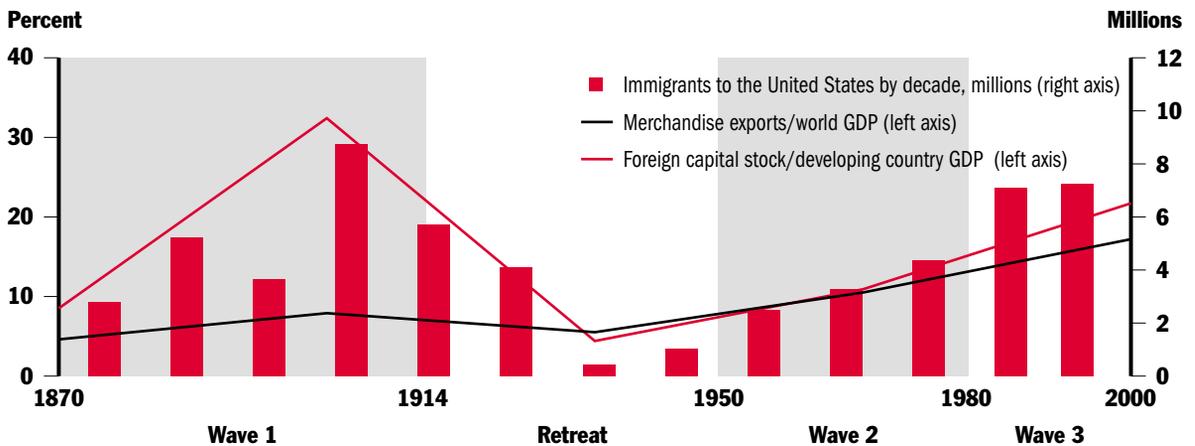


The New Wave of Globalization and Its Economic Effects

SINCE ABOUT 1980 THERE HAS BEEN UNPRECEDENTED global economic integration. Globalization has happened before, but not like this. Economic integration occurs through trade, migration, and capital flows. Figure 1.1 tracks these flows. World trade is measured relative to world income. Capital flows are proxied by the stock of foreign capital in developing countries relative to their GDP. Migration is proxied by the number of immigrants to the United States. Historically, before about 1870 none of these flows was sufficiently large to warrant the term globalization.

Figure 1.1 Three waves of globalization



Source: Foreign capital stock/developing country GDP: Maddison (2001), table 3.3; Merchandise exports/world GDP: Maddison (2001), table F-5; Migration: Immigration and Naturalization Service (1998).

For about 45 years, starting around 1870, all these flows rapidly became substantial, driven by falling transport costs. What had been many separate national economies started to integrate: the world's economies globalized. However, globalization is not an inevitable process; this first wave was reversed by a retreat into nationalism. Between 1914 and 1945 transport costs continued to fall, but trade barriers rose as countries followed beggar-thy-neighbor policies. By the end of that period trade had collapsed back to around its 1870 level. After 1945 governments cooperated to rein in protectionism. As trade barriers came down, and transport costs continued to fall, trade revived. This second wave of globalization, which lasted until around 1980, was approximately a return to the patterns of the first wave.

Since 1980 many developing countries—the “new globalizers”—have broken into world markets for manufactured goods and services. There has been a dramatic rise in the share of manufactures in the exports of developing countries: from about 25 percent in 1980 to more than 80 percent today. There has also been a substantial increase in FDI. This marks an important change: low-income countries are now competing head-on with high-income countries while previously they specialized in primary commodities. During this new wave of global market integration, world trade has grown massively. Markets for merchandise are now much more integrated than ever before.

In this chapter we contrast this new third wave of globalization with the two previous waves. We analyze its main processes and show how it is affecting poverty and inequality.

Previous waves of globalization and reversals

MOST DEVELOPING COUNTRIES HAVE TWO POTENTIAL sources of comparative advantage in international markets: abundant labor and abundant land. Before about 1870 neither of these potentials was realized and international trade was negligible.

The first wave of globalization: 1870–1914

The first wave of global integration, from 1870 to 1914, was triggered by a combination of falling transport costs, such as the switch from sail to steamships, and reductions in tariff barriers, pioneered by an

Anglo-French agreement. Cheaper transport and the lifting of man-made barriers opened up the possibility of using abundant land. New technologies such as railways created huge opportunities for land-intensive commodity exports. The resulting pattern of trade was that land-intensive primary commodities were exchanged for manufactures. Exports as a share of world income nearly doubled to about 8 percent (Maddison 2001).

The production of primary commodities required people. Sixty million migrated from Europe to North America and Australia to work on newly available land. Because land was abundant in the newly settled areas, incomes were high and fairly equal, while the labor exodus from Europe tightened labor markets and raised wages both absolutely and relative to the returns on land. South-South labor flows were also extensive (though less well documented). Lindert and Williamson (2001b) speculate that the flows from densely populated China and India to less densely populated Sri Lanka, Burma, Thailand, the Philippines, and Vietnam were of the same order of magnitude as the movements from Europe to the Americas.¹ That would make the total labor flows during the first wave of globalization nearly 10 percent of the world's population.

The production of primary commodities for export required not just labor but large amounts of capital. As of 1870 the foreign capital stock in developing countries was only about 9 percent of their income (figure 1.1). However, institutions needed for financial markets were copied. These institutions, combined with the improvements in information permitted by the telegraph, enabled governments in developing countries to tap into the major capital markets. Indeed, during this period around half of all British savings were channeled abroad. By 1914 the foreign capital stock of developing countries had risen to 32 percent of their income.

Globally, growth accelerated sharply. Per capita incomes, which had risen by 0.5 percent per year in the previous 50 years, rose by an annual average of 1.3 percent. Did this lead to more or less equality? The countries that participated in it often took off economically, both the exporters of manufactures, people and capital, and the importers. Argentina, Australia, New Zealand, and the United States became among the richest countries in the world by exporting primary commodities while importing people, institutions, and capital. All these countries left the rest of the world behind.

