Chapter II

GLOBALIZATION AND ECONOMIC CONVERGENCE

A. Introduction

The gap between the richest and the poorest countries in the world is vast. Average per capita income in the richest countries is some 50 times that in the poorest. The persistence of very low standards of living for much of the world's population should be seen as among the most pressing challenges facing policymakers at both the domestic and the international level. Recent trends also suggest that it is not only those developing countries on the lowest rungs which are finding it difficult to raise living standards for the majority of their citizens. With the notable exception of the newly industrializing East Asian economies, growth in most developing countries slowed significantly in the late 1970s or early 1980s, often involving an absolute drop in per capita income. Although some countries have recovered quite strongly since the late 1980s, many have continued to experience slow and fragile growth which has further widened the gap between their average living standards and those of the richest countries.

This picture contrasts with much economic thinking which holds that the economic profile of developing countries in terms of their resource endowments and distance from the technological frontier should give rise to a very fast pace of economic growth and a reduction of income gaps across the world economy. While a variety of explanations have been offered for why economic theory and reality diverged in such a striking way, emphasis has increasingly been placed on the resistance of many developing countries to integration into the global economy. On this view, only a swift and complete removal of restrictions on flows of goods and factors of production across borders can reverse decades of under-performance and close income gaps among countries. This conclusion is often given added weight by reference to the 19th century globalization experience.

This chapter surveys global growth and convergence dynamics. It begins (in section B) by introducing the concepts of "globalization" and "convergence" and considers how globalization can be expected to accelerate growth in developing countries. A brief review of convergence trends before the First World War is then made, followed by a more detailed account of the trends since World War II (sections C and D). In the light of this discussion, sections E and F examine the impact of increased trade and greater capital mobility on growth and convergence, drawing on recent experience. Particular attention is paid to how these international economic forces interact with such traditional elements of economic growth as a fast pace of investment and technological upgrading, and whether globalization has altered fundamentally the issues facing policymakers in developing countries.

B. Globalization and convergence

The concept of globalization refers both to an increasing flow of goods and resources across national borders and to the emergence of a complementary set of organizational structures to manage the expanding network of international economic activity and transactions. Strictly speaking, a *global economy* is one where firms and financial institutions operate transnationally - i.e. beyond the confines of national boundaries. In such a world goods, factors of production and financial assets would be almost perfect substitutes everywhere and it would no longer be possible to consider nation States as distinct economic identities with autonomous decision-making power in the pursuit of national objectives. Those public goods that are needed to maintain an open market system, such as secure property rights and a stable monetary system, would become a global responsibility. Overall economic performance would depend upon the response of firms to global market incentives and the effectiveness of global regulations.

The world economy is far from such a supranational paradigm. A more apt description of the current situation is *global economic interdependence*, where cross-border linkages between markets and among production and financial activities are now so strong that economic developments in any one country are influenced to a significant degree by policies and developments outside its boundaries. Nevertheless, resource endowments, institutional arrangements and policy choices matter very much to national economic performance, as well as to the way international forces influence that performance.

Over the past two decades growing cross-border linkages have exerted powerful influences on the shape of the world economy (table 24). From 1973 to 1994, the volume of world exports grew at an average annual rate of around 4.5 per cent. However, since 1985 the difference between the growth of exports and that of world output has increased significantly. As a consequence, world exports of goods and services in relation to world output rose from 12.1 per cent to 16.7 per cent over this period. Although this increase in aggregate trade flows has been no faster than in the period before 1973, there have been qualitative changes in the pattern of trade which have strengthened global economic integration. These include the rise of manufactured exports from low-wage to high-wage economies and the growth of intra-firm trade accompanying a finer geographical separation of production activities.

Notwithstanding, international trade has not been the main catalyst for accelerating global economic integration. That role has been played by international capital. Cross-border financial flows have risen spectacularly over the past two decades, and the scope and depth of financial integration has far outpaced that in goods markets. The abandonment of fixed exchange rates in the early 1970s opened the flood gates to short-term capital flows; average daily trade in the global foreign exchange market has risen from $15 billion in 1973 to $880 billion in 1992 and over $1,300 billion in 1995. From 1980 to 1993, cross-border sales and purchases of financial assets rose from less than 10 per cent of GDP in the United States, Germany and Japan to 135 per cent, 170 per cent and 80 per cent, respectively. International banking has also, over this period, grown considerably faster than world trade or output. The increase in flows has been accompanied by a series of more qualitative changes, including a shift in the composition of private capital flows from bank lending to equity and portfolio investments, particularly in respect of capital flows to developing countries. Moreover, the holding of foreign securities in the portfolios of institutional investors from the advanced economies has been accompanied by a tremendous pace of financial innovation designed to reduce investors' exposure to credit, liquidity and exchange risks.[1]

Direct investment flows have also made a significant contribution to global economic integration in the sphere of production, and at a pace considerably faster than trade in goods and services. During the 1970s, annual flows of foreign direct

Table 24

INDICATORS OF THE GROWTH OF INTERNATIONAL ECONOMIC ACTIVITY, 1964-1994

(Average annual percentage change)

Period	World export volume	World FDI flows	International bank loans	World real GDP
1964-1973	9.2	..	34.0	4.6
1973-1980	4.6	14.8	26.7	3.6
1980-1985	2.4	4.9	12.0	2.6
1985-1994	6.7	14.3	12.0	3.2

Source: J. Perraton, D. Goldblatt, D. Held and A. McGrew, "The Globalisation of Economic Activity", *New Political Economy*, Vol. 2, No. 2, July 1997.

investment (FDI) averaged $27.5 billion, rising to $50 billion in the first half of the 1980s and $166 billion in the second half. Following a dip in the early 1990s, they reached $318 billion in 1995. There has been a steady shift towards FDI in services, which now accounts for well over half of the total stock of FDI. In addition, there has recently been an increase in the flow to developing countries (accounting for over one third of total inflows in 1993-1996), much of it linked to export-oriented manufacturing. These trends have increasingly been associated with a more elaborate system of intra-firm flows of goods and services as well as inter-firm alliances of various kinds, thereby adding a deeper layer of integration than was previously incorporated in international trade or financial capital flows.

The reach and effects of these cross-border flows have been greatly influenced by the pace at which various legal and political obstacles to trade and factor movements have been removed (openness), the ability of domestic producers to establish a strong position in the international division of labour (competitiveness), and the extent to which rules, institutions and technologies have been standardized internationally (harmonization). Whether greater openness, competitiveness and harmonization will ever lead to a truly global economy in the sense described above is very much open to question. However, there is a growing expectation that they will generate income convergence in the world economy by pushing growth rates in developing countries above those in the advanced countries through a combination of efficiency gains, faster capital accumulation and rising productivity (see box 4).

The contribution of trade to accelerated growth in developing countries should come through the familiar efficiency gains associated with greater uniformity in prices for internationally traded goods as well as more dynamic gains linked to heightened international competitiveness and the advantages of specialization. Moreover, according to traditional trade theory, even in the absence of capital and labour mobility, convergence of factor prices should accompany greater openness; workers of comparable skill will be paid the same in the developed and developing worlds and owners of capital will likewise obtain the same rate of return on their investments.

Capital mobility strengthens considerably the role of international trade in bringing about convergence by linking international economic forces more directly to economic growth. Free capital movements should allow savings to be pooled and allocated globally, improving the international allocation of resources and equalizing rates of return on capital (adjusting, of course, for differences in risk), as capital moves from low-return locations in the North to high-return locations in capital-scarce developing countries. Simultaneously with these gains, capital mobility, particularly in respect of direct investments, should further accelerate

Box 4

MEASURES AND CONCEPTS OF ECONOMIC CONVERGENCE

Economic convergence concerns the gaps in living standards between countries: are they closing or widening, and at what speed? Posing this question immediately raises that of the variable (or variables) that need to be considered. Some studies concentrate on real GDP per head, per worker or per worker-hour, others look at total factor productivity (TFP), while yet others focus on factor prices, such as real wages or rates of return on capital. Each measure provides different information and can behave quite differently over fairly long periods. Consequently, the ranking of countries depends on the particular measure used.

Still, labour productivity remains as good a measure of convergence trends as any other. Productivity not only links the long-run competitiveness of domestic firms and sectors in international markets to rising living standards but also provides a basis for establishing economic leadership among countries. Although productivity and per capita income measures are not identical because of differences in demographic and employment trends, a sustained improvement of incomes is unlikely without an increase in productivity.[1]

It is now customary to distinguish between two types of convergence; *beta* convergence and *sigma* convergence. *Sigma* convergence is concerned with the dispersion around the mean of per capita income, or a related variable in a group of economies, the dispersion typically being measured by the standard deviation or the coefficient of variation. Other measures used include the Gini coefficient, the ratio of the highest to the lowest income or of the average relative to the highest.

Beta convergence is concerned with the relative growth performance of rich and poor countries. Convergence occurs when there is an inverse relationship between the initial value of a given variable (such as per capita income or productivity) and subsequent GDP growth. Thus, if countries with lower initial values of this variable grow faster, they can be said to be catching up with richer countries. However, even if poorer countries grow faster, their absolute income gap with the richer countries can increase for quite sometime, if there is a large initial inequality. Indeed, unless the ratio of growth rates between a poor and rich country equals or is greater than the ratio of their starting incomes, the absolute income gap will first increase, reach a maximum, and subsequently decline.

Two approaches to *beta* convergence are usually distinguished. The traditional approach involves the argument that there is an inherent tendency for the poorer countries to grow faster than the richer ones since, on the conventional analysis of growth economics, greater effort is needed to raise output at higher levels of income.[2] Thus, poor countries should grow faster than wealthy ones as long as their savings rates and technology are identical. Convergence on a common level of income is then only a matter of time.

In the alternative approach ("conditional convergence"), however, poorer countries have the potential to grow faster than advanced countries, but only if they satisfy certain conditions. If these conditions are not satisfied, their growth rate may be below their potential, or even below that of richer countries. Because conditional convergence is closely related to policies needed for catching up, it takes up many of the traditional concerns of development economists.

Early empirical research on differences in long-term growth performance among countries found little support for unconditional convergence. In response, more recent growth models have allowed for conditioning influences and a larger role for economic policy.[3] However, much of this literature has focused on whether developing countries are below their own long-run potential growth rate as determined by labour force growth, savings and technological progress. Because these factors are thought to be beyond the influence of policymakers, the scope to influence convergence is limited to reaching their potential growth rate. As a consequence, it has largely avoided the central question concerning the best policy and institutional arrangements for accelerating economic growth at different levels of development. After a comprehensive survey of this

Box 4 (concluded)

recent literature, one prominent contributor has concluded that "policymakers who want to promote growth would not go far wrong ignoring most of the vast literature reporting growth regressions. Basic theory, shrewd observations, and common sense are surely more reliable guides for policy".[4]

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1 For a discussion of why productivity matters and the different ways of measuring it, see W. Baumol, S. Blackman and E. Wolf, *Productivity and American Leadership: The Long View* (Cambridge, MA: MIT Press, 1989).

2 R. Solow, "A Contribution to the Theory of Economic Growth", *The Quarterly Journal of Economics*, Vol. 70, 1956.

3 See, for example, N. Mankiw, D. Romer and D. Weil, "A contribution to the empirics of economic growth", *The Quarterly Journal of Economics*, Vol.107, 1992; and R. Barro and X. Sala-i-Martin, "Convergence", *Journal of Political Economy*, Vol. 100, 1992. For a general review of these studies, see J. Fagerberg, "Technology and international differences in growth rates", *Journal of Economic Literature*, Vol. XXXII, Sept. 1994.

4 G. Mankiw, "The Growth of Nations", *Brookings Papers on Economic Activity*, *1995* (Washington, D.C., The Brookings Institution, 1995), pp. 307-8.

growth through higher rates of accumulation and the transfer of technology and organizational skills.

In an interdependent world economy the fundamental issue is not whether these global forces bring potential benefits to developing countries, which they clearly can do. Nor is it only a matter of weighing the costs against the benefits from a full and swift subordination of the domestic economy to global market forces. Rather, it is how to best manage the interaction of domestic and international economic forces so that it leads to faster economic growth and rising living standards, particularly in developing countries.

C. Lessons from the 19th century

Assessing the impact of contemporary globalization trends is made difficult by the fact that they have been in operation over relatively few years. Most accounts accept that the mid-1970s mark a turning-point in international economic relations, although a noticeable acceleration in globalization trends only appears from the mid-1980s. However, globalization pressures are not unique to the late 20th century. Indeed, there are enough features in common between the past two decades and the half century before 1913 for some observers to interpret contemporary trends in the world economy as a return to this earlier episode of globalization, following a long interregnum of inward-looking, nationally-oriented development strategies in most developing countries.[2]

Like the current period, the late 19th century was characterized by a steady, but not spectacular, expansion of international trade. According to one recent estimate, the share of exports in world GDP rose from 5 per cent in 1870 to 8.7 per cent in 1913.[3] Also, as in the current period, cross-border capital flows assumed a much more

prominent role in shaping the world economy. By 1913, the annual flow of international capital had reached 5 per cent of the GNP of the capital-exporting countries, notably the United Kingdom but also France and Germany.[4] The typical investment involved government bonds with long maturities, often of many decades, but FDI appears to have accounted for one third of the total stock of overseas investment by 1913.

These expanding trade and capital flows were closely interlinked. The growing demand for food and raw materials in Europe and North America encouraged FDI in primary sector activities; commodity exports accounted for over 60 per cent of world trade at both the beginning and the end of the period, and 55 per cent of the stock of FDI in 1914 was in this sector.[5] Complementary portfolio investment flows financed infrastructure projects, particularly railway construction, in the same primary-exporting countries.[6] In addition, because many of the resource-rich economies were also labour-scarce economies, the emerging growth opportunities attracted large inflows of unskilled workers, particularly from the poorer European fringe.[7]

Expanding cross-border linkages in the 19th century were, in part, driven by and reinforced with the help of new technologies in transport (railways and steamships) and communications (the telegraph and telephone) as well as new organizational arrangements to harmonize standards and reduce cross-border transaction costs. The most significant of these was the gold standard, which was adopted by a number of countries during the 1870s and provided a stable international monetary and payments framework for the growing volume of trade and financial transactions. But other public organizations (such as a rudimentary international patents system[8] and the Universal Postal Union), as well as the emergence of the multinational enterprise[9], were integral features of the globalization process during this period.

In line with much conventional thinking on globalization in the late 20th century, this earlier period has been described as one where international trade and capital flows strongly biased growth in favour of poorer economies, accelerating convergence in living standards in the world economy. At best, this is a very one-sided assessment of the period, concentrating on trends in its most dynamic subregion, where a large part of cross-border flows was concentrated.

