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GLOBALIZATION IN SEARCH OF A FUTURE[i]

The contemporary challenge to national policies

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GLOBALIZATION IN SEARCH OF A FUTURE

Abstract

The globalisation process, formerly dominated by international trade and investment, is largely borne today by the reduction in the costs of information and communication processing, which altogether with the accumulation of knowledge and experience, deeply transforms the context for international transactions. This fast-paced global restructuring process raises some fundamental policy challenges. At the national level, it has made policy makers much more aware of the increased international implications of their policy actions. Policies that might appear "sustainable" within a national context may appear less so in an international one. On the other hand nation states remain the only actors that can help forge the new policy compromises that are needed. This holds not only for traditional macro-economic policy, but also for social, fiscal policy, social security and other policies traditionally pursued at the national level. More than ever, the traditional national toolbox of policy instruments appears to be in need of some international counterpart.

UNE MONDIALISATION A LA RECHERCHE D'AVENIR

Résumé

Le processus de mondialisation, largement impulsé dans le passé par la croissance des échanges commerciaux et des flux d'investissement direct est aujourd'hui essentiellement porté par la réduction des coûts de traitement et de d'acheminement de l'information et des communications. Ceci, avec l'accumulation d'expériences et de connaissances, transforme fortement le contexte des relations internationales. Cette restructuration à l'échelle globale met au défi les politiques nationales. Cela a rendu les décideurs politiques beaucoup plus conscients des implications de leurs actions. Des politiques qui pouvaient paraître soutenables au plan national, semblent beaucoup moins soutenables au niveau international. Néanmoins les Etats-Nations restent les seuls acteurs à même de construire les nouveaux compromis politiques dont l'économie mondiale a besoin. Ceci vaut non seulement pour les politiques macro-économiques habituelles mais aussi pour les politiques sociales, fiscales et toutes les autres politiques habituellement menées au niveau national. Plus que jamais la boîte à outils de politique économique a besoin d'être étendu à l'échelle internationale.

KEYWORDS : Globalization, trade and foreign direct investment, industrial policy, international transactions.

MOTS CLES : mondialisation, commerce et investissement direct, politique industrielle, transactions internationales.

JEL CLASSIFICATION : F01 - F43 - H11 - I50

GLOBALIZATION IN SEARCH OF A FUTURE :

The contemporary challenge to national policies

Introduction

The last ten years have been characterised as a period of historic structural transformation at the world level. We have witnessed the collapse of the former communist countries and their rapid opening up to market-led economic incentives; the liberalisation of financial capital markets and last but not least the dramatic reduction in the costs of information and communication processing, opening up an increasing number of sectors to international trade and restructuring.

This fast-paced global process involves some regions or areas more than others. It also raises some fundamental policy challenges. At the national level, it has made policy makers more aware of the increased international implications of their policy actions. Policies that might appear "sustainable" within a national context may increasingly appear less so in an international context. At the global level, there is concern about the lack of global policies that are increasingly warranted in some areas - including environmental issues such as climate change, financial volatility and technological development. There is also some concern about the undemocratic nature of some of the current - global level playing field" rules governing the international exchange of goods, services, finance and many other forms of intangibles - intellectual property, copyrights, trademarks, etc. While the impact of opening up to global international restructuring may still be in its infancy, with full take off likely only in the next Century, globalization has brought to the forefront the extent to which degrees of freedom of national policy actions have shrunk in a wide variety of different fields. This holds not only for traditional macro-economic policy, but increasingly also for social, fiscal, social security and other policies traditionally pursued at the national level.

In the first section of this article some of the main features of globalisation are discussed in terms of trade and investments. Despite the new features of these international transactions the real mark of a new phase of globalisation is linked to intangible transactions, the expansion of which contributes to what we define as the third dimension of globalisation. Some of the parameters of this transformation are surveyed in the second section and the role played by the new information and communication technologies (ICTs) is exposed as its central "engine". From this perspective, it represents the first - global" technological transformation that our societies have been confronted with (OECD 1996a).

The new economic geography changes the relationship between the local and the global, as we stress in the third section. But this assessment of 'glocalisation' does not lead to the conclusion that all local regions with adequate competencies are in a position to be uniformly competitive. Rents deriving from innovation have in most cases been preserved and strong oligopolistic structures still prevail at a worldwide level. This further complicates the role of nation states that have experienced the blockage of their old policy means, and have hoped to control local or regional developments.

More than ever they are forced to comply with multinational conglomerates. But as we discuss in the fourth section, nation states remain the only actors that can help to forge the new compromises that are needed at the international level.

There is little doubt that solutions to our current and future global economic, social and environmental problems will have to be found in more efficient uses of new technologies: in food production and distribution; in environmentally friendly techniques (such as recycling, clean and zero emission standards); in renewable energy; in more efficient and less polluting systems for transporting goods and persons; in health and disease prevention and so forth. The large social returns to public and private investment in such areas go well beyond national borders but only nation states are in a position to organise such international arrangements. Policy makers will increasingly need to co-operate on such issues in the next century. The traditional national toolbox of policy instruments (direct regulation, economic instruments and public procurement) appears to be in need of some international counterpart. As the case of environmental technologies well illustrates, many of the challenges brought about by globalisation raise questions about global democratic control, and even global revenue raising capacity. How to transform the current deregulation trend, inspired by the liberalisation and the opening up of many new sectors to international competition, into a process of more positive integration, undoubtedly represents one of the fundamental challenges.