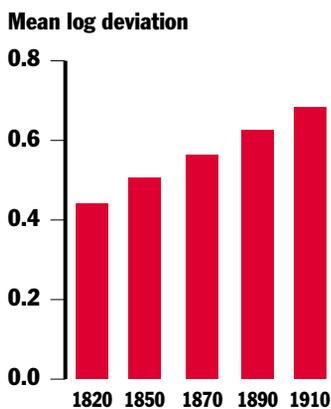
Between the globalizing countries themselves there was convergence. Mass migration was a major force equalizing incomes between them. "Emigration is estimated to have raised Irish wages by 32 percent, Italian

by 28 percent and Norwegian by 10 percent. Immigration is estimated to have lowered Argentine wages by 22 percent, Australian by 15 percent, Canadian by 16 percent and American by 8 percent.” Indeed, migration was probably more important than either trade or capital movements (Lindert and Williamson 2001b).

The impact of globalization on inequality *within* countries depended in part on the ownership of land. Exports from developing countries were land-intensive primary commodities. Within developing countries this benefited predominantly the people who owned the land. Since most were colonies, land ownership itself was subject to the power imbalance inherent in the colonial relationship. Where land ownership was concentrated, as in Latin America, increased trade could be associated with increased inequality. Where land was more equally owned, as in West Africa, the benefits of trade were spread more widely. Conversely, in Europe, the region importing land-intensive goods, globalization ruined landowners. For example, Cannadine (1990) describes the spectacular economic collapse of the English aristocracy between 1880 and 1914. In Europe the first wave of globalization also coincided with the establishment for the first time in history of the great legislative pillars of social protection—free mass education, worker insurance, and pensions (Gray 1998).

Ever since 1820—50 years before globalization—world income inequality as measured by the mean log deviation had started to increase drastically (figure 1.2).² This continued during the first wave of globalization. Despite widening world inequality, the unprecedented increase in growth reduced poverty as never before. In the 50 years before 1870, the incidence of poverty had been virtually constant, falling at the rate of just 0.3 percent per year. During the first globalization wave, the rate of decline more than doubled to 0.8 percent. Even this was insufficient to offset the increase in population growth, so that the absolute number of poor people increased.

Figure 1.2 Worldwide household inequality, 1820–1910



Source: Bourguignon and Morrisson (2001).

The retreat into nationalism: 1914–45

Technology continued to reduce transport costs: during the inter-war years sea freight costs fell by a third. However, trade policy went into reverse.

As Mundell (2000) puts it: “The twentieth century began with a highly efficient international monetary system that was destroyed in World War I,

and its bungled recreation in the inter-war period brought on the great depression.” In turn, governments responded to depression by protectionism: a vain attempt to divert demand into their domestic markets. The United States led the way into the abyss: the Smoot-Hawley tariff, which led to retaliation abroad, was the first: between 1929 and 1933 U.S. imports fell by 30 percent and, significantly, exports fell even more, by almost 40 percent.

Globally, rising protectionism drove international trade back down. By 1950 exports as a share of world income were down to around 5 percent—roughly back to where it had been in 1870. Protectionism had undone 80 years of technical progress in transport.

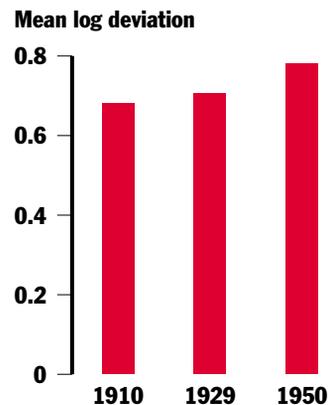
During the retreat into nationalism capital markets fared even worse than merchandise markets. Most high-income countries imposed controls preventing the export of capital, and many developing countries defaulted on their liabilities. By 1950 the foreign capital stock of developing countries was reduced to just 4 percent of income—far below even the modest level of 1870.

Unsurprisingly, the retreat into nationalism produced anti-immigrant sentiment and governments imposed drastic restrictions on newcomers. For example, immigration to the United States declined from 15 million during 1870–1914 to 6 million between 1914 and 1950.

The massive retreat from globalization did not reverse the trend to greater world inequality. By 1950 the world was far less equal than it had been in 1914 (figure 1.3). Average incomes were, however, substantially lower than had the previous trend been maintained: the world rate of growth fell by about a third. The world’s experiment with reversing globalization showed that it was entirely possible but not attractive. The economic historian Angus Maddison summarizes it thus: “Between 1913 and 1950 the world economy grew much more slowly than in 1870–1913, world trade grew much less than world income, and the degree of inequality between regions increased substantially” (Maddison 2001, p. 22).

The combination of a slowdown in growth and a continued increase in inequality sharply reduced the decline in the incidence of poverty—approximately back to what it had been in the period from 1820 to 1870. The decline in the incidence was now well below the rate of population growth, so that the absolute number of poor people increased by about 25 percent. Despite the rise in poverty viewed in terms of income, this was the great period of advances in life expectancy, due to the global

Figure 1.3 Worldwide household inequality, 1910–50



Source: Bourguignon and Morrisson (2001).

spread of improvements in public health. Poverty is multi-dimensional, and not all its aspects are determined by economic performance.

The second wave of globalization: 1945–80

The horrors of the retreat into nationalism gave an impetus to internationalism. The same sentiments that led to the founding of the United Nations persuaded governments to cooperate to reduce the trade barriers they had previously erected. However, trade liberalization was selective both in terms of which countries participated and which products were included. Broadly, by 1980 trade between developed countries in manufactured goods had been substantially freed of barriers, but barriers facing developing countries had been substantially removed only for those primary commodities that did not compete with agriculture in the developed countries. For agriculture and manufactures, developing countries faced severe barriers. Further, most developing countries erected barriers against each other and against developed countries.

The partial reduction in trade barriers was reinforced by continued reductions in transport costs: between 1950 and the late 1970s sea freight charges again fell by a third. Overall, trade doubled relative to world income, approximately recovering the level it had reached during the first wave of globalization. However, the resulting liberalization was very lopsided. For developing countries it restored the North-South pattern of trade—the exchange of manufactures for land-intensive primary commodities—but did not restore the international movements of capital and labor.