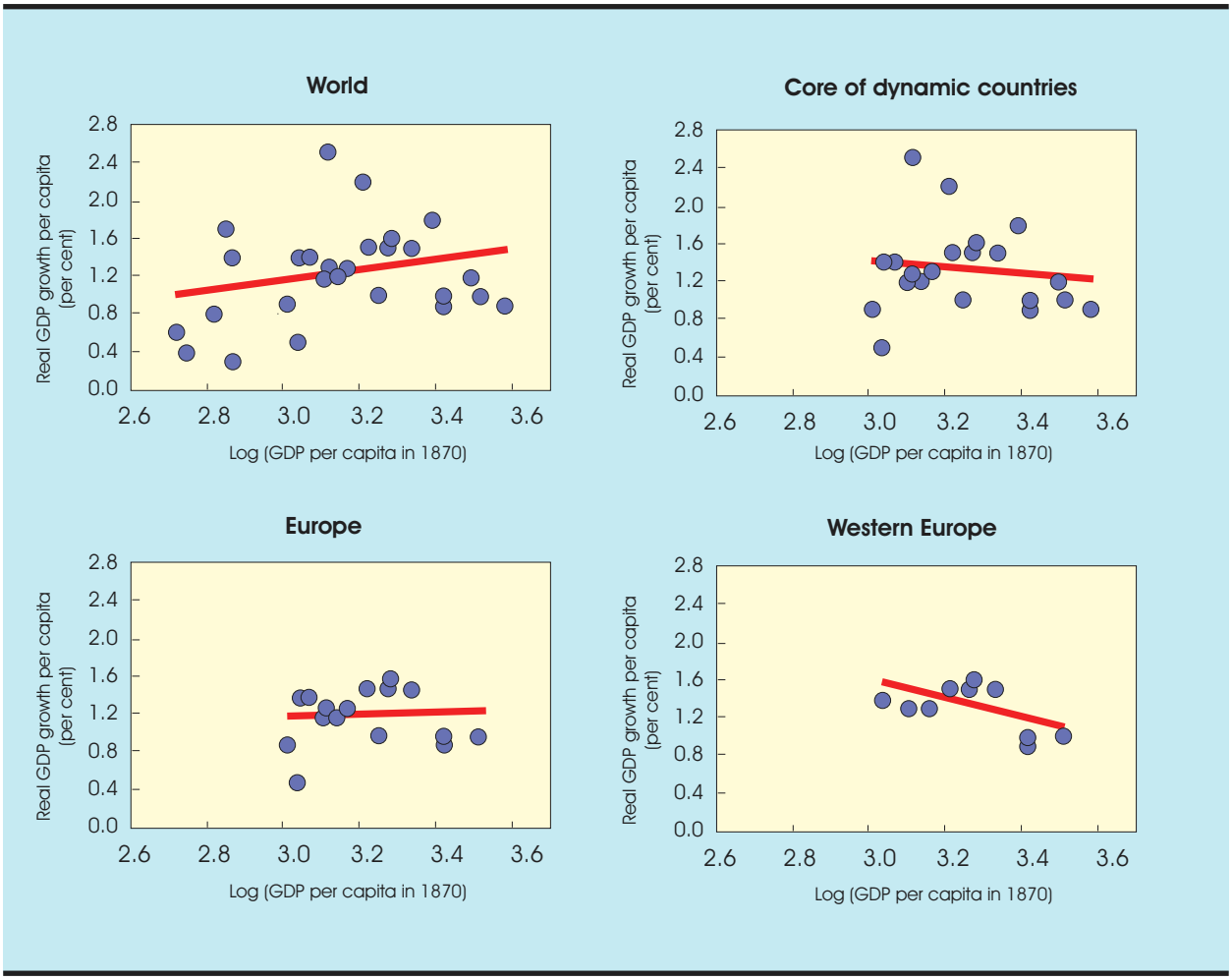
To a very large extent the growing volume of cross-border flows of goods, capital and labour did not bring together a rich North and poor South in a new international division of labour, but rather helped to integrate the emerging industrial economies of Western Europe and North America with a small group of rich primary-producing economies elsewhere in the Americas and in Oceania.[10] To varying degrees this dynamic core also established links with a diverse collection of peripheral countries struggling to modernize their economies. Large parts of the developing world, by contrast, were forcefully integrated into the world economy through colonial ties.

From recently published OECD data it is clear that divergence was the dominant trend for the world economy during the period 1870-1913 (chart 1). A group of core countries did converge during this period, but the pace was slow. Indeed, if the two fastest-growing outliers, Argentina and Canada, are taken out, core convergence switches to divergence. Even in this core, the absolute income gap between the top and the bottom, in terms of per capita income, increased significantly. Moreover, during this period the United States embarked on its own successful industrial take-off which allowed it not only to overtake Great Britain as the world's leading economy but also to forge ahead of even the most successful industrializing economies of Europe (chart 2). A stronger convergence trend did occur in Western Europe, where initial starting conditions were broadly similar and the leading industrial nations were being chased by a larger group of late industrializers, among which the star performers were Germany and some Scandinavian economies.[11] However, even in this case the trend to convergence became strong only after 1900,[12] and if Eastern and Southern European countries are included the trend switches to divergence.

International economic forces were certainly a factor accounting for rapid growth in some of Western Europe's high-performing economies. However, the links between globalization and convergence were neither simple nor direct. According to a recent estimate, European migration accounted for all the real wage convergence, almost three quarters of the GDP per worker convergence, and perhaps one half of the GDP per capita convergence.[13] Among the countries where there was wage convergence only a few achieved a rapid increase in output and productivity growth in the late 19th century. For example, at the beginning of the period 1870-1913 Sweden, Italy and Ireland had

Chart 1

INCOME CONVERGENCE AND DIVERGENCE AMONG COUNTRIES IN 1870-1913



Source: UNCTAD secretariat calculations, based on A.Maddison, *Monitoring the World Economy, 1820-1992* (Paris: OECD, 1995).

Note: Growth rates of GDP per capita are annual averages for the period. The country groupings are as follows: *Western Europe:* Austria, Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Sweden, Switzerland, United Kingdom. *Europe:* Western Europe plus Czechoslovakia, Hungary, Ireland, Portugal, Russia, Spain. *Core of dynamic countries:* Europe plus Argentina, Australia, Canada, New Zealand, United States. *World:* core dynamic countries plus Brazil, China, India, Indonesia, Japan, Mexico.

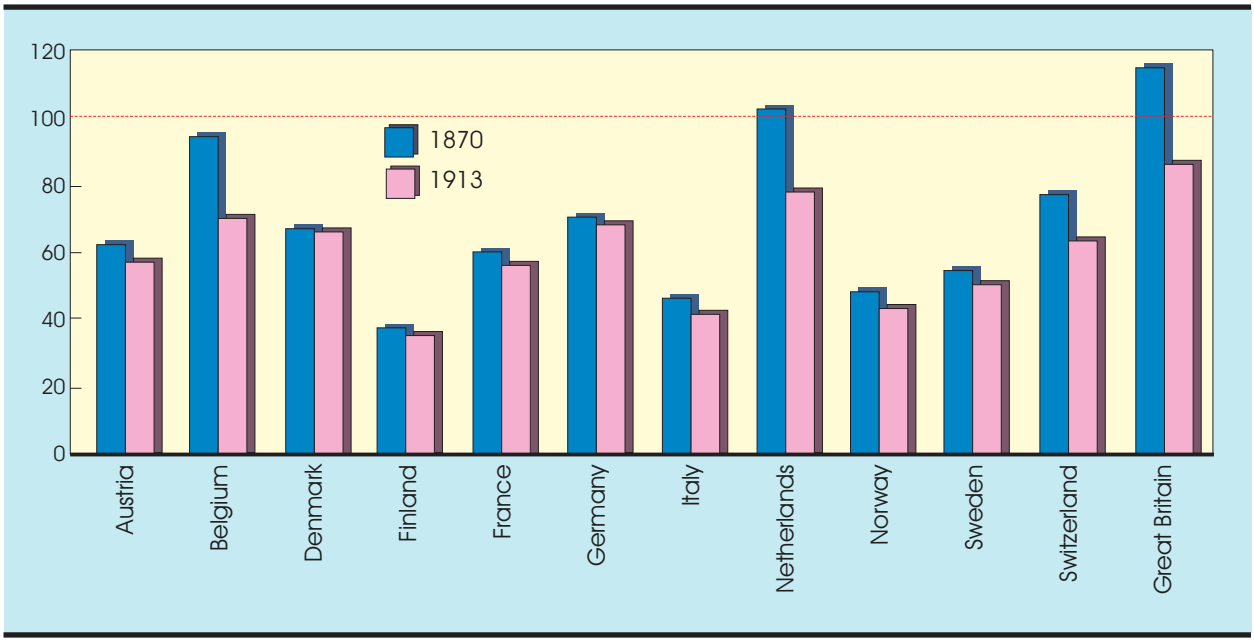
comparable levels of per capita income, and in all three countries real wages had converged towards those of higher-wage economies by the end of the period. However, only Sweden exhibited strong output growth that was accompanied by a genuine process of catching up linked to successful industrial take-off. While international trade and capital movements certainly played a part in this process, they were not the handmaidens of Sweden's industrial growth (see box 5). Indeed, in that country, as in the other most dynamic economies of North America and Europe, industrial output grew faster than trade during this period while the expansion of industry was itself a stimulus to trade through a growing demand for raw materials (see table 25).

The difference between success and failure during this earlier period of globalization rested on a series of domestic institutional reforms, including the strengthening of property rights and commercial laws, improvements to the educational system, the creation of more efficient and nationally integrated markets, and the emergence of new forms of financial intermediation, which helped nurture an industrial entrepreneurial class willing to commit their resources to larger investment

Chart 2

PRODUCTIVITY LEVELS[a] IN WESTERN EUROPEAN COUNTRIES IN 1870 AND 1913 RELATIVE TO THOSE IN THE UNITED STATES

(United States productivity = 100)



Source: UNCTAD secretariat calculations, based on A. Maddison, *Monitoring the World Economy, 1820-1992* (Paris: OECD, 1995).
a GDP per hour worked.

projects and over a longer time span. In most successful late industrializing economies, these institutional reforms were carried out by a modernizing State.[14] However, governments, through guarantees, loans and cash grants, also assumed a more active role in creating new markets and initiating and coordinating large infrastructure projects. Technology and industrial policies were also used to nurture infant industries. In all the successful late industrializers tariff levels on imported manufactures rose - in some cases, such as the United States, from already high levels.[15] But more active industrial policies were also used to support upgrading, particularly in the emerging engineering and chemical industries, including through publicly funded training and industrial research.[16]

Successful industrial take-off at home provided the basis for entry into the international economy in a way which reinforced growth and development. It also helped attract the foreign capital needed to finance growing import requirements and large-scale infrastructure development and to gain access to modern technologies. Furthermore, it made it possible to join and stay on the gold standard, which in turn facilitated capital inflows and raised investment expectations.[17]

Elsewhere in the world economy the impact of international factor flows was very different. In some land-rich economies, mobile factors chased each other into primary sector activities, sometimes generating rather spectacular growth, as in Argentina and Mexico, and also, towards the end of the period, Russia. But in these cases, a class of strong industrial entrepreneurs failed to develop, capital remained quite footloose and speculative investment was widespread. There consequently tended to be a more unstable growth path than in the industrializing economies of the period.[18] Finally, in economies under colonial rule there were limited growth opportunities. In many cases, dependence on raw material exports was associated with enclave economies, often dominated by food products, which constitute the least dynamic and most volatile sector of world trade. At the same time, these economies became markets for manufactures from the industrial core, and although these markets were

Box 5

SWEDEN'S PATH FROM THE PERIPHERY

In the period 1870-1913 Sweden was among the fastest-growing countries in the world, breaking its reliance on traditional commodity exports and rapidly upgrading its industrial capacity. Although Sweden maintained close links with the international economy during this period, its rapid growth cannot be explained as the spontaneous outcome of globalization forces. Rather, institutional reforms, new types of policy intervention and measured integration with the world economy were at the heart of its successful industrialization process.

Sweden's modernization began in the early 19th century with a series of institutional reforms in agriculture, trade liberalization, a tightening of property rights and improvements to its educational system.[1] These marked a break with an earlier mercantile tradition and encouraged a fledgling domestic entrepreneurial class to build on established industrial traditions, such as in iron, as well as to move into new activities such as timber. As late as 1880 iron and timber still accounted for 56 per cent of total exports and 45 per cent of industrial employment. However, new and more sophisticated industries subsequently emerged, including pulp and paper, chemicals and steel, that employed large-scale modern manufacturing methods. Most importantly, a capital goods sector emerged with close links to agriculture and to the timber and metals industries. By 1914 these newer industries accounted for over 60 per cent of total exports.

The share of exports in GDP rose modestly from 18 per cent in 1870 to 22 per cent in 1913, and industrial output grew faster than exports. While export growth was made possible, in part, by the low tariff barriers in leading markets, particularly the United Kingdom, it was rapid productivity growth through the introduction of more capital-intensive production methods that allowed Sweden to enter new markets (Germany and North America).

Efforts to upgrade the industrial base relied heavily on collaboration between the public and private sectors. Typical of such collaboration was infrastructure development, initially in railways, but subsequently in other areas, such as telegraph and telephone services and power supply. In this process, the State sought not only to provide key ingredients for fast growth, but also to facilitate entry of domestic producers into new markets, particularly in the more demanding capital goods sector. Moreover, the need to raise capital abroad was instrumental in deepening Sweden's financial structures and, under close government supervision, establishing closer links between finance and industry along the lines of the German banking system.[2]

Significantly, the effectiveness of the State in this respect was helped by a series of reforms during this period, removing cumbersome procedures and overlapping responsibilities, creating new agencies with better links to emerging industrial activities and introducing new recruitment procedures to ensure a more professional bureaucracy.[3] New types of industrial policy were also introduced. As in most of Western Europe and North America, infant industry protection was an important component of late industrialization in Sweden; although they were not as high as in some other countries, average tariffs on manufactured products rose from around 4 per cent in 1875 to 20 per cent in 1913. These measures were accompanied by various subsidies to support rationalization and the adoption of new technologies, particularly in the newly emerging engineering industries, where R&D was critical to maintaining competitiveness.

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1 The role that education played, however, is controversial; see L. Sandberg, "The case of the impoverished sophisticate: Human capital and Swedish economic growth before World War 1", *Journal of Economic History*, Vol. XXXIX, 1979; K. O'Rourke and J. Williamson, "Around the European periphery 1870-1913: Globalization, schooling and growth", *NBER Working Paper*, No.5392 (Cambridge, MA: National Bureau of Economic Research, 1995).

