnam) Asiatic mass by the capitalist

market economy creates in itself a formidable demand for extensive accumulation, according to the classical phenomenon analysed by Lenin in *The Development of Capitalism in Russia*.

During the 1990s the growth of the Chinese market has functioned in almost the same way as cold sinks in a thermodynamic system in which Japan is the source of heat, each circle providing capital goods to the inferior circles, and the lower circles providing their nascent but immense domestic markets with consumer goods, or serving markets of the other two blocs.

It is clear that this circuit could only have been initiated because of the *heterogeneity* of Asian technological paradigms and the *absence of regulatory constraints* throughout the entire bloc. China and Japan can coexist without difficulty because they produce different things and in different ways, thus avoiding the same perilous competition as between the USA and Mexico. But none of these countries have given up the tools of external adjustment: neither protectionism nor parity adjustments, avoiding the rigid constraints of either the Single European Act or the Maastricht Treaty. What would have happened if China or Korea were linked to the *endaka* of the yen?

This absence of regulation seems now to act in favour of apparently unlimited expansion. However, the lack of regulation over general demand will eventually have an effect. As was the case for the competitive world economy of the nineteenth century centred on England, Asia is not invulnerable to cyclical recessions. This is not to mention the political tensions that could arise from a rivalry between China and Japan, for example, or from trouble in the *terrae incognitae* from Kashmir and Afghanistan to North Korea.

VIIAN UNEXPECTED CONSEQUENCE: THE HIERARCHY OF RESISTANCE TO THE GREENHOUSE EFFECT

The new global hierarchy founded on the divergence of technological paradigms is reflected in all areas of international relations, across very complex mediations which can diffract them into paradoxical configurations, such as those of the Second Gulf War (Lipietz, 1992). By way of conclusion we will demonstrate how it can shed light on the diplomatic game surrounding the struggle against the greenhouse effect (Lipietz, 1995b).

Briefly stated, the greenhouse effect, caused by human-made carbon dioxide, originates principally in the industrially developed world and its victims are located principally in the least developed areas of the world - Bangladesh, for example. Logically, the conflict should be between the north, inclined to do nothing, and the south, inclined towards precautionary measures. In fact only the USA on the one hand and Bangladesh on the other conform well to this bald analysis. The possible positions in the other combinations are much more fully occupied. We find that:

- ▶ there are developed countries urging resolute action: for example, Germany and, somewhat more quietly, Japan;
- ▶ there are developing countries that are opposed to any constraining regulation: for example, Malaysia.

The 'cost of the greenhouse effect' is certainly negligible for the USA and considerable for Bangladesh. But the range of standpoints is better described by reference to the 'cost of the fight against the greenhouse effect', that is to say the constraints imposed by 'additional measures' on different development models, which brings us back to our subject. Examining this sole determinant for the positions taken in climate negotiations, Benhaim *et al.* (1991) analysed one hundred countries, with the data from twenty characteristic indicators, according to their level of development, their conditions of production and their energy consumption. The principal results of the analysis

classified these countries in relation to two main axes ([Figure 5](#)):

- ▶ righttoleft:essentially economic development;
- ▶ bottom to top: the increasing 'cleanliness' with regard to CO2 emissions, principally those countries that release less and less CO2 per unit of production.

We thus have a diagonal, which opposes, in the upper left, the most developed countries which consume the most energy but in the most economic way and with the lowest output of CO2 per unit of production, and, in the bottom right, the poorest countries but those which waste more CO2. One is immediately struck by two facts which link up with the previous analysis:

- ▶ the hierarchy is almost the same on this diagonal as that which results from. the capital-labour relation: Scandinavia, the Alpine arc, Japan, the other European countries and then the NICs and the least developed countries;
- ▶ there is a complete eccentric, a country both rich and 'dirty': the United States. [\[28\]](#)

From this the diplomatic positions taken by the different countries become clear: those states that base their superiority on the involvement of human resources have the means to lower their energy consumption

[Figure 4](#) The hierarchy of resistance to the greenhouse effect

to an 'ecologically sustainable' level and can consider all new legislation as a handicap to their competitors. Those in the contrary position (the USA, because it is already so advanced in a Taylorist development which pays scant regard to the human capacities or natural resources, or the NICs because they dream. of imitating this model) perceive environmental protection as an obstacle to their proper development. [\[29\]](#)

SOME CONCLUSIONS

From this rapid survey we can draw a few lessons.