By contrast, for rich countries the second wave of globalization was spectacular. The lifting of barriers between them greatly expanded the exchange of manufactures. For the first time international specialization within manufacturing became important, allowing agglomeration and scale economies to be realized. This helped to drive up the incomes of the rich countries relative to the rest.

Economies of agglomeration. The second wave introduced a new type of trade: rich country specialization in manufacturing niches that gained productivity from agglomerated clusters. Most trade between developed countries became determined not by comparative advantage based on differences in factor endowments but by cost savings from agglomeration and scale. Because such cost savings are quite specific to each activity,

although each individual industry became more and more concentrated geographically, industry as a whole remained very widely dispersed to avoid costs of congestion.

Firms cluster together, some producing the same thing and others connected by vertical linkages (Fujita, Krugman, and Venables 1999). Japanese auto companies, for example, are well known for wanting certain of their parts suppliers to locate within a short distance of the main assembly plant. As Sutton (2000) describes it: “Two-thirds of manufacturing output consists of intermediate goods, sold by one firm to another. The presence of a rich network of manufacturing firms provides a positive externality to each firm in the system, allowing it to acquire inputs locally, thus reducing the costs of transport, of coordination, of monitoring and of contracting.”

Clustering enables greater specialization and thus raises productivity. In turn, it depends upon the ability to trade internationally at low cost. The classic statement of this was indeed Adam Smith’s: “The division of labor is limited only by the extent of the market” (*The Wealth of Nations*). Smith argued that a larger market permits a finer division of labor, which in turn facilitates innovation. For example, Sokoloff (1988) shows that as the Erie Canal progressed westward in the first half of the 19th century, patent registrations rose county by county as the canal reached them. This pattern suggests that ideas that were already in people’s heads became economically viable through access to a larger market.

However, while agglomeration economies are good news for those in the clusters, they are bad news for those left out. A region may be uncompetitive simply because not enough firms have chosen to locate there. As a result “a ‘divided world’ may emerge, in which a network of manufacturing firms is clustered in some ‘high wage’ region, while wages in the remaining regions stay low” (Sutton 2000).

Firms will not shift to a new location until the gap in production costs becomes wide enough to compensate for the loss of agglomeration economies. Yet once firms start to relocate, the movement becomes a cascade: as firms re-base to the new location, it starts to benefit from agglomeration economies.

During the second globalization wave most developing countries did not participate in the growth of global manufacturing and services trade. The combination of persistent trade barriers in developed countries, and poor investment climates and anti-trade policies in developing countries, confined them to dependence on primary commodities. Even by

1980 only 25 percent of the merchandise exports of developing countries were manufactured goods.

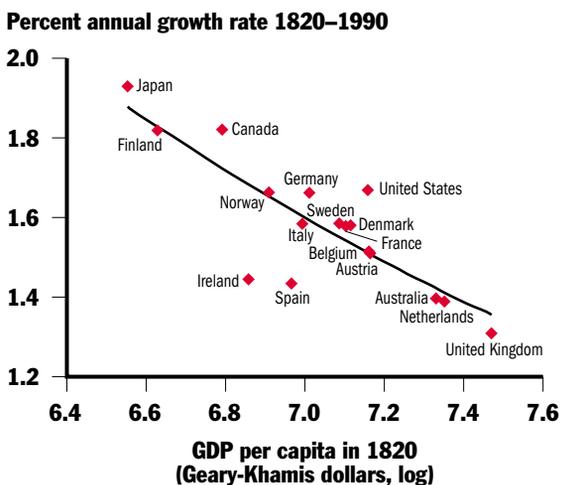
Cascades of relocation did occur during the second wave, but they were to low-wage areas within developed countries. For example, until 1950 the U.S. textile industry was clustered in the high-wage Northeast. The cost pressure for it to relocate built up gradually as northern wages rose and as institutions and infrastructure improved in southern states. Within a short period in the 1950s the whole industry relocated to the Carolinas.

The effect on inequality and poverty. During globalization's second wave there were effectively two trading systems: the old North-South system, and the new intra-North system.

The intra-North system was quite powerfully equalizing: lower-income industrial countries caught up with higher-income ones. Figure 1.4 shows this pattern of long-term convergence among OECD economies.

Second wave globalization coincided with the growth of policies for redistribution and social protection within developed societies. Not only did inequalities reduce between countries—probably an effect of globalization—but inequality was reduced within countries, probably as a result of these social programs. Figure 1.5 shows the dramatic reduction both in between-country and within-country inequality that occurred in developed countries during the period. The second wave

Figure 1.4 Long-term convergence among OECD countries



Source: Maddison (1995).

of globalization was thus spectacularly successful in reducing poverty within the OECD countries. Rapid growth coincided with greater equity, both to an extent without precedent. For the industrial world it is often referred to as the “golden age.”

Second wave globalization was not golden for developing countries. Although per capita income growth recovered from the inter-war slowdown, it was substantially slower than in the rich economies. The number of poor people continued to rise. Non-income dimensions of poverty improved—notably rising life expectancy and rising school enrollments. In terms of equity, within developing countries in aggregate there was little change either between countries or within them (figure 1.6). As a group, developing countries were being left behind by developed countries.

World inequality was thus the sum of three components: greater equity within developed countries, greater inequality between developed and developing countries, and little net change in developing countries. The net effect of these three very different components was broadly no change. World inequality was about the same in the late 1970s as it had been a quarter of a century earlier (figure 1.7).