I Globalisation or regionalisation : a debate over trade and FDI flows

As in many other areas of structural change, there is an ongoing debate on the evidence of globalisation. Most of the readily available evidence, presented in many OECD reports, focuses on trade and foreign direct investment (FDI) flows (OECD, 1993). This data tends to suggest that "globalisation" has barely increased. From a long-term perspective, the ratio of exports or imports to GDP, or even the importance of FDI, is not unprecedented. The period from 1870 to 1913 is often presented as a time of rapid international integration (Bairoch and Kozul-Wright, 1998), with trade flows representing even a higher share of GDP in the UK, the Netherlands and Japan. Others emphasize that FDI flows are mainly intra-regional and that globalisation is a process of regional integration (Hirst and Thompson, 1996). In their view, globalization is effectively a myth when it is viewed as a deterministic process, entirely driven by pure market forces. Laws of competition and dynamics of production processes are rather complex in a world with a greater number of markets and partners, where imperfect competition and bounded rationality remain prevalent features.

From an evolutionist and institutionalist perspective, where agents with bounded rationality and imperfect information operate in a given institutional context, one could conclude that globalisation has reached an unprecedented phase, even if trade flows are not unprecedented and if FDI flows remain centered among developed economies. Since trade and FDI flows now concern many more countries, such as the countries of South East Asia, a new phase in the globalisation process has been reached. Qualitative changes, perhaps more important to consider, have also occurred.

We begin by identifying some characteristics of the structural changes in the flows of trade, investment and finance. From this perspective, we look in section two at the various arrangements and information flows in the economic sphere, which, as intangibles, are more difficult to assess than trade and investment flows. How precisely can we achieve this characterisation ? The basic property involves a much broader range of economic agents interacting faster and executing a wider range of economic transactions than ever before. The global reach of an enlarged number of agents has increased. Accumulation of knowledge and the potential developed in information and communication technologies are at the roots of such capabilities. However, this does not imply that economic agents can now operate rationally and are perfectly informed, on a worldwide scale. On the contrary developments are likely to be asymmetric, discontinuous, path dependent and context specific. What the new logistics offer thus largely remains to be assessed as well as the conditions under which this change can be most effective. The stylized facts, concerning trade and FDI flows, should provide some hints. The following section is devoted to what we call the third dimension of globalisation. It should complete a picture that will certainly require further investigations to assess the implications and choices presented by the process under way.

Changes in the trade structure

Over the last thirty years, trade flows have undergone some structural changes. The share of trade flows relative to GDP increased continuously, although they grew more rapidly during economic upswings (Richardson, 1997). As a result, the share of world trade to GDP was close to 25 per cent in the mid-1990s. The substantive changes that occurred with respect to the nature and direction of these flows may be more telling of a new phase. Four of these are briefly described below.

1 - Within regions, trade flows expanded more rapidly after a number of regional groups were established (such as the EU, ALENA in North America, MERCOSUR in South America ASEAN in South East Asia and APEC in the Pacific Rim). Such arrangements are all very different in nature. In Europe, governments are very active in promoting economic integration while in South East Asian firms shoulder this responsibility. What is common to all such arrangements is that they boost intra-regional trade flows: in South East Asia they grew from one fifth to one third of trade flows between 1983 and 1993, in South America - from one tenth to one fourth. This phenomenon is also apparent in Europe and North America, though less pronounced. In recent years, economic integration seems to have increased at the regional level, regardless of whether the process was initiated by governments or firms.

2-The moderate rise in intra-regional trade flows within Europe and North America was also accompanied by a marked development of intra-trade, e.g. trade within the same product group. By the mid 1990s intra-trade represented between 60 and 70 per cent of trade flows in most EU countries (approximately 80 per cent in the UK and France and 50 per cent in Greece and Portugal, cf. OECD 1996b, table 1.8). There are two types of intra-trade flows: those that result from product

differentiation (a growing international mix of product brands) and those that follow from some quality specialisation among partner countries for the production a given product. The first type of flows stem from the economic integration of developed economies which favours the diffusion of a wider variety of products; one speaks then of “horizontal” differentiation of products. The second type of intra trade flows stem from the trend for economies with different levels of development to take advantage either of lower production costs or of better organisational and innovative capabilities to produce either low price products or high quality products; one speaks then of vertical differentiation of products. This represents nearly 50 per cent of trade amongst Europe's most developed countries. Both types of intra-trade emphasise the strong dynamics of product differentiation and integration. Interestingly enough, the level of intra-trade is rather low in South East Asia.

A significant amount of trade in differentiated products is undertaken between affiliates of the same firm. Depending on the sector, these intra-firm flows can be very high. In the pharmaceutical, computer, semiconductor and motor vehicle sectors they are as high as 70 per cent while in other sectors, such as clothing and steel, they are as low as 7 per cent. The international division of production and distribution (goods may not be processed when traded) is all the more important when the technological level of the product is high.

3- A growing share of trade is in services. In the 1980s and 1990s, international transactions of real services (e.g. incomes from factors excluded)developed more steadily and rapidly than did trade in goods in contrast with what happened in the 1970s. Trade in real services represented about one third of trade in goods in the mid-1990s. Factor incomes expanded rapidly: they represented up to 15 per cent of world exports in 1993 compared to 7.9 per cent in 1975. For real services, business and financial services had the highest growth rates, increasing from 4.8 per cent of world exports in 1981 to 7.5 per cent in 1993.

The area 'specialised business services' is a mix of many types of services. Often these services are listed as miscellaneous services in the balance of payments and are therefore very different from one country to the other. They range from communication services, construction services, computer and information services, insurance and financial services, royalties and license fees to other business services, such as renting, management consulting, marketing and engineering or recreational services. These services are sometimes complementary to other traded goods or may have developed as substitutes, an example being the provision of engineering services instead of equipment goods. These complex services seem to follow a certain “despecialisation” pattern. Countries that rarely use these services (and are large net importers), such as Germany and Japan, have developed their own production capacities and export capabilities. However, countries that have developed expertise and international networks in one of the many specialised trade areas have also been able to maintain this specialisation. The US (software and accounting), the UK (financial services) and France (engineering services) are relevant examples.(cf. Petit 1998). Finally, these

specialised business services constituted a logistics for international transactions in which all countries have to participate and in which some countries can maintain or develop specialisations.