- ▶ The route towards 'flexibility' which triumphed on both sides of the North Atlantic is neither the only nor the best response (even from the point of view of capital) to, the crisis of Fordism.
- ▶ All countries facing problems of competitiveness thus have a choice of two strategies of adjustment and not just one: a 'defensive' adjustment (by flexibility) or an 'offensive' strategy (based on the negotiated mobilization. of human resources). The latter is the more difficult but in the long run the more rewarding.
- ▶ The offensive strategy is more rewarding not only for capital, but also for labour and potentially for the global ecosystem: three excellent reasons for embracing it.

APPENDIX

The transposed Ricardian theorem

Suppose that in a sector i one could produce, at equal cost, either by 'involving human resources' but with contractual guarantees and for relatively high wages corresponding to a high level of skill, or by Taylorist methods paying sufficiently low wages to the least skilled workforce. Suppose that this trade-off between 'involvement' and 'flexibility' allowed for intermediary situations along a continuous curve and is represented (neoclassically) as a constant price curve for a quantity q_i , similar to classical production curves combining the factors of capital and labour. We keep in [Figure 3](#) (p. 18) the disposition of the axes of 'flexibility/rigidity' and 'Taylorism/negotiation' from [Figures 1](#) and [2](#) (pp. 6 and 8).

In this representation, no single paradigm surpasses the other absolutely. It is possible, at sufficiently low wages, to be as competitive with an organization based on Taylorist labour as an 'Ohnist' organization which requires a more remunerative package for the workers.

To be even more competitive (that is to say to produce a quantity greater than q_i at the same cost), it is necessary either, at the same level of skill and involvement, to find more flexible labour at lower wages, or, at the same wage level, to find more skilled labour with greater involvement. Price curves of growing competitiveness, therefore, are to be found at the origins of the two axes.

But all sectors cannot be as sensitive to flexibility and involvement. For sector i , a highly skilled industry, there must be a considerable drop in wages to balance the weaker mobilization of human resources. For sector j it is the opposite: it consists of a very unskilled industry where involvement is of little importance.

Let us assume two countries, A and B, or two segments of the labour market in the same country (according to a differentiation on grounds of sex or nationality, for example). On our graph, point A surpasses point B for sector j (because $<q_j$) but B surpasses A for sector i (because $>q_i$). Note, however, that point C outperforms A for both sectors. At the same cost, product j is produced on the lower parts of the price curves (with a somewhat Taylorized workforce) and product i is produced in a higher part of its curve (with a workforce that negotiates its involvement). This one can call the 'transposed Ricardian theorem'.

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[1] Certain parts of the first section have already been published (Lipietz, 1993). On the geostrategic consequences of the new world order, I have also published some thoughts (Lipietz, 1992: Annex).

[2] The following sub-section is a résumé of Glyn et al. (1988) and Lipietz (1985a).

[3] See Doeringer and Piore (1971).

[4] The problem of equating geographical area with social paradigms is one of the most difficult and the least explored (see, however, Lipietz, 1985b).

[5] NB Toyotism is not Ohnism. It combines Ohnism as an industrial paradigm and a particular mode of labour relations.

[6] According to the theoretical interpretations of 'real socialism' as 'state capitalism' or 'bureaucratic socialism', one might or might not characterize the 1 managerial class' as 'bourgeois'. But the working class is always constituted by wage earners.