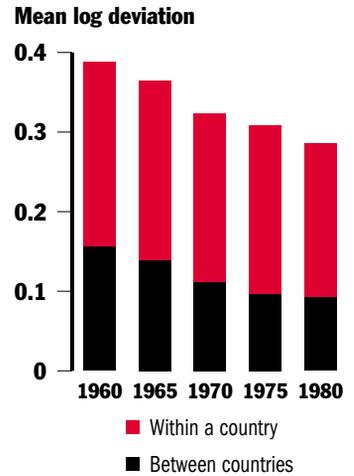
The new wave of globalization

THE NEW WAVE OF GLOBALIZATION, WHICH BEGAN ABOUT 1980, is distinctive. First, and most spectacularly, a large group of developing countries broke into global markets. Second, other developing countries became increasingly marginalized in the world economy and suffered declining incomes and rising poverty. Third, international migration and capital movements, which were negligible during second wave globalization, have again become substantial. We take these features of the new global economy in turn.

The changing structure of trade: the rise of the new globalizers

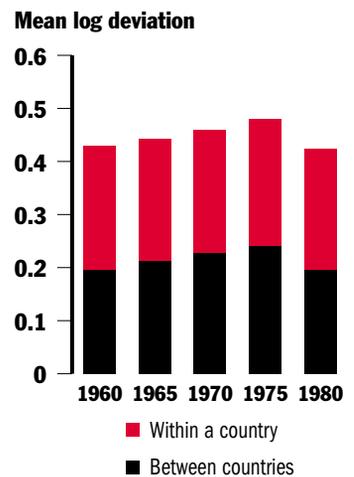
The most encouraging development in third wave globalization is that some developing countries, accounting for about 3 billion people, have succeeded for the first time in harnessing their labor abundance to give them a competitive advantage in labor-intensive manufactures and

Figure 1.5 Household inequality in rich countries, 1960–80



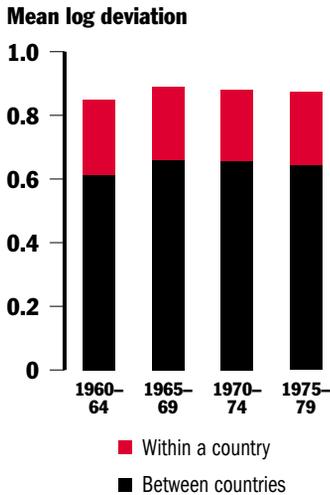
Source: Clark, Dollar, and Kraay (2001).

Figure 1.6 Household inequality in the developing world, 1960–80



Source: Clark, Dollar, and Kraay (2001).

Figure 1.7 Worldwide household inequality, 1960–79



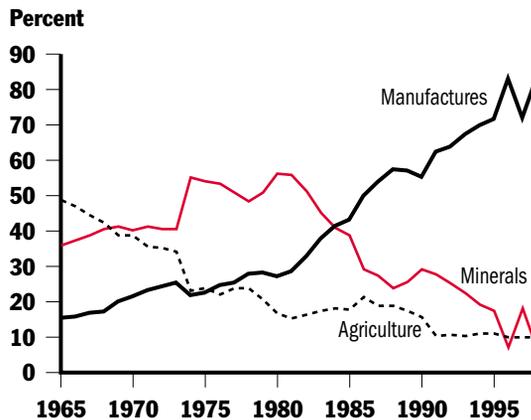
Source: Clark, Dollar, and Kraay (2001).

services. In 1980 only 25 percent of the exports of developing countries were manufactures; by 1998 this had risen to 80 percent (figure 1.8). Davis and Weinstein (forthcoming) show that developing country exports are indeed now labor-intensive.

This is an astonishing transformation over a very short period. The developing countries that have shifted into manufactures trade are quite diverse. Relatively low-income countries such as China, Bangladesh, and Sri Lanka have manufactures shares in their exports that are above the world average of 81 percent. Others, such as India, Turkey, Morocco, and Indonesia, have shares that are nearly as high as the world average. Another important change in the pattern of developing country exports has been their substantial increase in exports of services. In the early 1980s, commercial services made up 17 percent of the exports of rich countries but only 9 percent of the exports of developing countries. During the third wave of globalization the share of services in rich country exports increased slightly—to 20 percent—but for developing countries the share almost doubled to 17 percent.

What accounted for this shift? Partly it was changing economic policy. Tariffs on manufactured goods in developed countries continued to decline, and many developing countries undertook major trade liberalizations. At the same time many countries liberalized barriers to foreign investment and improved other aspects of their investment climate. Partly it was due to continuing technical progress in transport

Figure 1.8 Shares in merchandise exports in developing country exports

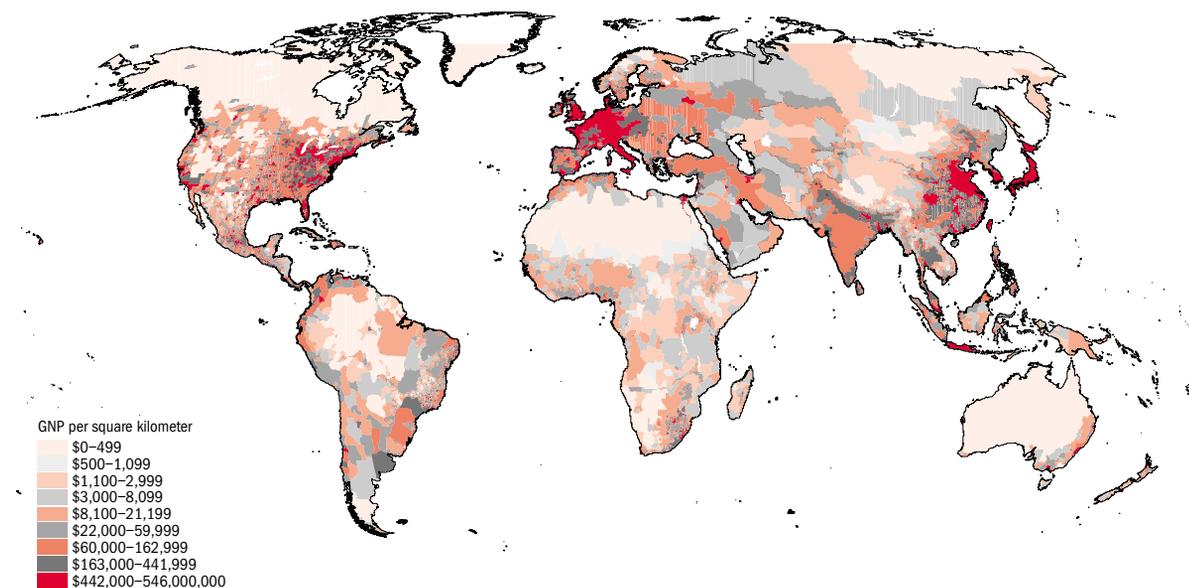


Source: Martin (2001).

and communications (Venables 2001). Containerization and airfreight brought a considerable speeding up of shipping, allowing countries to participate in international production networks. New information and communications technologies mean it is easier to manage and control geographically dispersed supply chains. And information based activities are “weightless” so their inputs and outputs (digitized information) can be shipped at virtually no cost.