4-The direction of trade flows between regions has also changed in recent years. As previously mentioned, trade flows increased most rapidly in South East Asia - they grew from 6 per cent to 20 per cent of world trade between 1975 and 1995. This growth concerned trade in services as well as trade in goods and occurred in what we refer to as a triadic pattern. The share of South East Asia in US and Japanese trade nearly doubled between 1970 and 1993 (24 per cent of US imports and 35 per cent of Japanese imports). However, imports and exports with the EU were rather balanced (8per cent of European imports in 1993), while they led to a trade deficit with the US and to a net surplus with Japan. In comparison, trade flows between the Triad and the east-European countries remained modest (1per cent of imports or exports of the US and Japan in 1993, 4 per cent with CDE-Europe). This pattern of trade flows within the Triad suggests that Europe, North America and Japan may be affected differently, in terms of their real growth, by the Asian financial crisis. It also indirectly shows that some regions are not taking part in the expansion of trade flows. Another characteristic of international transactions over the 80's is that they occurred when exchange rates fluctuated.

This brief analysis suggests that trade flows developed rather unevenly. In particular, they were concentrated in some regions (Europe, North America and East Asia), and developed highly differentiated product markets and internationalised production processes within some triadic pattern. In the following section we examine the structure of FDI to better understand the dynamics of this trade nexus.

Changes in volume and structure of Foreign Direct Investment

In the mid-1980s, FDI flows suddenly increased. The regionalisation processes at work mainly in Europe and South East Asia largely stimulated this. However, in 1995, after a decade of growth that exceeded growth in trade or domestic investment, total world FDI amounted to only $324 billion. This was a small fraction of world exports ($4808 billion) and domestic investment ($6088 billion). Even the stock of FDI ($2866 billion) remained comparatively small. Clearly these levels were not unprecedented. However, the structure of FDI, in terms of industrial sectors and countries of investment, illustrated the new fabric of international relations.

The 'revival' of FDI in the mid-1980s coincided with a general drive to stimulate regional integration(a process spurred by the volatility of the exchange rates). From the mid-1980s to early 1990s, FDI circulated strongly within the regions of the triad America, Europe and Japan.. After the completion of the common market, FDI flows decreased within EU and non-EU countries (Narula, 1996). An important characteristic of these FDI flows is therefore the rapidity in which they reacted to a change in context.

The direction of FDI, by country and sector, is telling of the firms' restructuring strategies. In many countries, the per cent of foreign enterprises involved in domestic production activities increased in the 1980s and 1990s (as in manufacturing in the US, the UK and Sweden). However, this is not a general feature of the evolution of foreign ownership. In Japan the same figure remained exceptionally low; in France and Germany, it was unchanged from a rather high level of 27 per cent and 23 per cent respectively.

To understand the role of FDI in industrial structures we must examine its allocation. Only a small percentage of FDI (approximately one third) are green field investments; the remainder are mergers and acquisitions. The meaning of foreign ownership, its influence on trade flows, competitiveness and growth in the host or home country, is a heavily debated issue. The sector that acquires the investment is an important indicator of the objectives and eventual impact of FDI. The high-tech sectors, where intra-firm trade is important, are obviously attracting a lot of FDI flows. Over the last two decades, the majority (two-thirds) of FDI has been in services, mostly in the areas of distribution, finance and real estate. This reflects on the one hand the importance of accessing markets and meeting the demand for differentiated products, and on the other hand, the importance of real estate investment and the establishment or acquisition of financial firms.

FDI is thus instrumental in the internationalisation of production and markets and may have a leverage effect that goes beyond what it represents in relation to the overall capital stock. A good example is the finance industry where the globalisation process has reached unprecedented levels.

The special case of finance

The area of finance has always been highly volatile. However, the volume of transactions, fuelled by a large set of instruments and new transaction means, has reached phenomenal levels. The increased "globalisation" of financial flows over the last two decades has been dramatic. In the OECD countries, cross-border trade in bonds and equities increased from 10 per cent of GDP in 1980 to between 150 and 250 per cent of GDP in 1995. At the same time, the worldwide volume of foreign exchange trading has increased to a turnover of more than $1,200 billion per day (cf. Chesnais, (1997)). These financial flows are in no way compensatory of trade or FDI flows. They are the result of new activities in money markets and stock markets in recently deregulated financial centres. This realm of finance, where huge sums can be transferred instantaneously around the world, has become very risky. The speculative bubble can blow up. The rush against some currencies, suddenly perceived as weak, can be dramatic.

After each "local" alert the international financial community tends to develop its own prudential rules to avoid a major systemic crisis. Whether or not the international financial regime can prevent major chaos remains an open question. The problem is too broad for existing international institutions, such as the IMF, while individual countries seem too divided on control issues[1] to address such a global question.

Global finance, though developed, also features an interesting trait: traditional financial areas such as London and New York continue to dominate. Despite the existence of new means of transacting, other financial areas have remained secondary with the notable exception of Tokyo. Markets in

Frankfurt and Paris have had difficulties in remaining competitive (even when, new opportunities arise, such as the EMU). As for the emerging markets in South East Asia, the financial crisis initiated in the summer of 1997 reveal their intrinsic weaknesses. Indeed the large development of the financial transactions led to the emergence of new locations and to the development of mid-ranking locations, but overall the old hierarchy between financial places has been more consolidated than eroded in the last decade. This “agglomeration” effect is also telling of the tacit knowledge which, among other local conditions, is required for firms to be successful at a worldwide level.