2 Sweden's long-term borrowing abroad represented about 50 per cent of its gross domestic investment at its peak in the 1880s, much of it for public infrastructure; see M. Panic, *European Monetary Union: Lessons From the Gold Standard* (London: Macmillan, 1992), table 3.2 and 3.3; A. Lindgren, "Long-term contracts in financial markets: Bank-industry connections in Sweden, illustrated by the operations of the Stockholm Enskilda Bank", in M. Aoki *et al. (eds.)*, *The Firm as a Nexus of Treaties* (London: Sage, 1990); and I. Nygren "Transformation of bank structures in the industrial period: The case of Sweden 1820-1913", *Journal of European Economic History*, Vol 12, No. 1, 1983.

3 R. Torstendahl, *Bureaucratization in Northwestern Europe, 1880-1985* (London: Routledge, 1991).

Table 25

GROWTH OF TRADE AND INDUSTRY IN SELECTED COUNTRIES, 1870-1913

(Annual average volume change in per cent)

Country/region	Exports	Manufacturing industry[a]	Per capita GDP
Western Europe	3.2	3.0	1.3
Germany	4.1	4.5	1.6
Sweden	3.1	3.5	1.5
Denmark	3.3	3.4	1.6
Switzerland	3.9	3.1	1.5
Italy	2.2	2.6	1.3
Belgium	4.2	3.2	1.0
Great Britain	2.8	2.0	1.0
Netherlands	2.3	3.0	0.9
United States	4.9	5.7	1.8
Canada	4.1	5.3	2.2
Russia	..	3.0	0.9
Japan	8.5	3.0	1.4

Source: UNCTAD secretariat calculations, based on A. Maddison, *Monitoring the World Economy, 1820-1992* (Paris: OECD, 1995). Output of manufacturing industry is from Paul Bairoch, "International Industrial Levels, 1750-1980", *Journal of European Economic History*, Vol. 11, No. 2, Fall 1982.

a 1860-1913.

small by world standards, imports could prevent the emergence of domestic industries or, worse still, could lead to deindustrialization.[19]

The evidence from the last century does not suggest that global forces will spontaneously create the pattern of differential growth rates needed to achieve income convergence. Rather, the lesson to be derived from the globalization episode before 1913 is that there is still an important role for active government policy if poorer countries are to benefit from international market forces.

D. Contemporary convergence trends

1. Global trends

Since 1950 there has been a steady process of economic integration which has continued even against the growing uncertainties and intermittent crises of the 1970s and 1980s. Indeed, in certain respects, the process of integration has accelerated recently and drawn in many more developing countries and economies in transition. Table 26 provides some broad economic indicators for the leading industrial economies over these four decades. The Bretton Woods era, ending in the early 1970s, achieved an unprecedented degree of growth and

Table 26

INDICATORS OF ECONOMIC PERFORMANCE IN THE G7 COUNTRIES UNDER VARIOUS INTERNATIONAL MONETARY REGIMES

	Gold standard		*Bretton Woods*[a]				*Floating rates*	
	(1881-1913)		(1946-1958)		(1959-1970)		(1974-1989)	
Indicator	*Mean*	*Variation*[b]	*Mean*	*Variation*[b]	*Mean*	*Variation*[b]	*Mean*	*Variation*[b]
Real growth per capita[c]	1.5	2.5	4.3	0.5	4.5	0.4	2.2	1.1
Inflation[c]	1.0	3.4	3.9	1.5	3.9	0.5	7.2	0.5
Real long-term interest rate	3.5	0.7	2.0	2.0	2.7	0.4	2.7	1.6
Change in real exchange rate[d]	0.9	0.9	5.8	1.5	2.0	1.0	8.2	0.8

Source: D. Felix, "Financial globalization versus free trade: The case for the Tobin Tax", *UNCTAD Review*, *1996* (United Nations publication, Sales No. E.97.II.D.2), table 1.

a By December 1958, all European G7 countries had removed all exchange controls on current account transactions.

b Relative dispersal of annual observations around each period's mean value, as measured by the coefficient of variation.

c Average annual percentage change.

d Average year-to-year absolute rate of change.

stability, leading some observers to dub it a "Golden Age". As noted in section B, rapid growth in this period was accompanied by expanding trade and capital flows. Growth was also rapid in many developing countries during the 1960s and 1970s, often accompanied by profound economic, political and social changes associated with increasing industrial activity. However, the benefits were partly offset by relatively fast population growth, especially in Latin America and Africa. This "Golden Age", too, ended abruptly with a "growth meltdown" in many developing countries in the late 1970s and early 1980s.[20]

For this period as a whole, poorer countries grew on average more slowly than richer ones, giving rise to a trend of divergence in the world economy.[21] Taking real per capita GDP growth in OECD countries as a benchmark, over the past four decades strong economic catch-up has been a feature of a small group of newly industrializing economies in Southern Europe. Some developing countries, particularly in East Asia, have also sustained growth rates well in excess of the wealthiest nations (table 27). However, for most other developing countries per capita growth rates have either lagged behind, or been only marginally above, those of the advanced countries. This pattern did not fundamentally change as growth slowed down in the North; since the early 1980s growth also slowed down in much of the developing world, particularly Latin America and Africa.

As a consequence of these trends income gaps have widened. From 1965 to 1995 average per capita income (in terms of purchasing power parity) in Africa fell from 14 per cent of that of the industrialized countries to a mere 7 per cent. In Latin America, while there was little change up to the late 1970s, the gap in income has widened considerably since then, with a dramatic drop from 36 per cent of the level in industrial countries in 1979 to around 25 per cent in 1995. By contrast, the rapid growth of the East Asian NIEs has secured them a per capita income increase from 18 per cent of the industrial countries' level in 1965 to 66 per cent in 1995.[22]

Productivity gaps have followed much the same pattern (see chart 3). Moreover, they appear to be closely linked to widening structural gaps in the world economy. Although the share of the advanced countries in world industrial output fell significantly from 1970 to 1995, while that of the developing countries has risen, the rise in the latter is almost exclusively a reflection of rapid indus-

Table 27

GROWTH IN THE WORLD ECONOMY: CATCHING UP BY DEVELOPING ECONOMIES ON OECD, 1960-1990

GDP growth differential with OECD[a]	*1960-1990*	*1960-1973*	*1973-1990*
More than 3 per cent	Republic of Korea Singapore Hong Kong Taiwan Province of China	Singapore Hong Kong	Hong Kong Indonesia Republic of Korea Singapore Taiwan Province of China
1 - 3 per cent	Botswana Malaysia Thailand	Republic of Korea Taiwan Province of China Botswana Gabon Lesotho Namibia Swaziland Barbados	Botswana Cape Verde Mauritius Seychelles Bangladesh China Malaysia
0 - 1 per cent	Indonesia Barbados Lesotho Morocco Tunisia Seychelles	Nigeria Jordan Malaysia Thailand Brazil Panama	Cameroon Lesotho Morocco Tunisia India Pakistan Syrian Arab Republic Myanmar Barbados
Memo item:			
Annual average growth of real GDP in OECD *(Per cent)*	3.2	4.4	2.2

Source: UNCTAD secretariat calculations, based on the Penn World Tables (see text, note 22).
a Excess of average annual real GDP over the OECD average in percentage points.

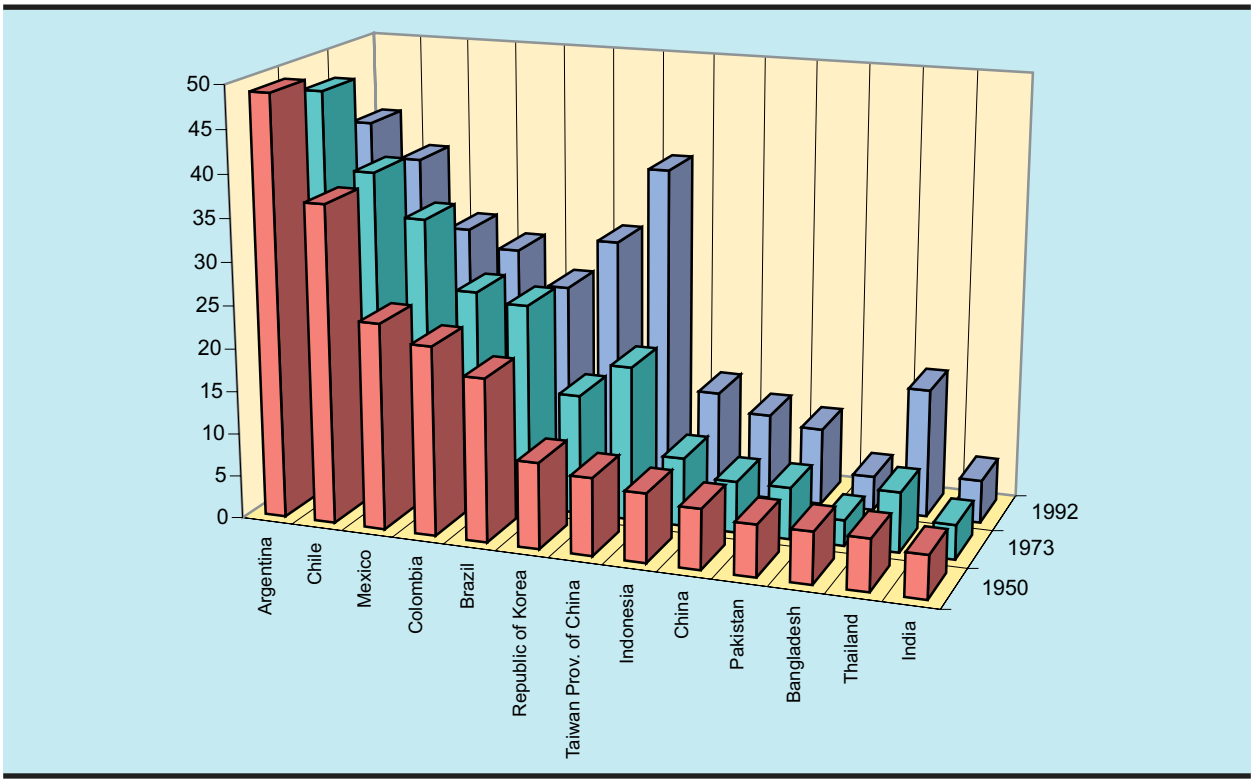
trial growth in East Asia. Particularly since 1980, the share of Latin America and Africa has fallen sharply (table 28). Without entering the long-standing debate on the precise role of industry in development, these trends do suggest a strong association between structural change, productivity growth and living standards.

Differential growth trends have also had a direct influence on the relative position of countries in world income distribution, as can be seen from chart 4 and table 29, which show the trend in world income distribution during 1965-1990, classifying countries into five groups, each representing 20 per cent (a quintile) of world population.[23] Income divergence and increasing inequality in the world's population has been a persistent feature over this period, but with a noticeable worsening in the 1980s (chart 4). The increase in the income share of the richest 20 per cent of the world population

Chart 3

PRODUCTIVITY LEVELS[a] IN SELECTED DEVELOPING COUNTRIES, 1950-1992, RELATIVE TO THOSE IN THE UNITED STATES

(United States productivity = 100)



Source: As for chart 2.
a GDP per hour worked.

was significant; it rose by 14 percentage points from 1965 to 1990, to reach over 83 per cent of world GNP. Much of this increase occurred in the 1980s and was concentrated in the countries with the richest 10 per cent of the world population (as measured by per capita income). The Gini coefficient, commonly used as a measure of inequality (see chapter III, box 6), stood at 0.66 in 1965, rose slightly to 0.68 in 1980 and reached 0.74 in 1990. Perhaps more striking has been the enormous increase in the income gap between the richest and poorest quintiles of world population. In 1965 average GNP per capita in the poorest quintile was $74 and in the highest $2,281, a ratio of 31:1. By 1990 the figures were respectively $283 and $17,056, yielding a ratio of 60:1. There is little evidence to suggest that this tendency towards greater dispersion has since been reversed.[24]

Table 29 shows which countries belong to the different quintiles in world income distribution. While the majority of developing countries remained in the same quintile over the period 1965-1990, the table does show some significant movements. All the first-tier East Asian NIEs have moved into the highest quintile, the most impressive performance having been by the Republic of Korea and Taiwan Province of China, which moved up from the third quintile in 1965.[25] Their fast growth allowed them not only to overtake many developing economies which remained stuck in the second quintile throughout the period, but also to catch up with the advanced industrial economies and even overtake some of them. Moreover, their success meant that some countries in Latin America moved down from the first to the second quintile. Also, a large group of countries moved from the third to the second quintiles during this period, including a number of African middle-income ones, a feature which should not be overlooked in the context of a generally unsatisfactory performance of the region. Indeed, the most impressive leap of

Table 28

SHARE OF DIFFERENT REGIONS IN WORLD MANUFACTURING OUTPUT SINCE 1970

(Percentage)

Country/region	*1970*	*1980*	*1990*	*1995*
Industrialized countries[a]	88.0	82.8	84.2	80.3
Developing countries	12.0	17.2	15.8	19.7
of which:				
Latin America	4.7	6.5	4.6	4.6
North Africa and West Asia	0.9	1.6	1.8	1.9
South Asia	1.2	1.3	1.3	1.5
East Asia[b]	4.2	6.8	7.4	11.1
Sub-Saharan Africa[c]	0.6	0.5	0.3	0.3

Source: UNIDO data base.
a Including the former socialist countries of Eastern Europe and also South Africa.
b Including China.
c Excluding South Africa.

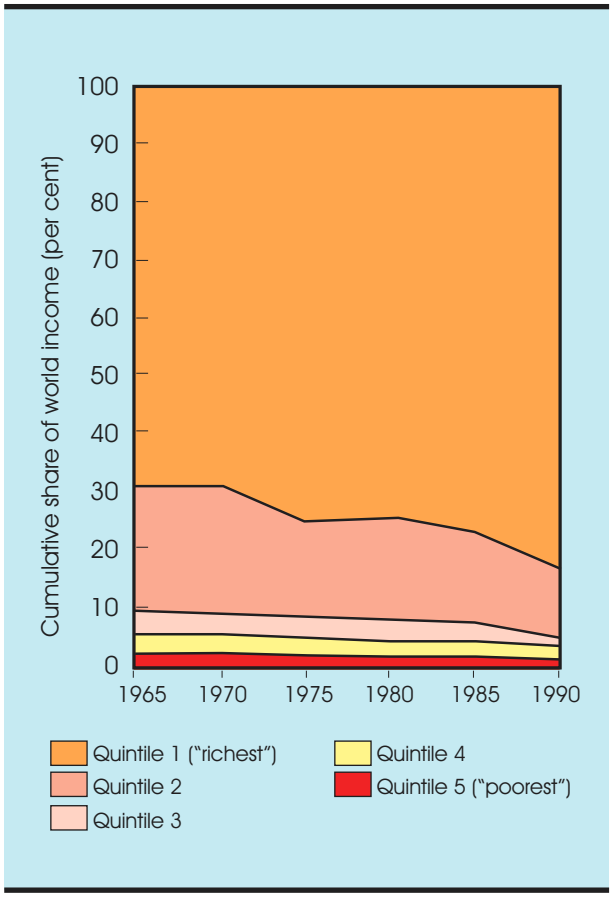
any economy in this period was by Botswana, which moved from the bottom quintile in 1965 to the second quintile in 1990. Many African countries, however, remained in, or dropped down to, the ranks of the poorest countries (bottom quintiles).