Some analysts have suggested that new technologies lead to the “death of distance” (Cairncross 1997) undermining the advantage of agglomeration. This is likely true in a few activities, while for other activities distance seems to be becoming even more important—for example, the proximity requirements of “just-in time” technologies. The OECD agglomerations continue to have massive cost advantages and technological change may even be increasing these advantages. Even within well-located countries there will be clustering as long as agglomeration economies are important, and hence wage pressure to migrate to towns and cities. For example, within the United States, which has similar institutions across the country, there has been a clear trend for economic activity and labor to migrate away from the center of the country. One hundred years ago the Mississippi River and the Great Lakes provided reasonably good transport links. But recent increases in the scale of ocean-going ships and related declines in ocean shipping rates have increased the competitiveness of U.S. coastal locations compared to the center. It is cheaper to ship iron ore from Australia to Japan than the much shorter distance across the Great Lakes from Minnesota to the steel mills of Illinois and Indiana. For large countries such as China and India we can expect to see more migration toward coastal areas as development proceeds.

By the end of the millennium economic activity was highly concentrated geographically (map 1.1). This reflects differences in policies across countries, natural geographic advantages and disadvantages, and agglomeration and scale economy effects. As the map shows, Africa has a very low output density and this is unlikely to change through a uniform expansion of production in every location. Africa has the potential to develop a number of successful manufacturing/service agglomerations, but if its development is like that of any other large region, there will be several such locations around the continent and a need for labor to migrate to those places. Africa is much less densely populated than Europe, and the importance of migration to create agglomerations is therefore greater.

Map 1.1 GNP density

Source: Sachs, Mellinger, and Gallup (2001).

However, most countries are not just victims of their location. The newly globalizing developing countries helped their firms to break into industrial markets by improving the complementary infrastructure, skills and institutions that modern production needs. So, to some extent those developing countries that broke into world markets just happened to be well located, and to some extent they shaped events by their own actions. To get some understanding of this distinction it is useful to look at the characteristics of the post-1980 developing globalizers. We rank developing countries by the extent to which they increased trade relative to income over the period, and compare the top third with the remaining two-thirds. The one-third/two-thirds distinction is of course arbitrary. We label the top third “more globalized” without in any sense implying that they adopted pro-trade policies.³ The rise in trade may have been due to other policies or even to pure chance. By construction, the “more globalized” had a large increase in trade relative to income: 104 percent, compared to 71 percent for the rich countries. The remaining two-thirds of developing countries have actually had a decline in trade to GDP over this period. The variation in export performance is illustrated in figure 1.9.

The more globalized were not drawn from the higher-income developing countries. Indeed, in 1980 they were poorer as a group.⁴ The two groups had very similar educational attainment in 1980 (table 1.1). Since 1980, the more globalized have made very significant gains in basic education: the average years of primary schooling for adults increased from 2.4 years to 3.8 years. The less globalized made less progress and now lag behind in primary attainment. The spread of basic education tends to reduce inequality and raise health standards, as well as being complementary to the process of raising productivity. It can also be seen in table 1.1 that both groups reduced inflation to single digits over the past two decades. Finally, as of 1997 the more globalized fared moderately better on an index of property rights and the rule of law.⁵ The same measure is not available for 1980, but clearly countries such as China and Hungary have strengthened property rights as they have reformed.

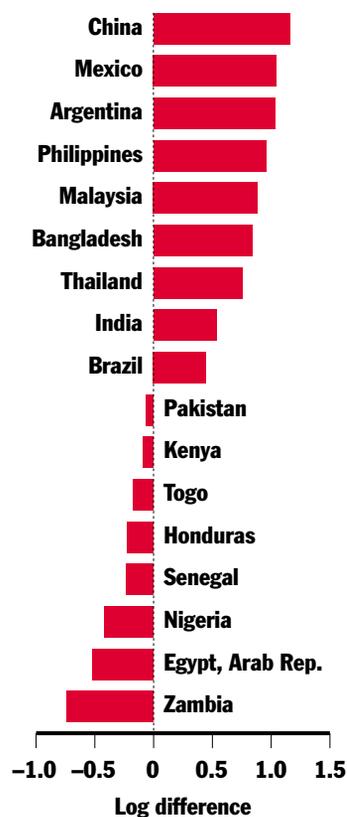
During third wave globalization, the new globalizers also cut import tariffs significantly, 34 points on average, compared to 11 points for the countries that are less globalized (figure 1.10). However, policy change was not exclusively or even primarily focused on trade. The list of post-1980 globalizers includes such well-known reformers as Argentina,

Table 1.1 Characteristics of more globalized and less globalized developing economies
(population-weighted averages)

Socioeconomic characteristics	More globalized (24)	Less globalized (49)
Population, 1997 (billions)	2.9	1.1
Per capita GDP, 1980	\$1,488	\$1,947
Per capita GDP, 1997	\$2,485	\$2,133
Inflation, 1980 (percent)	16	17
Inflation, 1997 (percent)	6	9
Rule of law index, 1997 (world average = 0)	-0.04	-0.48
Average years primary schooling, 1980	2.4	2.5
Average years primary schooling, 1997	3.8	3.1
Average years secondary schooling, 1980	0.8	0.7
Average years secondary schooling, 1997	1.3	1.3
Average years tertiary schooling, 1980	0.08	0.09
Average years tertiary schooling, 1997	0.18	0.22

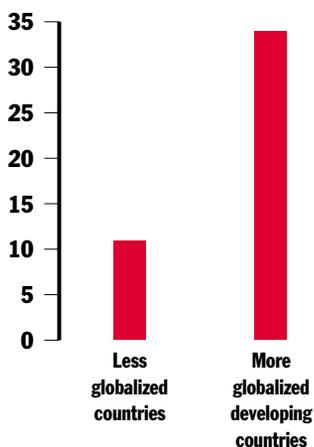
Source: Dollar (2001).