The structure of trade and FDI flows has changed significantly over the last two decades. These changes may seem patchy and sector specific, showing that globalisation has been somewhat haphazard. They hint at some important traits of what could be a new stage in the globalisation process.

II The 'third dimension' of the globalisation process

What we have termed the “third dimension” of the globalisation process refers to the internationalisation of information and knowledge. Being intangible these transactions either do not show up in the balance of payments or do so only partially in some service transactions.[2] These international intangible exchanges may play a great role in stimulating trade and FDI flows. The use of ICTs is critical to this 'third dimension'.

We examine this dimension along four lines of development: the deregulation of trade and investment flows and the many intermediate services which are central to the organisation of markets and transactions ; the formalised (and publicly announced) international co-operation and agreements between firms; the free exchange of information and the advancement of international relations and business, mainly through the activities of internationalised business services but also through personal contact and cultural links.

The move towards deregulation gained momentum in the late 1970s as stringent regulatory frameworks set up for most intermediary services (banking, transport, communication) in the late 1930s and in the post war period slowly but surely began to unravel. The trend to liberalise trade and investment started much earlier - it dates back to the post war period, when some large international institutions such as the GATT, the IMF and the OECD were created to promote free trade and investment. This trend gained new momentum over the last two decades as regional agreements flourished and developing countries liberalised their economies.

The deregulation of intermediate services had a clear impact on international restructuring. Deregulation is largely a consequence of the diffusion of new ICTs, which, in easing international access and provision, helped firms to bypass the limitations set by the old national regulatory frameworks. At the national level, deregulation has also been promoted and co-ordinated within regional agreements. The privatisation that often followed deregulation opened the doors to foreign multinational firms but also strongly induced the old monopolies to develop some global reach (in

particular, by taking advantage of newly opened markets in developing countries). This led, in some cases at least, to the creation of large international conglomerates or networks of allied multinational firms. A clear example is the telecommunications industry, with British, French and Deutsche Telecoms as major protagonists world wide, and the recent deregulation of the telecommunication sector. But large alliances of multinational firms have also recently developed in banking, insurance and transport. This does not imply that the phase of liberalisation is completed or over. In some developing countries the process is only starting; its pace, in terms of external relations or domestic activities, depends on the outcomes of its policies, and on the economic success and financial difficulties of countries. Furthermore in advanced economies invisible barriers to trade may be all the more lasting as product markets have become more complex and more differentiated. Some also argue that the liberalisation of trade and investment around the world owes much of its dynamics in the past decades to regional agreements that will lock-in the process of liberalisation.

This conflict between "regionalisation" and "globalisation" is either praised or blamed in promoting or hampering what many authors view as the final stage of the globalisation process (Lloyd, 1992).

At its present stage the liberalisation process thus appears fragmented according to the region and the level of development of countries. Other dividing lines seem to depend on the sector. Regimes are specific for finance, insurance or cultural goods for instance. As suggested by the OECD, the fierce discussions surrounding the MIA project to complete the liberalisation of investment, help to illustrate the conflicts yet to come. Intangibles, such as intellectual property rights, cultural services and technology transfer, are heavily disputed.

Co-operation between firms at the international level increased in the last fifteen years (60 per cent of inter-firm technical agreements are international). Co-operation concerns all industries even if they are mostly concentrated in the high-tech sectors. This is an important change since these accords are public and publicised[3]. They structure the development of key innovative industries (here ICTs and pharmaceuticals) at international levels (going quite often beyond the regional level).These agreements have different objectives:production,R&D or marketing[4]. Sometimes firms collaborate in order to share high investment costs, or to avoid destructive competition; often they try to preserve some flexibility in their capacity in order to adjust to external changes. Some alliances may appear contradictory, implying that they may be short in their duration. These agreements may last for different time spans. Co-operation amongst firms can take various legal and contractual forms (i.e. joint ventures, verbal agreements to share information, etc.), including arrangements between small firms and large firms as in the case of franchising. If one considers these diverse forms, then co-operation has grown more at the international level than at the domestic level over the past two decades. This is because international firms attempted to address the problems of producing abroad or accessing new markets.

This process of co-operation is creating complex overlapping networks that shape global markets and internationalised production processes (see OECD 1992, chapter 10). Some of these networks may be regional, as in the case of Europe. Most of such accords and alliances, however, are

transcontinental and comprise, in various combinations, firms from the Triad. For many of these firms such alliances lead to inward FDI. Again it shows a meaningful level of global operations and strategies without implying that all international agreements between firms are global in their scope. A number of questions arise in relation to co-operation amongst firms: Is there room for the development of such agreements ? How do they impinge on the dynamics of production processes and markets ? How do they relate to trade and FDI flows ? Although these arrangements amongst firms are important - and being public, are also signals to the financial world, to competitors and to governments - our understanding of them is rather weak.

The diffusion of information and knowledge through academic activities (scientific meetings, publications, etc.) and the media (the press, general or specialised, as well as TV, radio and the like) also contributes to this third dimension of globalisation. Universities and public research centres are a pre-eminent vector in the globalisation of innovation (cf. the taxonomy of Archibugi, Michie, 1995) Indicators, although scarce[5], show a rise in international co-operation between academics and other public researchers. In 1994, 25 per cent of US and Japanese scientific papers were 'internationally co-authored' while in Europe 50 per cent were. In the same year, approximately 24 per cent of US postgraduate students were foreign (see Archibugi, Michie, 1997). The media is also an important international vector of information and knowledge, not only through TV, but also through the technical press and international profession events, such as seminars. The convergence between computing and telecommunication technologies has broadened the scope for such international interactions among academics and professionals. The potential of the new ICTs has become a key element in the diffusion of information and knowledge. The Internet, in this respect, represents the latest stage in this dissemination process. It also illustrates the globalisation process, as the diffusion of internet develops in strong correlation with the levels of development but also leaves some countries lagging behind or forging ahead.