The combination of income divergence, the strongly rising share of income going to the top quintile, particularly since 1980, and the fact that average per capita income in that quintile has risen not only relative to the lowest quintile but also to all other quintiles, points to a clustering of countries around higher and lower growth poles. Indeed, on some accounts the landscape of the world economy has already become polarized. Of the 98 developing countries for which data are available, 40 countries had income levels over 20 per cent of the average per capita income of the G7 countries in 1960 and 14 countries over 40 per cent. By 1990, the figures had fallen to 29 and 11, respectively. More generally, failure to catch up in this period is confirmed by the fact that the number of developing countries with per capita incomes over 80 per cent, 60 per cent and 40 per cent of the average per capita income of the G7 countries all decreased between 1960 and 1990.

However, a number of points should be borne in mind when evaluating the increasing dispersion of global income. As already noted, given the large differences among countries at the beginning of the period, absolute gaps could widen even when the poorer countries grew faster than the rich ones. It is also important to note the role that demographic factors can play in the catching-up process. Rapid population growth over the past decades has clearly been important in lowering per capita income growth in many developing countries, even when their aggregate income grew faster than that of the industrial countries. Given the current demographic trends in densely populated countries such as China, India and Indonesia, future trends in glo-

Chart 4

WORLD INCOME DISTRIBUTION, 1965-1990



Source: As for table 29.
Note: The five quintiles each represent 20 per cent of the world population. The country populations included in each quintile are determined by the ranking of countries according to per capita income. The methodology underlying the chart is the same as that for table 29. For further explanations, see that table and the text.

Table 29

POSITION OF COUNTRIES IN WORLD INCOME DISTRIBUTION, 1965 AND 1990

	Quintile 1 1965	Quintile 2 1965	Quintile 3 1965	Quintile 4 1965	Quintile 5 1965
Quint. 1 1990	Australia Austria Bahamas Belgium Canada Denmark Finland France Germany[a] Iceland Israel Italy Kuwait Luxembourg Netherlands N. Zealand Norway Sweden Switzerland UK USA USSR (1)	Barbados Gabon Hong Kong Ireland Japan Libyan Arab Jam. Malta Portugal Puerto Rico Saudi Arab. Seychelles Singapore Spain	Oman Republic of Korea Taiwan Province of China		
Quint. 2 1990	Argentina Venezuela	Belize Brazil(1) Chile Colombia Costa Rica El Salvador Fiji Guatemala Iraq Jamaica Malaysia Mauritius Mexico Panama Peru Poland Romania South Africa Suriname Trinidad & T. Turkey Uruguay USSR (2) Yugoslavia	Algeria Brazil (2) Cameroon Congo C.d'Ivoire Dominica Domin. Rep. Morocco Papua N. G. Paraguay Philippines (1) St. Vincent Swaziland Syrian A. R. Thailand Tunisia		Botswana
Quint. 3 1990			Bolivia China (1) Comoros Egypt Honduras Liberia Mauritania Philippines (2) Senegal Sri Lanka Sudan Togo Zambia Zimbabwe	Central African Republic	Indonesia Haiti Lesotho Myanmar
Quint. 4 1990			Benin Ghana Kenya Pakistan	China (2) India (1)	
Quint. 5 1990		Guyana Nicaragua	Gambia Madagascar Niger Nigeria Dem. Rep. of Congo		Bangladesh Burkina Faso Burundi Chad Ethiopia India (2) Malawi Nepal Rwanda U. Rep. of Tanzania

Source: UNCTAD secretariat calculations, based on R. Korzeniewicz and T. Moran, "World Economic Trends in the Distribution of Income, 1965-1992", *American Journal of Sociology*, Vol. 102, 1997; *World Bank Atlas* tape; World Bank, *World Tables* tape; Penn World Tables (see text, note 22); I. Borenstein, *Comparative GDP Levels*, ECE Economic Studies No. 4 (United Nations publication, Sales No. GV.E.93.0.5), New York, 1993; *Statistical Yearbook of the Republic of China, 1987,* Taipei; Central Bank of China, *Annual Report, 1995,* Taipei; United Nations Population Division database.

a Excluding the eastern Länder.

Note: The table shows the relative position of countries in world income distribution, i.e. to which of the five population quintiles of chart 4 they belong, and changes in their relative position from 1965 to 1990. The table (as well as the chart) was derived by (i) dividing the total population of the countries covered (representing 93.6 per cent of world population) into five groups of equal size (in 1990, for example, each quintile accounts for slightly less than 1 billion people), (ii) ranking countries in the relevant years according to their per capita income in current dollars, and (iii) allocating countries to the different quintiles in the order of their ranking. Countries with the highest per capita incomes are thus allocated to quintile 1 ("the richest") and those with the lowest to quintile 5 ("the poorest"). For some countries, their large population had to be distributed over two quintiles, in line with each quintile's cumulative population total. Such countries are indicated by the suffix (1) or (2). For example, in the case of China in 1965, 25 per cent of the population are included in quintile 3 and 75 per cent in quintile 4. All countries that were in the same quintile in 1965 and 1990 fall into the diagonally placed boxes of the table. For countries below the diagonal the relative position worsened between the two years, and for those above it improved. For example, the position of Argentina worsened (moving from quintile 1 in 1965 to quintile 2 in 1990), whereas Indonesia moved up from quintile 5 to quintile 3.

bal income dispersion could be quite different from those of the past if these countries succeed in maintaining the kind of income growth they have achieved in recent years. Finally, past trends in the distribution of income among countries say very little about the opportunities open to individual countries in terms of rapid growth and catch-up. Indeed, the increase in global dispersion has taken place while a number of poorer countries joined the ranks of the richest countries, in part because they have successfully exploited the opportunities presented by integration with the global economy.

2. Economic convergence in the OECD countries

Over the last four decades, convergence has been confined to a small group of industrialized economies, notably those of OECD. Prior to 1950, the United States outstripped Western Europe, opening up a large productivity and income gap with that region. Much of this gap was closed during the long postwar boom, when the poorer members grew more quickly; from 1950 to 1992, the countries in the bottom half of the list of OECD countries (ranked by per capita income) grew on average 1.4 percentage points faster each year than those in the top half; and, more strikingly, those in the bottom quarter grew 2.4 percentage points faster than those in the top quarter.[26] As a result, the dispersion of income halved; the coefficient of variation of per capita income, which stood at 0.48 in 1950, had fallen to 0.25 by 1992. The trend towards convergence for productivity has been even faster.[27]

The most striking example of rapid catching up in this period is Japan, where per capita income is now similar to that of the United States. In some industries, such as transport equipment and metal products, Japan has already overtaken the United States in terms of labour productivity, although it lags far behind in others, such as clothing.

This experience of OECD countries can provide a useful basis for understanding any wider process of economic convergence. First, it shows that if convergence indeed takes place, it is not an automatic process. Although various studies have traced accelerated productivity growth in OECD countries back to the late 19th century, a particularly fast pace of convergence was achieved only after 1950, when economic growth became a specific target of policymakers.[28] Even so, the absolute income gap increased for a number of countries; over the period 1950-1992, Australia, United Kingdom and New Zealand failed to catch up with the United States (or fell further behind) and in the process were overtaken by other, more rapidly growing, economies such as those of Germany, France, Norway and, most impressively, Japan. On the other hand, extrapolating growth trends over the same period for the poorest OECD members, during which their average per capita income rose from under a quarter to over one half that of the United States, it would still take between 30 and 50 years for those same countries to eliminate the remaining income gap.

Second, while convergence is underpinned by a fast pace of capital accumulation in poorer countries, it is also closely linked to structural shifts in economic activity. In all OECD countries productivity growth in manufacturing has consistently been faster than in agriculture or services. Consequently, in most of the poorer members large movements of labour out of agriculture and into manufacturing have contributed to catching up, even though their productivity gap in manufacturing remained quite high.

Finally, there appears to be a close relationship between convergence and overall growth. For the OECD countries in 1950-1973 strong growth coincided with strong convergence. Since then, however, slower growth, weaker investment and sharper macroeconomic shocks have slowed productivity growth in all the member countries. In general, however, the poorer countries have suffered relatively more from this slowdown, and the convergence process has decelerated; indeed, on some measures it has actually gone into reverse.[29]

3. Economic convergence in the European Union

The conclusions outlined above concerning the industrialized (OECD) countries in general have particular validity for the countries of the European Union, where economic integration has been fastest. Since 1972, some less industrialized countries, with distinctly lower per capita income levels, have joined the Union. Until the early 1970s, convergence was strong among the 12 countries, more so for productivity than for income. After 1973 productivity convergence continued, but at a slower pace, while there was divergence for income.

During 1986-1990 convergence in income was reestablished, albeit against a backdrop of much slower average growth.[30]

Behind these convergence figures lies strong growth in the four peripheral economies that became EEC members after 1972.[31] A closer examination of sectoral trends also shows that a faster pace of convergence has been linked to strong growth in manufacturing, notably in Spain and Ireland. However, in Greece, Portugal and Spain, the fastest period of growth occurred prior to joining the Community. Moreover, the acceleration of growth in the second half of the 1980s which followed their accession failed to be sustained thereafter. Indeed, from 1990 to 1995 average annual growth in those three countries fell back to or below the EEC average.

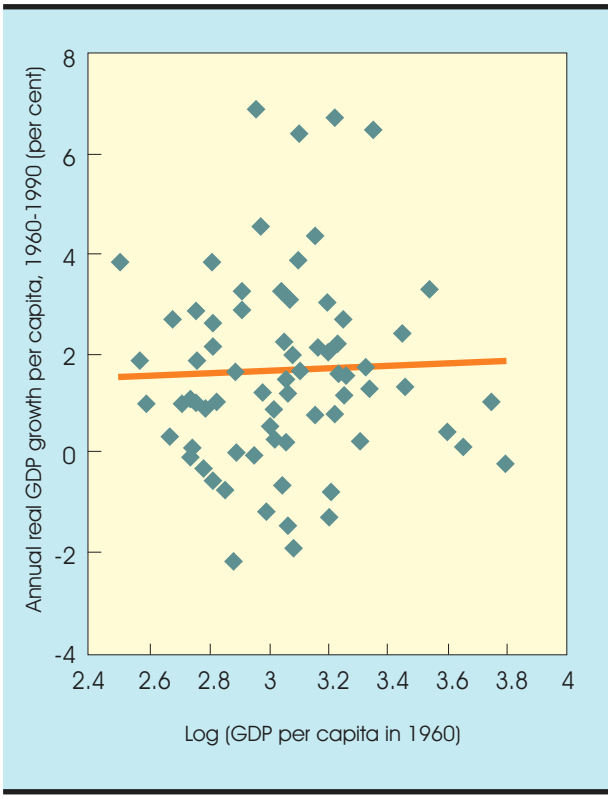
As discussed in greater detail in the next section, trade has tended to play a supportive rather than a leading role in this convergence experience,[32] and the same also appears to hold for capital flows, including FDI. The one possible exception is Ireland, where growth since the end of the 1980s has not only exceeded that in the 1970s, but has been fast enough to suggest that the country has embarked on a dynamic catching-up process. In this respect, the large inflows of FDI seem to have played an important role, given the size of the Irish economy. However, as a share of overall investment inward FDI has been no more important in Ireland than in the other three peripheral countries, where growth performance was weaker. Moreover, there had been an even larger inflow of FDI during the 1970s, with no such growth. Large transfers from EEC, which exceeded 5 per cent of GNP in the 1990s, as well as selective industrial policies aimed at linking FDI to the development of indigenous industrial capabilities, with emphasis on technology and exports, have played a particularly important role in the growth performance of the Irish economy in this more recent period.[33]

4. Divergence within the developing world

As noted above, over the past three decades the developing countries as a whole have failed to move closer to the developed countries. Simultaneously, there has been a strong divergence within the developing world itself whereby countries with low initial per capita incomes have fallen further behind the others (chart 5). Increased dispersion has been accompanied by a significant increase in the absolute income gap between the richest and poorest developing countries. In 1960 the richest developing economy, in terms of purchasing power parity, was Venezuela, with a per capita income of $6,338, and the poorest was Lesotho, with only $313. By 1990 the richest was Hong Kong ($14,849) and the poorest Chad ($399). The ratio of maximum to minimum per capita income thus rose over this period from 20:1 to 37:1. Growing polarization since 1965 among developing countries is illustrated by recent data of IMF, which classifies developing countries (excluding major oil exporters) into five income brackets, each defined in relation to the per capita income (in purchasing power parity terms) of the richest developing country. There were considerably fewer developing countries with income levels ranging from 40 per cent to 80 per cent of the income of the richest country in 1995 than in 1965 and a much larger number

Chart 5

INCOME CONVERGENCE AND DIVERGENCE AMONG DEVELOPING COUNTRIES IN 1960-1990



Source: UNCTAD data base.

Table 30

INCOME CONVERGENCE AMONG DEVELOPING COUNTRIES, BY REGION, 1960-1990

(Coefficient of variation of per capita income)

Region	*1960*	*1970*	*1980*	*1990*
Africa	0.49	0.57	0.64	0.68
Asia	0.46	0.60	0.75	0.81
Latin America	0.51	0.50	0.51	0.53
All developing countries	0.62	0.70	0.79	0.87
Memo item:				
Developed countries[a]	0.51	0.43	0.38	0.34

Source: UNCTAD secretariat calculations, based on the Penn World Table (see text, note 22).

Note: The table relates to 82 developing countries for which data throughout 1960-1990 were available.

a Excluding the former socialist countries of Eastern Europe.

of countries had fallen by 1995 into the category of the poorest 20 per cent. These forces of polarization that prevailed throughout the period were intensified in the early 1980s.[34]

Among Latin American countries the dispersion of income was quite high in 1960 and has changed little since; after some narrowing until the late 1970s dispersion has increased in the 1980s (table 30). Brazil, Colombia and Mexico all experienced per capita growth rates in excess of the wealthiest Latin American economies, although only Brazil came close to the OECD average. In all three countries growth has slown down sharply since the early 1980s. By contrast, since the mid-1980s Chile, one of the region's richest economies, has achieved growth rates well in excess of the regional average and high enough to enable it to catch up with the industrialized countries of the world.