Figure 1.9 Change in trade/GDP for selected countries, 1977–97



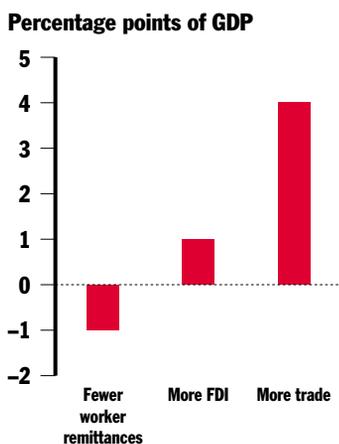
Source: World Bank (2001d).

Figure 1.10 Decline in average import tariffs, mid-1980s to late-1990s



Source: Dollar and Kraay (2001b).

Figure 1.11 Results from a better rule of law



Source: Dollar and Zoido-Lobaton (2001).

China, Hungary, India, Malaysia, Mexico, the Philippines, and Thailand, which undertook reforms involving investment liberalization, stabilization, and property rights. The outcome of increased integration into the world economy need not be due to changes in trade policy. Dollar and Zoido-Lobaton (2001) find that reliable property rights, strong rule of law, and macroeconomic stability are all associated with more trade and FDI. A one standard deviation increase on an index of the rule of law (roughly the difference between Kenya and Uganda) is associated with 4 percentage points of GDP more in trade and 1 percentage point more FDI (figure 1.11). They also find that it is associated with lower emigration.

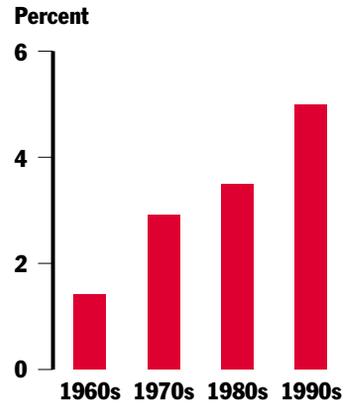
As they reformed and integrated with the world market, the “more globalized” developing countries started to grow rapidly, accelerating steadily from 2.9 percent in the 1970s to 5 percent through the 1990s (figure 1.12). They found themselves in a virtuous circle of rising growth and rising penetration of world markets. It seems likely that growth and trade reinforced each other, and that the policies of educational expansion, reduced trade barriers, and strategic sectoral reforms reinforced both growth and trade.

Whether there is a causal connection from opening up trade to faster growth is not the issue. In those low-income countries that have broken into global markets, more restricted access to those markets would be damaging to growth, regardless of whether industrialization was triggered by opening up. However, opening up integrates an economy into a larger market, and from Adam Smith on economists have suggested that the size of the market matters for growth. A larger market gives access to more ideas, allows for investment in large fixed-cost investments and enables a finer division of labor. A larger market also widens choice. Wider choice for high-income consumers is irrelevant for poverty reduction, but wider choice may have mattered more for firms than for consumers. For example, as India liberalized trade, companies were able to purchase better-quality machine tools. Similar effects have been found for the Chinese import liberalization. Finally, a larger market intensifies competition and this can spur innovation. There is some evidence that integration with the world economy is more important for small and poor economies than it is for large economies like India and China (Sachs and Warner 1995; Collier and Gunning 1999).

There is also a large amount of cross-country regression evidence on openness and growth (see box 1.1). This should be treated with caution but not dismissed altogether. Lindert and Williamson (2001a) summarize it:

The doubts that one can retain about each individual study threaten to block our view of the overall forest of evidence. Even though no one study can establish that openness to trade has unambiguously helped the representative Third World economy, the preponderance of evidence supports this conclusion. One way to see the whole forest more clearly is to consider two sets, one almost empty and one completely empty. The almost-empty set consists of all statistical studies showing that protection has helped Third World economic growth, and liberalization has harmed it. The second, and this time empty, set contains those countries that chose to be less open to trade and factor flows in the 1990s than in the 1960s and rose in the global living-standard ranks at the same time. As far as we can tell, there are no anti-global victories to report for the postwar Third World. We infer that this is because freer trade stimulates growth in Third World economies today, regardless of its effects before 1940. (pp. 29–30)

Figure 1.12 Per capita GDP growth rates: more globalized developing countries



Source: Dollar and Kraay (2001b).

Box 1.1 Openness and growth: Regression evidence

IT IS DIFFICULT TO ESTABLISH A LINK BETWEEN openness and growth in a rigorous manner. The specific trade liberalization actions that are important often include non-tariff measures such as eliminating licensing schemes or allowing access to foreign exchange for current account transactions, and it is difficult to quantify these policies. Further, countries tend to pursue a broad package of reforms at the same time so that identifying the separate effect of one reform may not be possible. Recognizing these limitations, what does the cross-country literature find? Sachs and Warner (1995) claim that liberal trade policies cause growth. They develop a measure of openness based on tariff rates for capital equipment, the extent of non-tariff barriers, and the degree of distortion in the foreign exchange market (proxied by the parallel market premium). Dollar (1992) creates

an index of the price level adjusted for factor endowments, arguing that high prices for tradable goods reflect high levels of import protection, and finds a significant effect on growth. Both measures have been criticized (by Rodriguez and Rodrik 1999, among others) on the grounds that they are more a measure of good institutions and policies in general than of trade policy narrowly defined. This points up an important identification problem: the countries with more open trade and investment policies tend to be ones with more reliable property rights and better economic institutions more generally. Frankel and Romer (1999) find that openness as measured by the share of trade in income is robustly related to long-term growth. They are able to rule out the possibility of reverse causation from growth to trade by “instrumenting” for trade with geography variables.