For the most part, information and knowledge are freely accessible.[6] Why is something that is costly to produce freely disseminated worldwide ? This occurs for a number of reasons. Traditions in academic spheres call for the publication and discussion of information within the scientific community. This is increasingly true as borders disappear through the use of English as a common language. Dissemination can also help to set standards, whether in science or in industry (i.e. to set the norms of the new ICTs). Free dissemination also favours co-operation, not only around norms but also around projects, therefore avoiding duplications or incompatible varieties of new products. It may be intended for a small community of firms or professionals but at the cost of free riding by others, if they have the relevant knowledge that makes this information valuable. There is also the idea of reciprocity in a highly innovative world: diffusing information may help the innovator to stay abreast of the next wave of innovations.

Whatever the reason, a mass of information has been made available throughout the world: it can be both reached and used. The potential to access and use information depends on knowledge, which itself has to be built up. The development of higher education and of public research has helped to strongly reduce barriers. ICTs and regional arrangements have significantly contributed to the

internal dissemination of information and knowledge. The codification of information that ICTs require has certainly facilitated this international dissemination. However, it is not a substitute for the tacit knowledge that is required in modern industries. One may question the extent to which the development of some internationalisation of academic research and specialised media has contributed to the process of globalisation.

A strong argument stressing the limits of globalisation highlights that R&D activities of multinational firms have, for the most part, until the late 1980s, been realised in the multinational's home country (Patel, Pavitt, 1991). First, R&D activities are at the core of the activities identifying a firm. Therefore any externalisation of R&D activities, even partial, any "delocalisation" to affiliates or any collaboration with competitors, is surprising. The level at which one should consider it as a critical change is difficult to assess[7]. Second, the economics of R&D is complex, and often the international relationships viewed above (the nexus of inter-firm agreements on technological issues or the transfers of information and knowledge through the networks of academics, researchers and professionals) are major contributors to this process. Therefore one should be cautious when assessing the impact on national systems of innovations, all the more so as the forms of competition have evolved on highly differentiated markets. Such is the strain put on some systems of innovation that significant forms of internationalisation are taking place in the 1990s. R&D expenditures by foreign affiliates in OECD countries in 1994 ranged from 2 per cent (in Japan) to 68 per cent (in Ireland) of total R&D, with significant figures for the UK (35 per cent), in Germany (17 per cent) and France (15 per cent) (source : Hatzichronoglou, (1998)).

These figures do not imply that R&D is even close to being 'internationalised'. However, a distinct system is emerging with new external links that are country specific (see Patel, Pavitt, (1998), Cantwell and Harding, (1998)). The question is how such a trend develops ? Within industries, will there be hierarchies amongst clubs (or networks) of multinational firms from various countries ? Or will there be means for national systems to adjust to new norms of competition ? Much depends on the abilities of countries to recreate the structural bases of idiosyncratic dynamics.

The role of a comprehensive group of professionals setting the norms of international transactions. This group of professionals work in business and financial services and support the globalisation process. They are not always directly involved in the international transactions that are part of the expanding trade in services. However their work is directly concerned with the organisation and supervision of international operations. The norms, rules and ethics of international transactions are set by their own experiences.

One relevant example concerns the managers of pension funds. The criteria on which they manage their internationalised portfolios are crucial. They may use information and knowledge that academics and the media diffuse, but mainly as inputs to help form their own opinions (which certainly have irrational and speculative aspects). Beyond this highly publicised example one finds a complex set of experts and special authorities, operating in insurance, law, finance and accountancy. To illustrate their hold on businesses world-wide, we recall (following Strange,

(1996)) that the big six accountancy firms (Price Waterhouse, Peat Marwick, McClintock, Coopers & Lybrand, Ernst and Young, Deloitte Touche Tohmatsu, and Arthur Andersen) audit 494 of the Fortune 500 with world wide fees totalling $30 billion (the GDP of Ireland). Their norms, inspired by American practices, tend to be imposed universally, especially through the symbiotic relationships that these accountancy firms have developed with banks and financial institutions. Such networking by international professionals occurs not only in the insurance, law, finance and accountancy industries. It also includes the real estate (a high component of FDI), leisure (from international sport organisations to amusement parks) and cultural industries (with the technological convergence between computer and telecommunications technologies broadening the scope for world wide markets of mass media products).

Before we investigate the implications of the 'third dimension' for nation states, we draw attention to the one key factor that contributed to this change of context, namely the diffusion of the new ICTs. This technological change did not precede the change in the forms of competition, but developed interactively (in some kind of co-evolution).

The Diffusion of ICTs

If the world has entered into something of a new era in which global access has become a major characteristic of both production and consumption, then the cluster of new ICTs has been at the centre of this process. The ability of ICTs to dramatically reduce communication and information handling and processing costs has been critical for the expansion into the third dimension. The trend towards worldwide access is intrinsically linked with the ability of ICTs to codify information and knowledge over both distance and time. It does not follow that ICTs have similar impacts on all sectors or on all countries. In some areas, such as finance which is a major user of ICTs, and where this diffusion has been accompanied by institutional liberalisation and deregulation, the globalisation process has been most rapid. Financial capital, for the most part, is completely mobile on a worldwide scale.