[7] CEPAL is the Spanish acronym for the Economic Commission for Latin America (of the United Nations) (ECLA).

[8] See, however, Lipietz (1991)

[9] There are obstacles to the 'mobility of labour' from immigration, but they originate in countries with an excess labour force.

[10] Certain parts of the first section have already been published (Lipietz, 1993). On the geostrategic consequences of the new world order, I have also published some thoughts (Lipietz, 1992: Annex).

[11] The following sub-section is a résumé of Glyn et al. (1988) and Lipietz (1985a).

[12] Sections 1.2 and II are derived from collective research organized under the auspices of the World Institute for Development Economic Research (cited in the bibliography as Schor and You (1995), WIDER), of which I wrote the concluding chapter (Lipietz, 1991). See also Boyer (1993). See Doeringer and Piore (1971).

[13] It is also necessary that this Taylorizable workforce finds itself faced with an elite of entrepreneurs and functionaries inclined to put a model of this type in place - something that is far from generally the case. For all these conditions, see Lipietz (1985a).

[14] One can say that a currency is 'over-valued' when the exchange rate in force seems to demand too much international labour in exchange for national labour. I talk here of a currency (and the labour it represents) that is 'over-valorized' when it effectively allows the purchase of more international labour against less national labour.

[15] Here I have grouped all countries into three blocs, leaving a section for the 'Rest of the world' comprising Africa and the Arab world (essentially engaged in the first division of labour) and Eastern Europe (in chaotic transition in 1992). One sees, however, that the 'Rest of the world' is in fact the periphery of Europe.

[16] In that which follows, which originated in an early version in Leborgne and Lipietz (1990), 'Western Europe' refers to the European Community (or Union) in the strict sense, comprising the countries of the EU itself and those countries of the European Free Trade Association (EFTA) which are in the process of joining the European Union.

[17] The year 1993 was marked, simultaneously, by the achievement of the 'Single Market' and the destruction of the system of monetary convergence in defiance of the Maastricht Treaty.

[18] Where per capita Gross Domestic Product in international values is the third highest in the world after Japan and Switzerland.

[19] There now exists a large literature analysing the evolution of the capital-labour relation in the south without reducing it to a mythic and all-purpose 'flexible specialization'. See- for example, for Brazil, Zawislak (1994) and for a comparison of Mexico and Korea, Valencia (1995).

[20] See Lipietz (1995a)

[21] The same conclusion has been reached regarding the electronics maquiladoras by Lara Enriquez (1992) and the Japanese-owned maquiladoras by Taddei Bringas (1992).

[22] From a huge literature we note: Carillo (1989, 1990); Gutierrez Garza (1985); de la Garza Toledo (1992a and 1992b); Arteaga (1992); Bensusan Areous (1992).

[23] While visiting an electronics maquiladora at Nogales, the sociologist Lilia Orantes brought to my attention that, in the canteen toilets, there was a sign asking, 'Please wash your hands after (and not before) your meal'. The Fordist 'moralization' sought to protect the production process from the supposed dirtiness of the worker and not the other way round.

[24] This is not to mention the extractive sectors (oil in the Gulf regions) or the rural or indigenous regions, whose destiny was to be particularly upset by the imposition of the North American Free Trade Agreement.

[25] Mahon (1994) shows, however, the opportunities that were opened up for the 'upwards' adaptation of Canada. Lapointe (1992) gives the example of the aluminium industry. But Toyotism was, for a long time, the general line of evolution for process industries, even in the case of the cement works of the Yaqui in northern Mexico.

[26] The difference between the NICs of the second, fifth and sixth circles is exposed in Table 4

[27] See the remarkable comparison between Mexico and Korea in Valencia (1995).

[28] One also notes an astonishingly 'virtuous' country: France. This is because its 'CO2 virtue' has been bought with nuclear power.

[29] For the Korean case see You (1995).