In Africa there has been a gradual widening in the dispersion of incomes throughout the past three decades, particularly in the 1970s. Only Botswana, Morocco and Tunisia, among the larger economies, have been able to narrow the gap with the industrial countries over the entire period, although only in Botswana was growth significantly faster. As a consequence, these countries have reduced their income gap with the richest African countries. Since 1973 growth in Egypt, Cameroon and Cape Verde has been faster than the regional average, although the most impressive performance over this more recent period has been by Mauritius, which has always been one of the wealthiest African countries.

In Asia, where, unlike the two other developing regions, average per capita growth has exceeded that of OECD countries during the past three decades, there are considerable intra-regional differences, particularly between the rapidly growing East Asian economies and the slow-growing South Asian ones. Consequently, income divergence has increased sharply. In South Asia there was not a single economy with an average per capita growth rate in excess of the OECD average during 1960-1990, although some have emerged since 1973, in part due to the slowdown in OECD.

In East Asia growth has been spectacularly fast, beginning with Japan and then in the first-tier NIEs (Hong Kong, Republic of Korea, Singapore, and Taiwan Province of China). Japan, Hong Kong and Singapore have already graduated to the ranks of the richest economies and the other two economies have crossed the convergence threshold. However, with the exception of Japan, these are all small economies, with a combined population of less than 70 million. There are none the less signs of a wider dynamism emerging in this subregion, which shares some of the characteristics of the convergence process described above for the OECD countries.

As examined in detail in *TDR 1996*, a number of economies (Indonesia, Malaysia and Thailand) in South-East Asia have experienced sustained growth in excess of the world average for over four decades, with a strong acceleration over the past decade or so which has been accompanied by a very fast pace of capital accumulation and large structural shifts from resource-based to industrial activities. A third tier of rapidly growing developing countries has emerged in the subregion over the past two decades. Among this group of countries, China has had perhaps the most impressive performance, with double-digit growth rates. As a result of strong growth in these poorer economies and the slowdown in Japan and the first-tier NIEs associated with industrial maturity, greater income convergence is likely to be experienced in East Asia.

E. Trade, growth and convergence

The discussion above shows that income divergence has been the dominant trend in the world economy over the past 120 years, and that convergence has taken place only within a small group of industrial economies, particularly since the early 1950s. At various times since the second World War a number of countries, both in Latin America and in Central and Eastern Europe, managed to achieve very high growth rates, but they proved unsustainable, and in most cases the catching up process came to an end or the economies actually fell further behind. Only the first-tier NIEs of East Asia have exhibited a strong and sustained tendency to catch up with the industrial world.

This experience contrasts sharply with the prediction of traditional growth theory that poor economies have an inherent tendency to catch up, through faster growth, with the more advanced economies. An increasingly popular explanation of the postwar experience emphasizes the resistance of developing countries to full integration into the global economy. On this view, only those developing economies which remained open during the past three decades were able to outperform the more advanced industrial economies, while those that stayed closed fell further behind.[35]

Some studies of the determinants of economic growth found evidence in support of this explanation, but of the 50 variables that have been considered as determinants of growth, perhaps the only one on which there has been broad consensus is investment.[36] This consensus rests on the familiar principle that the direct contribution of investment to productivity growth, and the strong complementarities with other elements in the growth process, such as technological progress and skill acquisition, make investment a natural point of departure for policymakers seeking to formulate a robust development strategy. This was the conclusion already reached in the earlier convergence literature and has always been the focus of much of the historical literature on industrialization and economic development.

In a more open and integrated world economy both the quantity and the quality of investment are increasingly influenced by external factors. However, the forces driving capital accumulation retain strong domestic roots, and an economy that leaves development to global market forces alone is likely to be disappointed. Experience shows that carefully managed and phased integration is the key to success.

The remainder of this chapter addresses these issues. This section considers the possible contribution of international trade to growth and convergence in developing countries, and is followed by an examination of the impact of capital mobility on accumulation.

1. Trade and growth

Analysis of the links between trade and economic growth has long been hampered by ambiguities surrounding the categorization of national trade policies. Two concepts, openness and outward orientation, have often been used interchangeably for this purpose. In common parlance, however, openness refers to a situation characterized by the absence of restrictions on flows of goods across national borders, notably on imports. By contrast, outward orientation usually depicts a strategy of emphasizing world markets as an outlet for domestic producers, and is often synonymous with export promotion. A number of countries which are described as outward- or export-oriented in the above sense have often had important, but selective, restrictions on imports, even though such barriers tended to be lower than in countries emphasizing domestic rather than world markets.

The tendency to equate these two concepts in describing and assessing trade policy has its roots in the conventional trade theory that policies that combine protection with export promotion produce the same result as those relying on full-scale im-

port liberalization, because they are equivalent in terms of incentive structure - a proposition that is valid only under very special conditions. This tendency has also given rise to a confusing proliferation of empirical indicators which are used interchangeably in connection with trade policy. However, findings of a recent survey examining six common measures of trade policy indicate that countries can be very differently ranked according to the measure used, and there are few significant cross-country correlations between these measures.[37] These findings raise obvious questions about the reliability of the various indicators in capturing some common aspects of trade policy, and about the interpretation of the empirical evidence on the relation between trade and economic performance.

Even when agreement can be reached on the appropriate concepts, the role of related measures within a broader development strategy can raise difficult issues. For example, if, as in some studies, an economy is considered open when its average tariff rate is less than 40 per cent and non-tariff barriers cover less than 40 per cent of trade, then on this criterion the first-tier East Asian NIEs would be classified as having been consistently open over the past 30 years or so, and their strong growth performance would bias the empirical results in cross-country regressions in favour of a link between openness and growth and convergence. Indeed, much of the evidence on the causation between high and rising shares of imports and exports, on the one hand, and rapid economic growth, on the other, hinges on the performance of a small number of East Asian NIEs which account for as much as three quarters of the increase in the share of developing countries in world manufactured exports from 1970 to 1990. However, a careful examination of these economies, notably the Republic of Korea and Taiwan Province of China, shows that while they were outward-oriented in the above sense, their trade policies were not liberal. They were not designed to align domestic prices to those in world markets so as to capture static efficiency gains. Indeed, there is ample evidence that price distortions in these economies were pervasive, even more so than in many other developing countries with a much less impressive economic performance. Rather, trade policies were designed to attain dynamic gains from linking trade to capital accumulation and technological change.[38]

In *TDR 1996* the UNCTAD secretariat introduced the idea of an export-investment nexus to capture the wider and mutually reinforcing set of growth-enhancing linkages between trade and investment. Exports enable domestic savings to be raised and balance of payments constraints on capital goods imports and accumulation to be overcome. But since export expansion depends on the creation of productive capacity in industry as well as on productivity growth, a sustainable growth process requires mutually reinforcing interactions between investment and exports. These interactions perhaps explain why an extensive body of research has long confirmed a strong correlation between trade and economic growth, but has been unable to establish causation.[39]

The extensive intervention of governments in East Asia in animating an export-investment nexus is by now well documented.[40] They pursued vigorous trade and industrial policies designed to stimulate local industry, applying export incentives and protectionist measures for industries at different stages of maturity. Export promotion through subsidies for certain industries was combined with protection for infant industries, rendering the conventional dichotomy between the two meaningless. Since tight restrictions on some imports were accompanied by low or zero tariffs on others, the average tariff rate and overall coverage was quite low. Measures of openness which conceal these facts conveniently ignore the central policy issues arising from this experience. To say that countries will suffer if they have an average tariff or quota coverage of more than 40 per cent says very little about the impact that selective trade and industrial policies might have on economic growth.

Trade policies would not have by themselves been sufficient to animate a dynamic growth process without the very rapid pace of investment. As examined in greater detail in chapter VI below, none of the governments in East Asia, with the possible exception of Hong Kong, left the pace or direction of investment to market forces; they employed a variety of fiscal and financial measures to foster reinvestment of profits and accelerate capital formation. In this context, trade was used to complement and enlarge the benefits of a fast pace of capital accumulation.

An examination of specific liberalization episodes in industrial countries to ascertain the impact on subsequent growth rates and the timing of income convergence also confirms this conclusion. The most commonly cited case of a direct relationship between the timing of trade liberalization and

income convergence concerns the countries of the former European Economic Community (EEC) following the reduction of tariffs and the elimination of quotas initiated in 1959.[41] However, tariffs were still quite high in 1963 when the rapid convergence came to an end, and most of the spectacular increase in intra-EEC trade took place thereafter. Intra-EEC imports rose from 4 per cent of the combined GDP of the six countries in 1951 to only 6 per cent in 1963. It is difficult to believe that such a modest increase in trade, mostly concentrated towards the end of the period, could have been a major factor behind the impressive convergence of incomes which occurred during this period. A more convincing argument is that rapid growth in all the countries and income convergence among them led to a mood of optimism and created the political conditions required to dismantle trade barriers, which in turn led to a rapid expansion of trade and a virtuous growth circle. In all these countries, a very rapid pace of capital accumulation since the early 1950s, particularly in manufacturing, provided the basis of the convergence process, a process which was reinforced by closer integration through the growth of intra-industry trade.[42]

2. Trade and the convergence of wages

Because the immediate impact of trade liberalization is to change relative prices in line with a country's resource endowments, a general move towards greater openness in the world economy should be reflected in narrowing wage gaps among countries. Demand for labour should shift towards less-skilled workers in the South and more highly skilled workers in the North, raising relative wages of the unskilled in the former and of the skilled in the latter. Over time, wages of all similarly skilled workers should fully converge in the context of overall gains from increased trade.[43]

Despite the emphasis on the growth opportunities created by trade, there is growing concern in the North that trade with developing countries is bringing down wages of unskilled workers towards those in the South. However, as discussed in greater detail in *TDR 1995*, although such a tendency is consistent with the experience of growing wage differentials between skilled and unskilled labour in a number of advanced industrial economies, it is difficult to reconcile the actual size, scope and timing of wage movements in the North with shifts in North-South trade. So far, less attention has been paid to the impact of trade liberalization on wage differentials between skilled and unskilled labour in the South itself, an issue which is addressed in chapter IV. This section focuses on wage gaps between similar workers in developed and developing countries.

The body of accumulated evidence, from both developed and developing countries, does not show any long-run wage convergence trend in the world economy.[44] From samples of countries at similar levels of development there is some evidence of wage convergence, but it is less evident the greater the number of countries included in the sample. A number of studies focusing on the former EEC have found some support for wage convergence among those countries.[45] The evidence is less clear when other OECD countries are also considered. Up to the early 1980s, growing trade among those countries was associated with wage convergence. Thereafter, however, no clear convergence pattern emerges, and average real wages of production workers in a number of countries, including the United States and the United Kingdom, diverged from the highest-wage countries such as the then Federal Republic of Germany.[46] As regards developing countries, a comparison of wage trends in 16 high-income and 8 middle-income countries at the industry level shows a statistically significant convergence of relative wages towards the worldwide mean due to greater international trade. However, convergence is modest and limited to the high-income economies.[47]

Over the past two decades most developing countries have experienced rising wage gaps with the North, sometimes either because real wages have declined in absolute terms (as in Latin America and much of Africa in the 1980s) or because they have risen less than in the developed countries (as in much of South Asia). The exception is the first-tier of East Asian NIEs, where manufacturing wages have converged on those of the North quite rapidly.

These general trends hold for all skill levels. Table 31 shows changes in the wage gap between various developing countries and the United States for a number of low, medium and high-skill industries from 1980 to the early 1990s. In all these countries except Kenya, the share of exports and imports in GDP rose sharply over this period. However, in most countries, and for all skill levels, there has been a strong decline in the wage of developing countries relative to the United States.

Table 31

WAGES AND PRODUCTIVITY PER EMPLOYEE IN SELECTED DEVELOPING COUNTRIES AND INDUSTRIES RELATIVE TO THE UNITED STATES, 1980 AND 1993[a]

(Ratio to the United States level)

A. Annual wage per employee

	Textiles		Clothing		Transport equipment		Printing and publishing	
Country	1980	1993	1980	1993	1980	1993	1980	1993
Mexico	0.43	0.21	0.49	0.24	0.37	0.17	0.38	0.21
Chile	0.37	0.23	0.45	0.26	0.25	0.15	0.50	0.35
Colombia	0.23	0.11	0.19	0.10	0.13	0.07	0.16	0.09
Hong Kong	0.38	0.57	0.52	0.64	0.29	0.45	0.30	0.44
Republic of Korea	0.21	0.51	0.23	0.61	0.18	0.45	0.28	0.52
Malaysia	0.10	0.17	0.07	0.19	0.10	0.13	0.12	0.19
Indonesia	0.04	0.04	0.06	0.05	0.07	0.03	0.07	0.04
Turkey	0.21	0.33	0.24	0.24	0.26	0.27	0.28	0.33
India	0.08	0.05	0.08	0.05	0.06	0.04	0.07	0.05
Kenya	0.13	0.03	0.14	0.03	0.07	0.03	0.24	0.04
Morocco	0.24	0.13	0.14	0.14	0.30	0.14	0.32	..
Memo item:								
Germany	1.24	1.32	1.31	1.45	0.97	1.08	1.30	1.32

B. Value added per employee

	Textiles		Clothing		Transport equipment		Printing and publishing	
Country	1980	1993	1980	1993	1980	1993	1980	1993
Mexico	0.43	0.25	0.84	0.22	0.50	0.35	0.40	0.22
Chile	0.57	0.32	0.72	0.34	0.55	0.20	0.84	0.44
Colombia	0.48	0.27	0.29	0.13	0.25	0.17	0.26	0.20
Hong Kong	0.35	0.43	0.42	0.41	0.23	0.29	0.28	0.33
Republic of Korea	0.29	0.63	0.28	0.65	0.24	0.54	0.29	0.57
Malaysia	0.16[b]	0.20	0.12[b]	0.14	0.13[b]	0.19	0.16[b]	0.20
Indonesia	0.08	0.07	0.05	0.07	0.17	0.16	0.07	0.08
Turkey	0.40	0.40	0.34	0.41	0.27	0.33	0.27	0.46
India	0.07	0.03	0.07	0.08	0.05	0.03	0.05	0.03
Kenya	0.14	0.02	0.13	0.03	0.05	0.01	0.15	0.03
Morocco	0.20	0.11	0.10	0.09	0.23	0.13	0.19	..
Memo item:								
Germany	0.94	1.19	1.26	1.33	0.86	0.83	0.95	0.82

Source: UNIDO, *Handbook of Industrial Statistics 1988* and *International Yearbook of Industrial Statistics, 1996.*

a Or most recent year available.

b 1975.