In traditional manufacturing industries, the decline in communication and information costs has further increased the international transparency of markets. Companies are better able to choose production locations and marketing strategies for different markets. ICTs have also accelerated the pace of product innovation. In areas such as services, new ICTs allow for cheap "global" access to low cost labour locations thus facilitating the relocation of various "routine" service functions and activities. ICTs have also allowed for greater product differentiation and for the diffusion of finely discriminating tariffs (open the way to yield management). In the field of intermediary services, ICTs enhanced the trends towards deregulation, deeply transforming these service activities. Firms and organisations have come to discover both the benefits of international differences in labour costs and conversely the advantages of the agglomeration of competencies (Freeman and Soete, 1994).

The benefits of ICTs have not accrued evenly to all countries. ICTs contribute to global economic transparency in so far as they bring to the forefront the cost advantages as well as the specific competencies of alternative locations. But this is not a neutral clarification of pre-existing advantages. ICTs have created a new set of requirements for individuals, organisations and networks. Furthermore, if ICTs have positively affected international access to information and "codified" knowledge (David and Foray, (1995)), which is useful to organise production processes and to access markets on a world-wide basis, their potential is limited by differences in local capacities to use these technologies or to transform "codified" knowledge. In effect the potential for catching-up, in terms of competitiveness, based upon the economic transparency of advantages, strictly depends on some "tacit" knowledge and other competency elements that are difficult to transfer by definition (Foray and Lundvall, (1996), OECD, (1996a)). The threat of rigid or widening segmentation that such process implies is one of the big challenges of this phase of de facto globalisation, largely born by the ability to master ICTs. As the new technologies transform the relation between local levels and world level, we shall investigate some of the changes occurring at the local level of the firm before assessing the potential left to policies of the nation states in the new context.

III "Global" Firms and Local Development : reshaping the economic fabric of the nation state

The pressure for structural change, as described above, has affected globalisation. Globalisation is no longer simply a question of "globalising" sales with its accompanying services such as marketing, distribution and after-sales service. It involves to a greater extent production, including production of component suppliers; investment, including intangible investment; mergers and acquisitions ; partnerships; so-called "strategic" alliances; etc.

As discussed in many recent contributions to the international business literature, firms are increasingly directed towards global presence strategies. Such strategies find a balance between reaping some of the scale advantages of global markets increasingly associated with intangibles (research, communication, marketing, logistics, and management), while also exploiting the often geographically determined diversity of consumers and production factors. The large multinational firm's organisational and production technology will give it the necessary flexibility to confront this diversity.

The de "centralisation of firms" production units and even new product development, together with a diversification of sub-contractors, will enable them to take full advantage of this diversity. This explains the apparent contradictory "globalisation" trend, based on physical presence under what appears sometimes rather "autarchic" production conditions in the various large trade blocks (EU, NAFTA, ASEAN, China) with often highly differentiated "local" products. This trend contributes to increasing some global exchange of the core technological competencies of the firm, including the establishment of alliances, networking with other firms and other forms of international exchange of relevant information.

The actual location of a given firm's plant will depend heavily on local environment factors. The location choice will often depend on the availability of local skills, infrastructure and access to knowledge. At the same time, the firm itself will contribute to the long-term growth and availability of human resources, access to knowledge, local suppliers' know-how and networks. These often scarce and sometimes geographically "fixed" factors contribute to the increasing return growth features of long term development.

These apparently opposing trends raise a number of important policy issues ; one is the level at which policy should be implemented to be the most effective. It is obvious that global or multi-domestic firms increasingly question the meaning of many national policies. In some cases such firms behave as better corporate "citizens" than national firms do, in other cases they apparently do not. It is difficult, if not impossible, for governments to create boundaries here: the current OECD guidelines with respect to FDI provide little more than a voluntary "standard" of good international behaviour.

At the same time, and perhaps paradoxically, the multi-domestic firm also questions the relevance of national policy making from a regional and local perspective. As indicated above, multi-domestic firms will take advantage and contribute to the emergence of locational infrastructural advantage. Of particular importance in this context is the infrastructure linked to the innovation system. It is this infrastructure that provides the major incentive for private investment in intangible resources, including human resources, for linking up with public research institutes (possibly assisting in setting up specialised centres of excellence, training partnerships, technical information agencies, etc.). In other words this process may lead to a local interactive learning cluster or to the establishment, in a particular product or market niche, of a global so-called "competence centre".

The exploitation and contribution by multi-domestic firms to such locally created advantages again raises a number of important policy issues. At the site level this might often translate into rivalries concerning the services offered to firms. he result, as is evident from European experiences, is the establishment of multiple new growth sites, science parks or technopoli. However none of these have developed the necessary size to reach some of the essential externalities and increasing returns growth features, all have increased the cost of communicating and interacting.

The desire of local authorities to attract such high tech learning centres illustrates to some extent the further erosion and relevance of national policy making in this area. The intensification of global competition has increased the importance of regional conditions, including regional policy. Individual citizens are increasingly identifying such local conditions — the quality of the environment and education, the availability of social and cultural services — as the essential features for personal welfare and quality of life. Hence there has been growing political pressure to decentralise policy responsibilities, including financial responsibilities and give more power to local communities (regions, cities, etc.). With the erosion of national government responsibilities, citizens are requesting that a larger percentage of their national tax payments contribute directly to the improvement of their local living conditions. The effectiveness of such policies can then also be assessed in a much more direct and immediate way.

IV The challenge to nation states

In most debates, the globalisation process tends to be associated with the end of the nation state. We believe that a much more balanced view needs to be put forth. Entering a new phase of globalisation certainly transforms and alters the power of the old nation states. An assessment of nation states' policy-making framework is crucial to reconstruct any active structural policy.