(box continues on following page)

Box 1.1 continued

While this is supportive of models in which access to markets accelerates growth, there is no easy way to rule out the possibility that geography matters for growth through other channels. A different approach to measuring openness is taken by Ades and Glaeser (1999) in their study of 19th century America. They focus on openness in the sense of access to seaports and rail services, and find that backward, open regions tend to grow fast and converge on more advanced regions. Specifically, they interact their openness measure with the initial level of development and find that the combination of openness and backwardness

is associated with especially rapid development. Finally, there are some recent studies that focus on changes in growth rates and changes in trade and FDI. This approach has the advantage that all of the variables that do not change over time drop out of the analysis (geography, ethnolinguistic fractionalization, institutional measures that show no time variation), reducing the multicollinearity problems. Dollar and Kraay (2001b) show that both increased trade and increased FDI are related to accelerated growth. They control for changes in other policies and address reverse causation with internal instruments.

To conclude, since 1980 the global integration of markets in merchandise has enabled those developing countries with reasonable locations, policies, institutions, and infrastructure to harness their abundant labor to give themselves a competitive advantage in some manufactures and services. The initial advantage provided by cheap labor has sometimes triggered a virtuous circle of other benefits from trade. For example, when Bangalore initially broke into the world software market, it did so by harnessing its comparative advantage in cheap, educated labor. As more firms gravitated to the city it began to reap economies of agglomeration. The increased export earnings financed more imports, thereby both intensifying competition and widening choice. There is some evidence that between them these four effects of trade raise not only the level of real income, but also its rate of growth. However, the growth process is complex. Trade is certainly not sufficient for growth.

Marginalization: Why has the experience of many poor countries been the opposite of the globalizers?

Countries with total populations of around 2 billion people have not integrated strongly into the global industrial economy. They include most of Africa and many of the economies of the FSU. These countries often

suffered deteriorating and volatile terms of trade in the markets for their primary commodity exports. In aggregate their per capita income actually declined during the third wave. Why did these countries diverge so drastically from the globalizers? Can they belatedly emulate the globalizers in harnessing their comparative advantage in abundant labor, thereby diversifying their exports toward services and manufactures? There are three views:

The “Join the Club” view. This view argues that weak globalizers have failed to harness their comparative advantage in abundant labor because of poor economic policies. If, for example, infrastructure is poor, education is inadequate, corruption is rampant, and trade barriers are high, then the cost advantage from abundant labor might be more than offset by these disadvantages. According to this view, as and when policies, institutions, and infrastructure are improved, then countries will integrate into world markets for manufactures and services.

The “Geographic Disadvantage” view. This view argues that many of the countries that have failed to enter global manufacturing markets suffer from fundamental disadvantages of location. Even with good policies, institutions, and infrastructure, a landlocked, malaria-infested country simply will not be competitive in manufacturing or in services such as tourism. It is sometimes argued that it is precisely because the benefits of good policies, institutions, and infrastructure in such environments are so modest that they are not reformed.

For many developing countries, transport costs to OECD markets are higher than the tariffs on their goods, so that transport costs are even more of a barrier to integration than the trade policies of rich countries. Sometimes the explanation for high transport costs is indeed adverse geography. But transport costs are also heavily influenced by the quality of infrastructure as implied by the “Join the Club” view. Limão and Venables (2000) find that “African economies tend to trade less with the rest of the world and with themselves than would be predicted by a simple gravity model, and the reason for that is their poor infrastructure” (p. 25). That includes inefficient seaports, but even more importantly the internal infrastructure of roads, rail, and telecommunications. Collier and Gunning (1999, pp. 71–72) document these infrastructure deficiencies in Africa:

There is less infrastructure than elsewhere. For example, the density of the rural road network is only 55 kilometers per thousand

square kilometers, compared to over 800 in India, and there are only one-tenth the telephones per capita of Asia. The quality of infrastructure is also lower. The telephone system has triple the level of faults to Asia's and the proportion of diesel trains in use is 40 percent lower. Prices of infrastructure use are much higher. Freight rates by rail are on average around double those in Asia. Port charges are higher (for example, a container costs \$200 in Abidjan as opposed to \$120 in Antwerp). Air transportation is four times more costly than in East Asia. Much of international transport is cartelized, reflecting the regulations of African governments intended to promote national shipping companies and airlines. As a result of these high costs, by 1991 freight and insurance payments on trade amounted to 15 percent of export earnings, whereas the average for developing countries is only 6 percent. Further, the trend has been rising for Africa whereas it has been falling elsewhere: the comparable figures for 1970 were 11 percent and 8 percent.

Thus, many of the weak globalizers have high transport costs to world markets partly due to intrinsically poor location and partly due to bad infrastructure. As a result they will have low wages, and even when trade is free of barriers it will not bring those wages into line with wages in more favored locations.

The "Missed the Boat" view. This view accepts the argument of the "Join the Club" view that, if any of these countries had had good policies it would have broken into world manufacturing and services, but it further argues that most of them have now missed the boat. World demand for manufactures is limited by world income, and because of agglomeration economies firms will locate in clusters. Although there is room for many clusters, firms already have satisfactory locations in labor-abundant countries and so the latecomers have nothing to offer.

Who's right?

Most plausibly, each view is right to some extent. It seems highly likely that there will be room for some new entrants to the market for global manufactures and services, and some well-located cities in countries that

reform their policies, institutions, and infrastructure will surely develop successful clusters. Equally, it seems plausible that if all countries reformed, there would be more well-located sites than new clusters, so some would indeed have missed the boat. Finally, some countries are indeed badly located and will simply not industrialize. Such countries might become competitive in international services, but at present markets in services are far less integrated than markets in merchandise. This is partly because until very recently trade negotiations have focused on reducing barriers to merchandise trade.