The exception to this trend has been the Asian NIEs, particularly those in the first-tier, such as the Republic of Korea, where wages for all skill levels have converged on the United States.

These widening wage gaps in manufacturing, both between developed and developing countries and also among developing countries, have coincided with a period of greater openness in the developing world. However, it is difficult to explain these trends simply in terms of differences in factor endowments, including differences in educational attainment. Rather, for most developing countries, strong growth in wages depends upon industrial expansion and upgrading so as to achieve higher levels of employment and rapid productivity growth in the economy as a whole, as well as in specific industrial sectors. A recent study of real wage growth in manufacturing in 32 developing countries for 1973-1990 confirms that the impact of trade on wages cannot be divorced from investment and productivity performance, and that greater openness to trade in this group of countries in the 1980s did not coincide with stronger wage growth.[48] As table 31 shows, those countries in East Asia which exhibited strong wage convergence also exhibited strong productivity convergence. This result has been attained in the context of the investment-export nexus described above, rather than as a result of spontaneous global market forces.

F. Capital mobility, growth and convergence

As noted above, the clearest sign of globalization has been the rapid increase in international flows of capital. It is precisely this aspect of globalization that is expected to yield the greatest benefits for developing countries. These benefits should arise from the contribution of capital flows to the two principal determinants of the catching-up process, namely capital accumulation and technology transfer.

This section first examines these propositions against the background of the historical evidence. It is argued that greater capital mobility can bring significant benefits to developing countries but that these benefits depend crucially on how a country manages its integration with global capital markets. It then examines to what extent increased capital movements help accelerate global growth by responding to opportunities for investment in physical assets, thereby equalizing rates of return on investment everywhere. It is found that there is an upward convergence of profits in OECD countries, where capital markets are much more closely integrated, but that higher profits are not associated with increased investment and faster growth. Rather, they have been brought about by the stronger bargaining power of capital against labour associated with globalization.

1. Foreign direct investment

The recent acceleration of flows of FDI has renewed interest in the role of transnational corporations (TNCs) as engines of economic growth, particularly in developing countries. Indeed, this role has been given prominence in many recent accounts of the contemporary globalization process, primarily for three reasons. First, unlike most other capital flows, FDI does not represent a fixed charge on foreign exchange reserves; second, it is a less volatile source of financing for the accumulation process; and third, it can have more direct links to economic growth than other cross-border flows, particularly because it facilitates the transfer of technology and generates spillovers into other sectors.

All these reasons carry considerable weight. The experience with FDI before 1913 suggests that it can indeed bring about a transfer of real resources internationally. Likewise, United States investment in Europe after the second World War was important in diffusing new technology. The success of some East Asian NIEs in attracting FDI with a strong export orientation also helped compensate for deficiencies in domestic technological and or-

ganizational skills during critical periods of their industrialization. However, there are a number of aspects of the current globalization experience that suggests that the impact of FDI on growth and convergence requires careful assessment before designing policies which aim to maximize the benefits from hosting TNCs.

Assessing the impact of recorded increases in FDI flows is especially difficult because they include a number of different types of investment activity with different effects. Greenfield FDI, which involves a firm constructing a new production facility abroad financed by capital raised in the home country, clearly makes a positive contribution to capital formation in the host country. The acquisition of a controlling interest in an already existing firm is likely to have a different impact from greenfield investment, and seems to correspond more to shorter-term capital flows. This may also be true for retained earnings. Although it is often presumed that these earnings are automatically reinvested in physical capital, existing statistical measures cannot distinguish between their use for such a purpose and their investment in financial assets.

Many of the changes in global financial markets that have facilitated capital mobility and the increase in FDI flows have also made it more difficult to evaluate their stability. Evidence suggests that even when FDI is governed by long-term considerations, such as real rates of return and securing market shares, aggregate FDI flows can respond rapidly to changes in short-term economic conditions. This is particularly true for non-repatriated earnings on existing stocks of FDI, which have constituted in recent years a more important source of asset acquisition abroad by United States and United Kingdom firms than capital outflows from those countries. As recognized by a recent World Bank study, even those forms of FDI that make the greatest contribution to host-country investment may involve unstable financial flows:

> Because direct investors hold factories and other assets that are impossible to move, it is sometimes assumed that a direct investment inflow is more stable than other forms of capital flows. This need not be the case. While a direct investor usually has some immovable assets, there is no reason in principle why these cannot by fully offset by domestic liabilities. Clearly, a direct investor can borrow in order to export capital, and thereby generate rapid capital outflows.[49]

These considerations suggest that a developing country that relies on FDI rather than portfolio inflows is not necessarily protected against external financial instability. It thus still needs to pay attention to the management of its balance of payments and to macroeconomic stability.

Any examination of the impact of FDI on economic growth and convergence must also bear in mind a number of other considerations. Although evidence suggests a positive association between FDI and growth, it is difficult to determine causation.[50] A realistic interpretation of the evidence suggests that there is a threshold level of income which needs to be crossed before FDI can make a significant contribution to overall growth performance.[51] Such a conclusion is also broadly consistent with the finding that technology and other spillovers from TNCs become significant only when there is already in place an appropriate level of local capabilities.[52]

It appears that FDI is attracted to economies with a proven growth record, be it to seek markets or cost advantages, in which case it can become part of a virtuous growth circle. However, much of the developing world remains outside this universe of international production because cost advantages alone do not offset low productivity levels or the absence of productive assets needed to complement firm-specific plant and equipment. Furthermore, risks associated with investment tend to be inversely related to the stage of development reached. While incurring these risks may be justified by the expectation of monopolistic profits associated with the exploitation of a particular natural resource in a poor developing country, there will be no such exceptional or monopolistic elements in manufacturing or services. Any attempt in these countries to improve cost advantages by easing their entry conditions for FDI, or by reducing wages further, will almost certainly fail to offset other disadvantages which cause the risk premiums to be high.

These considerations explain why the recent rapid surge in FDI flows to the South has remained heavily concentrated among a handful of developing countries. In 1993 the 10 largest host developing countries accounted for 79 per cent of the total FDI flow to the South; seven of them were in East Asia and alone accounted for close to two thirds of the total inflow. However, it should be kept in mind that in many developing countries FDI is unlikely to play the same role as in some East Asian countries. Malaysia is often cited as an ex-

Table 32

COMPARATIVE INFLOW OF FDI INTO MALAYSIA AND OTHER DEVELOPING COUNTRIES

(Average annual FDI inflow in 1991-1993)

	Total ($ billion)	*Per capita ($)*	*Percentage of 1990 GDP*
Malaysia	12.8	*241.8*	*10.0*
Developing countries[a]			
Actual inflow	136.8	16.5	1.4
Hypothetical inflow (I)[b]	2007.8	*241.8*	20.9
Hypothetical inflow (II)[c]	957.7	115.3	*10.0*

Source: R. Rowthorn, "Replicating the Experience of the NIEs" (mimeo), Cambridge, United Kingdom, 1996.
a Excluding the first-tier NIEs.
b Assuming the FDI inflow per capita to be the same as for Malaysia.
c Assuming the FDI inflow as a percentage of GDP to be the same as for Malaysia.

ample of how to sustain rapid growth by attracting very large inflows of export-oriented FDI. Indeed, on both a per capita basis and relative to GDP, Malaysia had one of the largest stocks of inward FDI in the developing world in 1990 and inflows have continued to be substantial, constituting a major source of external financing. However, even if all other developing countries had the domestic prerequisites which would allow them to replicate Malaysia's experience, substantial increases in total FDI flows to the South would be required. As table 32 shows, even a modest replication of the Malaysian experience throughout the developing world implies a level of FDI outflows from the North that it would be totally unrealistic to expect. If all developing countries other than the first-tier NIEs received from OECD countries the same amount of FDI as a proportion of GDP as did Malaysia in 1991-1993, total FDI outflows from those countries would amount to about 27 per cent of their spending on investment. If, on the other hand, they received the same per capita FDI as Malaysia, the proportion would rise to 56 per cent.

In any event, the contribution of FDI to growth and industrialization depends very much on the degree of control that the foreign firm retains over its assets. The general body of evidence suggests that the nature and extent of any spillovers to domestic firms is industry-specific and depends on how domestic policymakers manage FDI, including its role in the export-investment nexus. Indeed, the role of policy is now even greater, given that the determinants and organization of FDI flows have become more complex. Rather than pursuing cost-reducing and/or market-seeking strategies aimed at raising corporate profits in a particular location, TNCs are increasingly seeking to combine these objectives around a tightly organized intra-firm division of labour where the choice of location for a specific activity is made in the context of the overall profitability of the firm. By widening the choice of possible locations in this way the advantages for the firm can be numerous. However, and particularly in developing countries, the consequence may well be that FDI becomes more footloose than in the past, relying heavily on imported inputs from other affiliates and with fewer linkages with and technological spillovers to the host economy.[53]

In this context it is important to recognize the different ways in which FDI has been attracted to and used in East Asian economies. While Hong Kong took a more laissez-faire approach, the attitude toward FDI was much more selective in the Republic of Korea and Taiwan Province of China and also, though to a lesser extent, in Singapore.

A larger array of policy measures could consequently be brought to bear on FDI to ensure that it made a positive contribution to economic growth. To date, the successful second-tier NIEs have taken a middle way. However, as discussed in *TDR 1996*, concern over heavy reliance on imported intermediate goods and over weak supply and technology linkages between the TNC-dominated export sectors and the domestic economy has already triggered more active industrial and technology policies in these countries, including the use of local content agreements and more selective incentives to attract higher-valued added activities and generate FDI spillovers in the areas of training and R&D.

2. Financial flows

An important difference between the current process of integration of global markets and that of the 19th century lies in the nature of financial flows. As noted above, in the earlier period greater integration of financial markets and increased flows of financial capital were complementary to international trade. In the more recent period, by contrast, finance is not simply a lubricant to real economic activity. The role of international finance has extended well beyond the coordination of international trade and investment. It has gained a life of its own independent of the international flow of goods and investment.

This is not to say that global linkages of finance with trade and FDI have been totally severed. The recent expansion of world trade and of TNC activities could not have taken place without a corresponding expansion of the global operations of financial institutions. Increased international trade in goods has necessitated an expansion of financial services; intermediaries now operate in each market to provide foreign exchange services and trade financing. The increased need for firms to secure foreign exchange cover in respect of both export earnings and foreign investment has added momentum to this process by providing a major role for international banks.[54]

However, this global financial deepening has occurred while the link between financial flows and foreign investment has considerably weakened. These financial flows are rarely associated with the flows of real resources - i.e. capital equipment embodying best-practice production techniques and other resource inputs seeking the highest available rates of return in the production of goods and services. Rather, they are primarily related to the purchase and sale in secondary markets of liabilities created for the financing of already existing real assets. As discussed in previous *TDR*s, a large proportion of these flows consists of liquid capital attracted by short-term arbitrage margins and prospects of speculative capital gain, rather than by long-term yields on productive investment. They are extremely volatile and subject to bandwagon effects, capable of generating gyrations in security prices, exchange rates and trade balances. They make little contribution to the international allocation of savings or diffusion of technology and hence to a reduction in international disparities in per capita income.

It is increasingly argued that financial globalization is creating systemic effects that undermine global stability and growth. Large swings in exchange rates and current account balances brought about by the volatility of capital flows tend to create considerable uncertainty regarding prospective yields on investment, particularly in traded goods sectors. This raises the minimum expected rate of return that will induce investors to undertake long-term investment, thereby slowing output growth. The problem is particularly serious for developing countries, where firms cannot always hedge against such risks by allocating their activities globally and through financial operations. Their outward-oriented strategies can consequently be endangered as investment in traded-good industries is depressed.

Experience shows that the factors that encourage inflows of liquid capital can also impede investment in productive physical assets. Circumstances can arise when the short-term return on financial assets and the return on productive capital investment move in opposite directions. When domestic short-term interest rates are raised relative to rates abroad in order to stabilize the economy or reduce the pace of expansion, they can attract liquid capital, placing upward pressure on the exchange rate. At the same time they may depress investment. For one thing, the slowdown of home demand, together with loss of competitiveness due to currency appreciation, can reduce the expected real return on capital assets. For another, the increase in the real return on financial assets can raise the cost of financing productive investment. As a result, the liquid capital inflows attracted by high interest rates are not used for

productive investment; on the contrary, such investment may contract as short-term funds flow in.

This has indeed been the experience of a number of countries during the past two decades. In the 1980s capital flowed primarily from countries with high investment rates (e.g. Japan) to countries with low investment rates (e.g. the United States), and served to finance consumption rather than investment. Similarly, a very large part of the flows to Latin America in the first half of the 1990s financed consumption rather than investment and growth.

However, as examined in last year's *TDR*, a number of developing countries have been able to manage financial flows successfully. They have resorted not only to conventional methods, such as intervention in foreign exchange markets or adoption of more flexible exchange rate policies, but also to more direct controls, including quantitative restrictions on holding and issuing foreign currency assets and the composition of non-interest-bearing reserve requirements. Successful management of capital flows has depended on a flexible and pragmatic approach designed to maintain stable and sustainable exchange rates and current account positions without impeding capital flows related to trade and investment.

3. Capital mobility, accumulation and convergence of profits

As noted above, greater capital mobility is expected to sever the link between national savings and investment so that individual countries can save more than they invest, or invest more than they save. It should also lead to a greater equalization of the real rate of return on capital among countries. This section examines the available evidence, concentrating on the major OECD countries, where capital markets are much more closely integrated. Recent trends in profits in developing countries are discussed in chapter IV below.

The evidence for the OECD countries for the 1960s and 1970s shows a broad balance between national savings and investment. A seminal study relating the shares of gross domestic investment and gross national savings in GDP in those countries for 1960-1974 concluded that national savings tended to be invested in the country where they originated.[55] Moreover, this close link between national savings and investment holds even when a number of other factors are taken into account. Although the link is somewhat weaker in the 1980s, the evidence still confirms the existence of substantial imperfections in international capital markets.[56] These results are incompatible with the idea that over the long term international capital flows can exert a significant influence on national investment and growth rates.