During the period of rapid growth of the 50s and 60s in the now developed economies, states and governments were heavily involved in economic activities. As public sectors were enlarged and regulatory frameworks enriched, standard macro economic Keynesian policies, with their monetary and fiscal instruments, played a central role in the monitoring of economies. The new context, providing economic agents more or less directly with some global reach, limited the power and scope of these policies, while favouring public sector deregulation and privatisation. The old tools, which allowed nation states to more or less successfully monitor their economies, have been drastically constrained.

This does not imply that there is no room for manoeuvring. At three different levels we observe grounds for nation states to be effective actors in the future economic growth process. The new challenge to nation states may be to articulate policy actions at each level, which allow them to take mutual and significant advantage of a tamed process of globalisation. We describe these three levels below.

(1) Industrial and structural policies.

Industrial and structural policies, induced by the present phase of the globalisation process, ... The structural changes we focused on above - the development of new forms of competition on products markets and new relationships with multinational firms at local levels, enhanced by the diffusion of new technologies - have enlarged the scope for general economic policies. Industrial and structural policies seemed to be given a new opportunity, all the more welcome as standard macro economic policies had been further constrained in the process. At the same time the balance of power between the local, national and international government has changed. The issue is to reassess the perspective left for nation states to develop comprehensive structural policies, e.g. policies that transform the context in which an economy operates.

In effect, the economic efficiency and competitiveness of a territory greatly depends on the quality and scope of its infrastructure. If a territory's infrastructure is well matched with its geographical, historical and cultural background, then positive external effects are more likely to emerge. This in turn helps to create competitive advantages. The infrastructures under view concerns two main areas: education and training of the labour force and large network services (transport, communications, distribution, finance,..) implied in the functioning of markets and in the running of production processes. A whole body of economic literature on endogenous growth theory points to

the potential importance of such infrastructure effects emphasising national levels of development. Nevertheless, many questions remain: how can specific combinations of these factors increase the positive externalities and at which level (local, national or regional) should they be organised ?

The primacy that nation states have in building up infrastructures will be affected by the new relationship between the local and the global level brought about by structural change and the importance of the regional organisation of nation states. Local authorities will be tempted to favour symbiotic moves adjusting infrastructures closely to local characteristics (searching for new industrial districts or science parks). Regional authorities will favour the increased regional harmonisation of infrastructures. Much depends on the type of infrastructure. In some cases, such as telecommunications, the deregulation and the regional if not global harmonisation of service provision is well advanced. In other cases, such as education and training, monitoring occurs at the national level with more or less autonomy at the local levels.
Nation states have thus a complex role to play. Regarding logistics, which are basically organised under international regulations, they may help to develop schemes "downstream", facilitating specific uses of logistics (aiming at special groups of people or special local regions). As for infrastructures that would be strongly influenced by local needs, nation states may avoid a too stringent specialisation and provide schemes allowing some adjustment, as in the case of education, mobility and retraining.

To conclude, the structural changes over the last decades have brought new opportunities for comprehensive industrial policies but nation states cannot straightforwardly make use of these possibilities. They have to take into account the new balance between government at the local, national, regional and global levels. Nation states are thus led to articulate their actions accordingly. This shift allows them to intervene provided they make an adjustment that attempts to monitor comprehensive learning processes on how to use the new "market" logistics, instead of directly monitoring the provision of these services, as public services used to do. They remain key actors, with their unique legitimacy and historically rooted know how. Nation states can effectively launch such schemes, even if the complexity of this set of policies strongly limits their political appeal.

2) At the heart of international regimes.
Globalisation also proceeds through the re-organisation of certain types of sectoral issues at a world level. The notion of an international regime captures the relative autonomy of such international organisations, which have their own rules, historical experiences and power balances. The most commonly cited example of such an international regime is the oil industry. Nation states use their political power to establish oil rights and the prices of oil exploitation and distribution. The hierarchy of nation states, coupled with the more or less hegemonic power exercised by the United States during various different periods, has contributed to the uniqueness of this global market. Financial markets are another example of an international regime, although the role of the nation

state is completely different in this context. Localising financial market activities around the world, even in “fiscal heaven”, gives the strong impression of a footloose “industry". We have stressed that this is not entirely the case, however, as much financial activity remains in a few historical markets. But even more important is the fact that, one way or the other, nation states are the only actors likely to prevent the system from taking on too much risk and ultimately collapsing. It is not at all certain at this stage that states will be able to co-ordinate their actions and avoid such chaos. Nevertheless, the lesson from the financial crises of the last few decades is that whenever financial turmoil threatens to exceed the capacities of specialised international financial institutions, state interventions have been rapid and forceful - even if they have not always succeeded in putting an end the financial turmoil itself. One of the big paradoxes of the current financial regime is that without this credo — i.e., the willingness of states to bail out bankruptcies - a profound lack of confidence would rapidly bring to an end the expansion of the financial sector. The importance of nation states in the governance structures of such well developed international regimes as those discussed above also draws attention to the notion of intellectual property rights, which play a crucial role in current forms of competition. In effect, these rights condition the existence and duration of nearly all of the rents that accrue to innovation and are thus central to the very dynamics of non-price competitiveness, which has become increasingly important during the last few decades. The fact that the most successful firms of recent decades have been selling intangibles (such as Microsoft) strongly illustrates this strategic importance.