However, these studies do not distinguish between the effects of FDI and of portfolio investment on capital accumulation, and there is little direct evidence on the effect of inward or outward FDI. However, according to a study relating to OECD countries, each dollar of outward FDI reduces investment in the home country by approximately one dollar and is not compensated by an inflow of portfolio investment.[57] Accordingly, portfolio investment cannot be lumped together with FDI in analysing the impact of international capital mobility on accumulation. It is indeed argued that while financial flows do not alter the dependence of domestic investment on domestic savings, this is not necessarily the case for FDI:

> ... an extra dollar of national saving would remain in domestic portfolio assets unless it is used by a multinational corporation to finance a cross-border direct investment. ... If the portfolio investments were completely segmented into national markets in this way, the effect of the outbound FDI on domestic available funds would not be offset by an international flow of portfolio capital and the aggregate domestic investment would be reduced by the full amount of the direct investment outflow.[58]

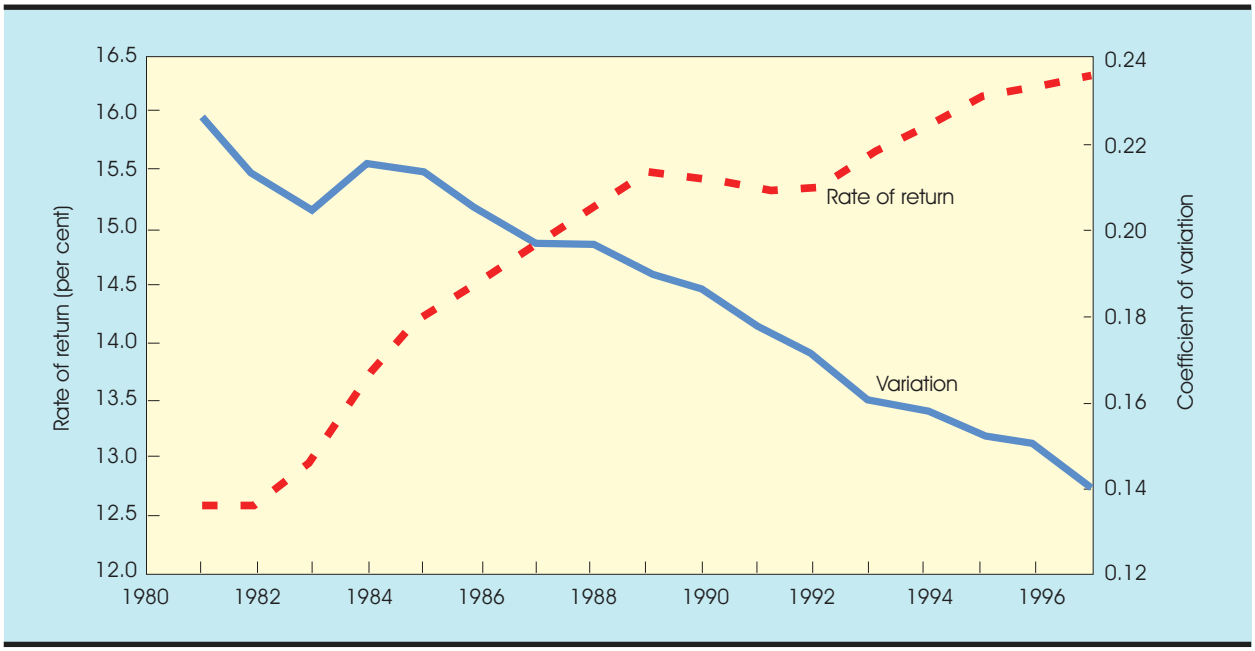
Thus, according to this evidence, over the long term financial flows do not reduce the dependence of capital accumulation on domestic investment. By contrast, FDI alters the domestic savings-investment balance; while outward FDI reduces investment in the home country, it appears to add to domestic investment in the host country. It follows that, to the extent that capital flows equalize rates of return on investment in different countries, they do so for FDI rather than for short-term capital.

The evidence shows a remarkable convergence of rates of return on capital among the OECD countries in the past 15 years. As can be seen in chart 6, the coefficient of variation in the rate of return on capital for the business sector among the G-7 countries fell significantly after the recession of

Chart 6

RATE OF RETURN ON CAPITAL IN THE BUSINESS SECTOR OF G7 COUNTRIES AND INTER-COUNTRY VARIATIONS[a], 1980-1996

(Per cent)



Source: *OECD Economic Outlook*, No. 61, June 1997.
Note: The chart depicts three-year moving averages. Underlying data for 1997 and 1998 are projections.

1980-1982. A similar tendency is also observed for rates of return earned by United States companies on their investments abroad.[59] For the EU countries, the decline in variation has been more marked since the late 1980s.

This decline in variations in rates of return has occurred while the trend rate of return has been strongly upward. In other words, there has been an upward convergence of rates of return on capital in the major OECD countries. This upward trend in profits is also reflected in the increased share of capital income in the business sector (chart 7) - a tendency that is also to be found in developing countries (see chapter IV). However, the rise in profits has not been associated with a corresponding increase in the aggregate share of private investment in output in those countries, although the same period has witnessed a surge in outward and inward investment in the major industrial countries. It thus seems that increased FDI has served, at least partly, to redistribute, rather than to add to, aggregate global investment.

The tendency for investment shares to decline may have been linked to the other aspect of increased integration in financial flows, namely portfolio flows. As financial engineering has increased the scope to trade long-term fixed income securities for short-term gains, the integration of developed country bond markets has increased. This, along with the convergence in inflation rates which has occurred in recent years, has brought about a marked tendency towards convergence in long-term real rates of return, which are often considered as the most important determinant of investment financing costs. However, the increasing volume of trading in these instruments has tended to increase the volatility of bond prices to the point that in the 1990s they exceeded the volatility of equity prices. The result has been to increase the risk premium and raise long-term rates, which have also been pushed up by monetary policy. Thus, the impact of increased integration and financial flows in such markets has meant upward convergence in real long-term interest rates at historically high levels. The increase in profits

is thus absorbed, at least partly, by increased interest charges on corporate debt, resulting in a downward pressure on investment in the developed economies.

This disparity between the evolution of profits and investment is not new. It is a tendency that emerged in the early 1980s, and that was noted a decade ago by the UNCTAD secretariat:

> The medium-term financial strategies adopted by the major developed market economies at the end of the 1970s sought to reverse the decline in profit shares and rates of return which had occurred in the course of the decade, and which were believed to be responsible for slow growth and unemployment. Thanks to falling raw material prices and wage costs, business profitability has been restored. However, this has not triggered the investment boom that policymakers were expecting. The main reasons are: slow demand growth; continued high real interest rates; and uncertainties regarding the key macroeconomic variables and the trading system. Unless these problems are resolved, investment and growth are likely to remain subdued.[60]

While profits are currently very close to their pre-1970 levels, they generate much less investment than previously. As discussed in greater detail in *TDR 1995*, the main reason for sluggish investment is the low-growth hysteresis created by monetary policy that tends to lock most major industrial economies into growth rates of around 2.5 per cent. By contrast, investment now generates higher profits than before. The evidence invariably points to rising unemployment and falling wage costs as the principal factors behind the surge in profits.[61]

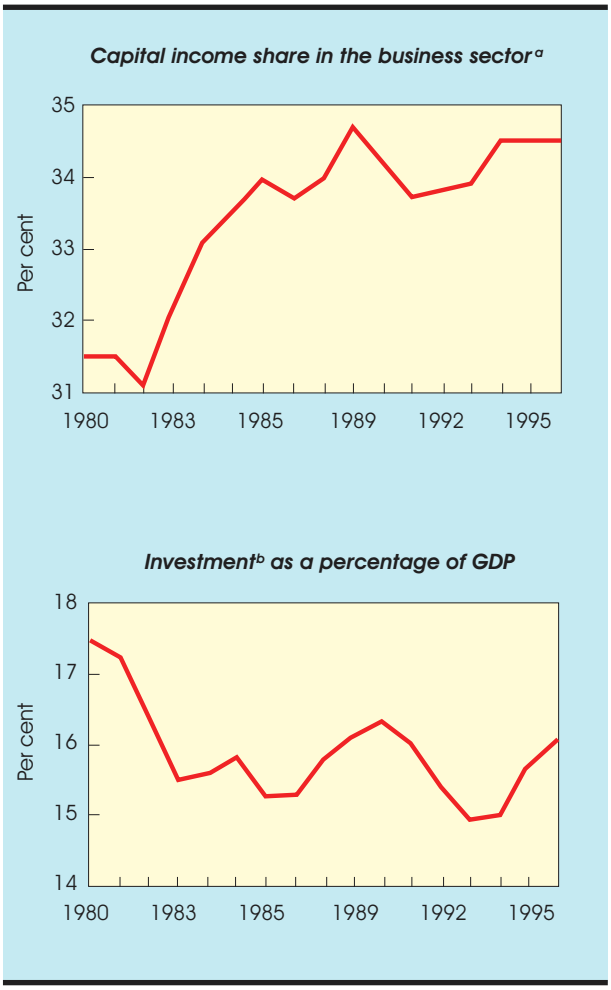
Sluggish demand also generates excess supply in the product market, leading to fierce competition among firms. However, since investment is sluggish and the pace of capacity creation slow, the pressure on profits and prices is more than offset by the dampening effect of increased unemployment on wage levels. Consequently, real labour costs and inflation are reduced as profits rise.

The combination of increased mobility of capital, slow demand growth and excess supply of labour thus appears to be an important element in the rising profits in OECD countries. This process, while putting pressure on real wages does not necessarily lead to a convergence of real wages because of differences in labour market conditions. Those countries which have adopted "flexible" labour market policies tend to retain investment at home and even attract FDI inflows, adding to jobs at relatively low wages in productive sectors. As shown in *TDR 1995*, the policies also lead to the creation of large numbers of low-productivity, low-wage jobs in services sectors, transforming open unemployment partly into disguised unemployment. In countries where wages remain relatively rigid, labour market conditions are reflected in high rates of open unemployment, rather than low wages or disguised unemployment. Thus, as noted above,

Chart 7

PROFITS AND INVESTMENT IN THE G7 COUNTRIES, 1980-1995

(Per cent)



Source: *OECD Economic Outlook*, No.61, June 1997.

a Gross operating surplus of enterprises, i.e. the difference between value added calculated at factor cost (i.e. excluding net indirect taxes) and labour income.

b Gross fixed non-residential capital formation.

there has been no tendency for wages to converge in the OECD area since the early 1980s, despite increased trade and FDI flows.

Moving production facilities to developing countries through FDI in order to lower costs can influence income distribution between labour and capital in the North by creating unemployment and putting pressure on wages. Although a comprehensive empirical analysis of the employment effects is lacking, available evidence suggests that FDI directed to the South has not so far been a significant factor in rising unemployment or inequality in specific sectors in the North. However, the picture is changing rapidly. The emergence of a number of dynamic economies with adequate human and physical infrastructure in Central and Eastern Europe and Asia has certainly widened the options of capital to choose among alternative locations in both labour and skill-intensive production. Furthermore, in many industries it is becoming increasingly possible for TNCs to locate specific activities in the production chain in different countries according to their skill endowments, thereby allowing developing countries to enter more easily into the global system of production. These forces can certainly work towards a greater convergence between developing and developed countries and bring benefits to labour in the South. However, they can also reinforce the global tendency for the share of profits to rise at the expense of wages - something that is unlikely to be reversed as long as global demand is deficient and too much labour chases too little capital. ■

Notes

1 On these trends see D. Felix "Financial globalization versus free trade: The case for the Tobin tax", *UNCTAD Review*, *1996* (United Nations publication, Sales No. E.97.II.D.2), New York and Geneva, 1996; J. Kregel, "Capital flows: Globalization of production and financing development", *ibid.*, *1994* (Sales No. E.94.II.D.19), New York and Geneva, 1994; Y. Akyüz, "Taming International Finance", in J. Michie and G. Grieve Smith (eds.), *Managing the Global Economy* (Oxford: Oxford University Press, 1995).

2 See, for example, J. Sachs and A. Warner, "Economic Reform and the Process of Global Integration", *Brookings Papers on Economic Activity*, No. 1, 1995 (Washington, D.C.: The Brookings Institution, 1995); J. Williamson, "Globalization, Convergence and History", *The Journal of Economic History*, Vol. 56, No. 2, 1996; *Global Economic Prospects and the Developing Countries 1996* (Washington, D.C.: The World Bank, 1996); IMF, *World Economic Outlook*, May 1997.

3 See A. Maddison, *Monitoring the World Economy* (Paris: OECD, 1995), table 2.4.

4 In 1914, the United Kingdom accounted for 41 per cent of the gross nominal stock of overseas investment, France for 20 per cent and Germany for 13 per cent (Maddison, *op. cit.*, table 3.3).

5 The figure rises to perhaps as much as two thirds when related infrastructure and service activities are included. On the sectoral breakdown of FDI in this period, see J. Dunning, "Changes in the level and structure of international production: The last one hundred years", in M. Casson (ed.), *The Growth of International Business* (London: Allen and Unwin, 1984).

6 The expansion of the great British merchant banking houses, for example, that engineered the globalization of trade in the British Empire in the 19th century was based on their ability to integrate the provision of financial services with their trading activities in primary commodities. They soon extended their activities to the underwriting of international bond issues to provide the financing for foreign investments comprised of the export of British manufactured goods, in particular capital goods, thus serving to coordinate the international allocation of financial capital and capital goods throughout the Empire.

7 An estimated 32 million people emigrated from Europe during 1881-1915. During this period, Southern Europe overtook Northern Europe as the main source of emigrants and while the "Western offshoots" (North America and Australasia) remained the leading host nations, Latin America also became an increasingly important destination. There was also large-scale emigration from India and China during this period, although it was to a much greater extent of a temporary nature: see

A.G. Kenwood and A.G. Lougheed, *The Growth of the International Economy, 1820-1990* (London: Routledge, 1992 (third edition)).

8 The Paris Convention for the Protection of Industrial Property was negotiated in 1883 and the Berne Convention for the Protection of Literary and Artistic Works three years later.

9 See M. Wilkins, "Multinational Corporations: An Historical Account", in R. Kozul-Wright and R. Rowthorn (eds.), *The Transnational Corporation and the Global Economy* (London: Macmillan, 1997).

10 In 1870 Britain was among a group of "super-rich" core economies which included the other early industrial economies (Belgium and Switzerland), the Netherlands (an established trading and financial centre) and a group of wealthy primary-producing economies (Australia, New Zealand and the United States) with strong political, economic and cultural links to Britain. But adopting a cut-off per capita income of $1,000, this core in 1870 also included most European economies as well as Canada and Argentina.

11 The initial income gap between leader and followers, although not small, was certainly not so wide as the gap facing today's newly industrializing countries. Finland and Portugal, the poorest European economies in 1870, had a GDP per capita which was one third that of Great Britain, although for per capita manufacturing output the gap was considerably larger (some 6 to 8 times).

12 In Western Europe, the coefficient of variation of GDP per capita remained stationary, at 0.31, between 1870 and 1900 and fell to 0.25 by 1913.

13 Williamson, *op. cit*., p.294.

14 See B. Supple, "The State and industrial revolution 1700-1914", in C. Cipolla (ed.), *The Fontana Economic History of Europe,* Vol. III - *The Industrial Revolution* (London: Fontana, 1973); and R. Kozul-Wright "The myth of Anglo-Saxon capitalism", in H.-J. Chang and R. Rowthorn (eds.), *The Role of the State in Economic Change* (Oxford: Oxford University Press, 1995).

15 See P. Bairoch and R. Kozul-Wright, "Globalization myths: Some historical reflections on integration, industrialization and growth in the world economy", *UNCTAD Discussion Paper*, No.113, Geneva, March 1996.

16 C. Freeman, "New technology and catching-up", *European Journal of Development Research*, Vol. I, No.1, 1989; and J. Campbell *et al*., *Governance of the American Economy* (Cambridge: Cambridge University Press, 1991).

17 As Felix (*op. cit.*, p.65) has shown, although this was an era of stable prices and exchange rates, it was not one of cheap capital; short- and long-term interest rates were higher and more volatile than in 1946-1970. During 1880-1914 only 12 countries remained permanently on the gold standard, and most of them had embarked on a period of sustained growth and industrial transformation prior to their entry; see M. Panic, *European Monetary Union: Lessons from the Gold Standard* (London: Macmillan, 1993).

18 See Kenwood and Loughheed, *op. cit.,* pp. 137-140; D. Senghaas*, The European Experience: A Historical Critique of Development Theory* (Leamington Spa: Berg Publishers, 1985), chap. 3; on Argentina and Mexico in this period see C. Marichal, *A Century of Debt Crises in Latin America* (Princeton, N.J.: Princeton University Press, 1989).

19 This was particularly true of the British colonies, because of the greater dependence of British manufacturing exporters on their colonial markets; see P. Bairoch, *Economics and World History: Myths and Paradoxes* (Harvester: London, 1993), pp.72-79 and pp. 88-92.

20 See D. Ben-David and D. Papell, "Slowdowns and Meltdowns: Postwar Growth Evidence from 74 Countries", *CEPR Discussion Paper*, No. 1111 (London: Centre for Economic Policy Research, 1995).

21 Indeed, from the discussion of global dynamics in the 19th century it is evident that divergence has been the stronger trend for well over a century. This is also the conclusion of a recent study, which estimates that the ratio of GDP per capita of the richest to that of the poorest country has risen from 8.7 in 1870 to 38.1 in 1960 and 51.6 in 1985. The dispersion of global income (as measured by the standard deviation of the log of per capita income), which was between 0.51 and 0.71 in 1870, rose to 0.87 in 1960 and to 1.03 in 1985. See L. Pritchett, "Divergence Big Time", *World Bank Policy Research Working Paper,* No. 1522 (Washington, D.C.: The World Bank, 1995).

22 Data on per capita income in terms of purchasing power parity used in this chapter are taken from the Penn World Tables. Their unique feature is that expenditure entries are denominated in a common set of prices in a common currency so that real international quantity comparisons can be made between countries and over time. For further information see R. Summers and A. Heston, "The Penn World Table (Mark 5): an expanded set of international comparisons, 1950-1988", *The Quarterly Journal of Economics*, Vol. 106, 1991.

23 For a further discussion of the measurement of world income distribution see R. Korzenwiewicz and T. Moran, "World economic trends in the distribution of income, 1965-1992", *American Journal of Sociology*, Vol. 102, No.4, 1997. A comprehensive picture of global income distribution must, of course, take into account the distribution both among and within countries. However, according to this study, the general picture of world income distribution and changes therein does not significantly alter if the distribution within countries is also included.

24 The assessment of the absolute gap among countries and their comparative welfare conditions depends on how per capita income is measured - i.e. whether in constant or current prices or at market

exchange rates or (as above) purchasing power parity (PPP). While PPP provides a better indicator of welfare conditions, the more generally used yardstick of GNP per capita at market exchange rates provides a better indicator of the command that inhabitants of different countries have "over the human and natural resources" of each other. See G. Arrighi, "World Income Inequalities and the Future of Socialism", *New Left Review*, No. 189, 1991. However, the choice of measurement does not appear to influence the overall trends.

25 The number of small island economies in the group of economies moving into the top quintile is notable and, in part, explains why the number of countries in that quintile was larger in 1990 than in 1965.

26 The list of countries covered in this analysis consists of the OECD members as at the end of 1973, other than Turkey (i.e. the 12 countries of the European Economic Community, Australia, Austria, Canada, Finland, Japan, New Zealand, Norway, Sweden, Switzerland, United States).

27 The coefficient of variation with respect to productivity fell from 0.43 in 1950, to 0.21 in 1973 and 0.17 in 1992.

28 See W. Baumol, "Productivity growth, convergence and welfare: What the long- run data show", *The American Economic Review*, Vol. 76, 1986; B. De Long, "Productivity growth, convergence and Welfare: comment", *ibid.*, Vol. 78, 1988; S. Dowrick and D-T. Nguyen, "OECD comparative economic growth, 1950-85: Catch-up and convergence", *ibid.*, Vol.79, 1989; and S. Dowrick, "Technological catch-up and diverging incomes: Patterns of economic growth, 1960-1988", *Economic Journal*, Vol. 102, 1992.

29 On these trends see D. Dollar and E. Wolff, *Competitiveness, Convergence and International Specialization* (Cambridge, MA: MIT Press, 1993); S. Broadberry, "Local Convergence of European Economies during the Twentieth Century", paper presented at seminar on Comparative Historical National Accounts for Europe in the 19th and 20th Centuries, University of Groningen, Netherlands, 1994; E. O'Leary, "Productivity Convergence: A Study of European Union Countries at the Aggregate, Sectoral and Industry Levels, 1960 to 1990" (Ph.D. thesis, Cork: National University of Ireland, 1995); R. Rowthorn, "Productivity and American Leadership", *The Review of Income and Wealth*, Series 38, No. 4, Dec. 1992; and J. Andrés, J.E. Bosca and R. Doménech, "Main patterns of economic growth in OECD countries", *Investigaciones Economicas*, Vol. XIX, No. 1, Jan. 1995.

30 For the entire period 1960-1990 the rate of convergence for the 12 countries has been 1.5 per cent for productivity and 0.9 per cent for income. However, the figures drop to 1.2 per cent and 0.1 per cent, respectively, for 1970-1990.

31 Ireland joined in 1973, Greece in 1981 and Spain and Portugal in 1986.

32 See O'Leary, *op. cit.*, pp.175-191.

33 See B. Walsh, "Stabilization and adjustment in a small open economy: Ireland, 1979-95", *Oxford Review of Economic Policy*, Vol. 12, Autumn 1996; E. O'Malley, "Industrial policy in Ireland since 1920", in J. Foreman-Peck (ed.), *A Century of Industrial Policy* (forthcoming from the Oxford University Press).

34 See IMF, *World Economic Outlook* , May 1997, table 17.

35 See , for example, Sachs and Warner, *op cit.*; and D. Ben-David and A. Rahman, "Technological Convergence and International Trade", *CEPR Discussion Paper*, No.1359 (London: Centre for Economic Policy Research, 1996).

36 There are serious methodological problems associated with such international comparisons; see R. Levine and D. Renelt, "A sensitivity analysis of cross-country regressions", *The American Economic Review*, Sept. 1992; and for a satirical illustration of the limits of such studies, see H. J. Wall, "Cricket v Baseball as an Engine of Growth", *Royal Economic Society Newsletter* (London), July 1995.

37 See L. Pritchett, "Measuring outward orientation in LDCs: Can it be done?", *Journal of Development Economics*, Vol.49, 1996.

38 The theoretical foundations of *dynamic* gains from free trade are indeed controversial. See, for example, D. Rodrik, *Has Globalization Gone too Far?* (Washington, D.C., Institute for International Economics, 1996), p. 30; and the articles on international competitiveness in *Oxford Review of Economic Policy*, Vol. 12, Autumn 1996. On the notion of a virtuous trade-growth circle see the "General study of exports of manufactures and semi-manufactures from developing countries and their role in development" in *Proceedings of the United Nations Conference on Trade and Development*, Vol. IV - *Trade in Manufactures* (New York: United Nations, 1964).

39 For recent reviews see S. Edwards, "Openness, trade liberalization, and growth in developing countries", *The Journal of Economic Literature*, Vol. XXXI, No. 3, 1993; D. Greenaway, "Liberalizing trade through rose-tinted glasses", *The Economic Journal*, Vol. 103, 1993; D. Greenaway and D. Sapsford, "What does liberalization do for exports and growth", *Weltwirtschaftliches Archiv,* Vol. 130, No. 1, 1994; and S. Sharma and D. Dhakal, "Causal analysis between exports and economic growth in developing countries", *Applied Economics*, Vol. 26, 1994.

40 For more detailed discussions see *TDR 1994* and *TDR 1996.*

41 D. Ben-David, "Equalizing exchange: Trade liberalization and income convergence", *Quarterly Journal of Economics*, Vol. 108, 1993.

42 Extending the analysis to a wider range of countries, including some developing countries with which there were close trade links, confirms a positive association between trade and convergence for countries that were already developed in 1960. See D. Ben-David, "Trade and Convergence among

Countries", *CEPR Discussion Paper*, No.1126 (London: Centre for Economic Policy Research, 1995).

43 The idea of factor price equalization is an impeccable - if controversial - legacy of conventional trade theory. A number of attempts have recently been made to defend a fairly traditional rendition of this argument, most notably by A. Wood in his *North-South Trade, Employment and Inequality: Changing Fortunes in a Skill-Driven World* (Oxford: Clarendon Press, 1994). However, most assessments have sacrificed theoretical correctness for a more pragmatic mix of traditional static forces and more dynamic ones; see R. Findlay, "Modelling global interdependence: Centers, peripheries and frontiers", *The American Economic Review*, May 1996.

44 See E. Leamer and J. Levinsohn, "International trade theory: The evidence", in G. Grossman and K. Rogoff (eds.), *Handbook of International Economics*, Vol. III (Amsterdam: Elsevier, 1995).

45 See H. Gremmen, "Testing the factor price equalization theorem in the EC: An alternative approach", *Journal of Common Market Studies*, Vol. 24, 1985; and A. Van Nourik, "Testing the factor price equalization theorem in the EC: A comment", *ibid.,* Vol. 26, 1987.

46 Exchange rate movements have complicated a direct comparison of wage trends in different countries. However, since 1980, when the real manufacturing wage in dollar terms was $15.97 in Germany, $15.64 in the United States, $14.26 in the United Kingdom and $6.76 in Japan, real wages have risen strongly in Germany and Japan (32 per cent and 35 per cent, respectively), risen moderately in the United Kingdom (by 21 per cent) and fallen in the United States (by 5 per cent).

47 S. Davies, "Cross-country patterns of change in relative wages", *NBER Macroeconomics Annual, 1992* (Cambridge, MA, and London: The MIT Press, 1992).

48 E. Paus and M. Robinson, "The implications of increasing openness for real wages in developing countries, 1973-90", *World Development*, Vol.25, No.4, 1997. This is also the conclusion reached for the OECD countries by Dollar *et al., op. cit.*

49 S. Claessens, M. Dooley, and A. Warner, "Portfolio Capital Flows: Hot or Cool?", *World Bank Discussion Paper*, No. 228 (Washington, DC: The World Bank, 1993), p.22.

50 M. Blomstrom *et al.,* in "What explains developing country growth?" *NBER Working Paper,* No.4132 (Cambridge, MA: National Bureau of Economic Research, 1994), do find such a causal link. On the other hand, a study by A. Dutt, "Direct foreign investment, transnational corporations and growth: Some empirical evidence and a North-South model", in R. Kozul-Wright and R. Rowthorn (eds.), *Transnational Corporations and the Global Economy* (London: Macmillan, 1997), finds no evidence of causation.

51 See E. Borensztein *et al.*,"How does foreign direct investment affect economic growth?", *NBER Working Paper* No.5057 (Cambridge, MA: National Bureau of Economic Research, 1995), where the threshold is linked to the level of human capital.

52 See S. Lall, "Industrial strategy and policies on foreign direct investment in East Asia"*, Transnational Corporations*, Vol.4, No. 3, Dec. 1995; B. Aitken *et al*., "Wages and foreign ownership: A comparative study of Mexico, Venezuela and the United States", *Journal of International Economics*, Vol. 40, 1996.

53 This is discussed in greater detail in *TDR 1996,* with reference to South-East Asia. For a discussion of these issues in the context of the information technology industry see P. Evans, *Embedded Autonomy* (Princeton, N.J.: Princeton University Press, 1995).

54 See J. Kregel, "Capital flows : Globalization of production and financing development", *UNCTAD Review*, *1994* (United Nations publication, Sales No. E.94.II.D.19), New York and Geneva, 1994.

55 M. Feldstein, and C. Horioka, "Domestic Savings and International Capital Flows", *Economic Journal*, Vol. 90, No. 2, 1980; see also M. Baxter, and M. Crucini, "Explaining Savings-Investment Correlation", *The American Economic Review*, Vol. 83, No. 3, 1993.

56 See A. Dean, M. Durand, J. Fallon, P. Hoeller, "Saving Trends and Behaviour in OECD Countries," OECD Department of Economics and Statistics, *Working Paper,* No. 67, June 1989, p. 73. This weakening may simply reflect policy coordination failures and the associated trade and fiscal imbalances in some of the major OECD countries rather than the way in which capital resources are allocated internationally.

57 M. Feldstein, "The Effects of Outbound Foreign Direct Investment on the Domestic Capital Stock", *NBER Working Paper*, No. 4668 (Cambridge, MA: National Bureau of Economic Research, March 1994). These results should be interpreted cautiously since they rely on netting the coefficients for outward and inward FDI flows. While the former are statistically significant in most of the regression estimates, the latter generally are not and have frequently been of the wrong sign, which could imply that FDI leads to a decrease in global investment.

58 *Ibid*., p. 16.

59 See G. Epstein, "International Profit Rate Equalization and Investment: An Empirical Analysis of Integration, Instability, and Enforcement", in G. Epstein and H. Gintis (eds.), *Macroeconomic Policy After the Conservative Era* (Cambridge: Cambridge University Press, 1995).

60 *TDR 1987*, Part One, chap. II, sect. B, introductory text.

61 For the evidence on the effect of profits on investment and the effect of unemployment on profits see A. Glyn, "Does Aggregate Profitability *Really* Matter?", to be published in *Cambridge Journal of Economics*, Sept. 1997.