The widespread and hierarchical international organisation of production processes in key high technology industries (such as electronics or pharmaceuticals), as stressed in section 1, is largely based on the nexus of national and international laws, private inter- firm agreements and public co-operation, which together constitute the regime of intellectual property rights[8]. In all of the examples above, the importance of nation states has been clearly demonstrated. However, the power of the individual nation state is constrained by its place in the concert of nations, which is generally governed by a hegemon (usually the US or a club of countries). It is in this context that regionalism may result in the construction of a more or less asymmetric triadic pattern. However, the disconnected nature of international regimes, each of which is concerned with a different activity, limits the degree of co-ordination between issues. Thus Europe, where the regional process is well engaged, has no common energy policy and is more a follower than a leader with regard to property rights or global financial issues. More generally, nation states do not seem to take big initiatives in the running of these regimes, being more inclined to follow in each field the hierarchy of power inherited from the post war period . This brings us to the last field in which the nation state retains its importance - that of innovation.

3*) On the forefront of really global policy issues.*

There are two issues that are, right from the very start, global in nature, and require some explicit international co-ordination that no agents other than nation states can initiate. We have already stressed that globalisation, as a process induced by market forces, is by no means heading towards

some well ordered world with a desirable or acceptable ranking of priorities. Differences in national trajectories tend to make adjustments more costly and erratic than is desired (Boyer Drache, (1996)), whilst the whole market process seems awkwardly short sighted. There are two areas in which these drawbacks are unbearable and should force countries to co-operate — areas in which nation states, given the limited autonomy and capacities of non governmental organisations (NGOs), are the only actors that can initiate and forge the institutions necessary for co-operation. One of these crucial fields is science and technology, the other is the field of environmental problems. One can easily see their complementarity. Once the complexity of science and technology is taken into account in all its dimensions, the advantages of international interaction, networking and the co-ordination of government sponsored basic and long term research (as is taking place in a de facto fashion in the private sector with respect to privately funded research), is an obvious opportunity. When the challenge of environmental problems is involved, this co-operation on matters of basic science becomes imperative.

These 'global' advantages have been most evident in the case of so-called “big science” research efforts, where no single country, nor even a triadic bloc, can provide the full variety of scientific disciplines, approaches and methodologies that are required, much less afford the rapidly increasing equipment and material costs of such research. This raises the question of the responsibility of the richest, most developed countries for bearing the international burden of such “big science” research efforts. There are, in effect, major differences between the OECD countries as regards the share of GDP devoted to basic research.

This global responsibility is even more striking once the “global” demand side and the truly global environmental problems the world is confronted with are introduced into the analysis (not to mention famine, disease, desertification, energy issues, and so forth). Environmentally sustainable development requires a wide range of complementary policies, if only to support investment in the new environmental technologies that are needed. International agreements on environmental regulations, probably the most explicit expression[9] of positive integration, raise formidable policy challenges. No existing international institution can face the challenge of environmental problems of the magnitude that we are alluding to. Most of them have been created with a precise mandate and, strangely enough, their room for manoeuvre and their autonomy seem to have been reduced even as the globalisation process has gathered pace. Only nation states can co-ordinate their actions and set up the relevant institutional bodies, although developing such co-operation is not an easy task.

Given the international character of environmental problems, the goal of environmentally sustainable development is important to all of the different regions and nations of the world. In practice, it requires a widespread diffusion of relevant technologies and supporting institutions. The multinational character of both the problems and their solutions suggests a strong role for new supra-national organisations. At the same time, the localised nature of many of the sources of pollution, and differences in the institutions and solutions that have developed to solve environmental problems, require extensive involvement at the regional, national and local levels.

All of this calls for the creation, through the co-operation of nation states, of a whole new set of institutions, designed to meet the criteria of transparency and non-bureaucracy common in most countries nowadays .

Defining and developing a consensus around specific environmental goals is, however, a thorny problem, particularly when environmental goals require substantial changes to systemic and interrelated technologies. Obvious examples of the need for such multi-faceted change can be found in agriculture (particularly, reduction in the use of intensive methods) and transport (such as reduction in the use of private cars). Major changes of this nature to the techno-economic system cannot be achieved without political debate. How to engage such political debate at the global level, given the many different interests and trade-offs involved, remains largely an open question.

This short discussion of the major global challenges we confront has stressed that nation states will be the principal agents forging the new institutions required to face these challenges. The globalisation process to date has made a significant contribution by creating a new international context and, in many instances, forcing nation states to co-operate. However, the future of globalisation lies in the co-operative actions that nations states initiate in response to its challenges.

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Notes

[1]. Such as temporary exchange rate controls, compulsory deposits in domestic banks as a percentage of incoming funds, small flat rate taxes on international capital flows to reduce their volatility as proposed by Tobin.

[2]. Beyond fees and royalties, many business and personal services imply some transfer of technology, information and knowledge.

[3]. Which allowed their record and the development of an economic literature- see Hagedoorn, 1996 and OECD, 1992(chapters 3 and 10))

[4]. Main purposes of collaboration agreements 1980-1992: production 25 per cent, R&D-31% in development- to marketing 13% or with a mix of objectives 30% (source: OECD 1996b, table 1.17).

[5]Set aside patents that are bought and sold internationally and as such feature in the trade balance of services.

[6]. Regardless of how information is priced, the media (professional journals or general press can provide specific information of high value for those who know how to exploit it.

[7]Phillips, the large dutch multinational, realises 40% of its R&D abroad, which may be considered as high or low accordingly. It should also be taken into account that R&D expenditures mix research and development activities, which can be externalized and internationalized on very different grounds, according to the sector, whether it is pharmaceutical for instance or automobile industry.

[8]The new competition defined as Wintelism by Borrus and Zysman (1997), to reflect the success of the strategies of Intel and Microsoft at setting norms, standards and the pace of technical change in the electronics industry, is obviously strongly conditionned by this regime of intellectual property rights.