Regardless of whether the disadvantages faced by the weak globalizers were intrinsic or could have been altered by better policy, their growth rates were even lower during third wave globalization than during the second wave. One reason is that many countries dependent on primary commodities suffered declining prices for their exports. This was probably related to the slowdown in growth in developed countries. Could globalization itself have contributed to the economic marginalization of some countries? One way it might have adversely affected the weak globalizers is through the growth of international capital markets. Most marginalized countries integrated into world capital markets not through attracting capital inflows but through capital flight. By 1990 Africa, the region where capital is most scarce, had about 40 percent of its private wealth held outside the continent, a higher proportion than any other region. This integration was not a policy choice: most African governments erected capital controls, but they were ineffective. The main drivers of capital flight have been exchange rate misalignment, poor risk-ratings, and high indebtedness (Collier, Hoeffler, and Patillo 2001). However, capital flight was probably eased by the growth of international banking, some of it offshore, with poor practices of disclosure. A second way that globalization may have affected the weak globalizers adversely is through a rising risk of civil war. The incidence of civil war has declined sharply in the globalizing developing regions, but has risen sharply in Africa. Dependence on primary commodity exports is a powerful risk factor in civil conflict, probably because it provides easy sources of finance for rebel groups. Whereas most regions have diversified their exports, Africa has remained heavily dependent on primary commodities. Furthermore, conflicts tend to last longer: the chances of reaching peace are much lower during third wave globalization than during the second wave.

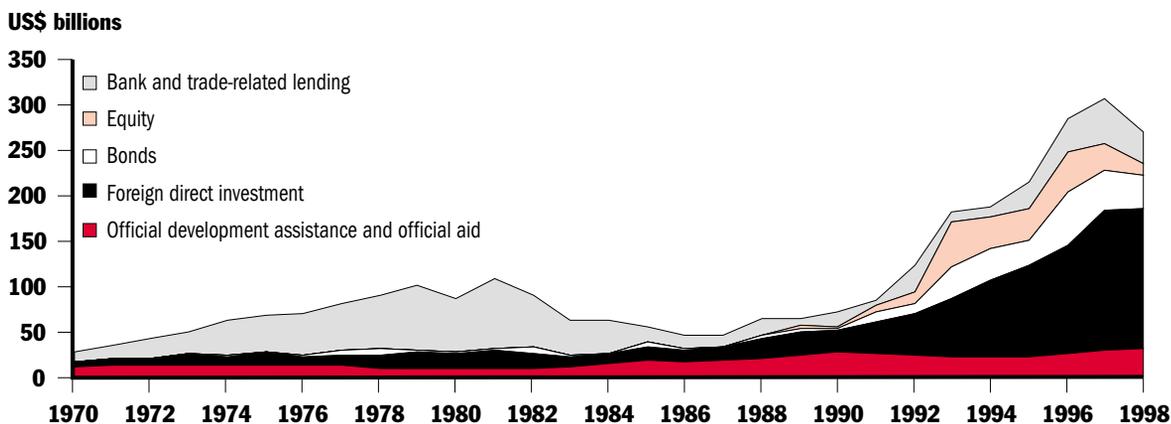
The re-emergence of international capital flows

Controls on capital outflows from high-income countries were gradually lifted: for example, the United Kingdom removed capital controls in 1979. Governments in developing countries have also gradually adopted less hostile policies toward investors. Partly as a result of these policy changes and partly due to the oil shock of the 1970s, significant amounts of private capital again began to flow to developing countries.

Total capital flows to developing countries went from less than \$28 billion in the 1970s to about \$306 billion in 1997, in real terms (figure 1.13), when they peaked. In the process, their composition changed significantly. The importance of official flows of aid more than halved, while private capital flows became the major source of capital for a number of emerging economies. The composition of private capital flows also changed markedly. FDI grew continuously throughout the 1990s. Mergers and acquisitions were the most important source of this increase, especially those resulting from the privatization of public companies. Net portfolio flows grew from \$0.01 billion in 1970 to \$103 billion in 1996, in real terms. New international mutual funds and pension funds helped to channel the equity flows to developing countries. The importance of syndicated bank loans and other private flows decreased steadily in relative terms throughout this period, especially after the debt crises of the 1980s.

Even though net private capital flows to developing countries increased during the third wave of globalization, by one measure they remained

Figure 1.13 Net capital flows to developing countries by type of flow, 1970–98



Source: Schmukler and Zoido-Lobaton (2001).

more modest than during the first wave. By 1998 the foreign capital stock was 22 percent of developing country GDP, roughly double what it had been in the mid-1970s but still well below the 32 percent reached in 1914 (Maddison 2001). Some countries receive large inflows, while other countries receive little. The top 12 emerging markets are receiving the overwhelming majority of the net inflows—countries such as Argentina, Brazil, China, India, Malaysia, Mexico, and Thailand. Much the most successful developing countries in attracting FDI were Malaysia and Chile, both with stocks of FDI of about \$2,000 per capita.

FDI brings not just capital, but also advanced technology and access to international markets. It is critical for participating in international production networks. Dollar and Kraay (2001b) find that FDI has a powerful growth effect, whereas the overall level of investment by itself does not have a significant effect on growth—other factors are more important.

Capital flows to developing countries are just a tiny proportion of the global capital market. Because capital owners are concerned about risk, most global capital flows are between developed countries rather than from developed to developing countries. Even Malaysia and Chile have less FDI per capita than any of the major developed economies. FDI per capita in the United States is more than \$3,200 per capita, while in Africa it is only \$124 (Maddison 2001). This is despite the fact that differences in capital per member of the labor force between developed and developing countries are now far larger than they were during the first wave of globalization. World capital markets could clearly do more to raise growth in low-income countries. As we discuss in Chapter 3, there is evidence of systematic bias against Africa.

Migration pressures are building

The massive gaps in income that had built up by the end of globalization's second wave created intense economic pressures for people to migrate out of poor areas—both rural-urban migration within countries and international migration. These pressures were largely frustrated by immigration controls, but in some rich countries controls were somewhat relaxed during the third wave, with powerful effects on wages in poor countries.

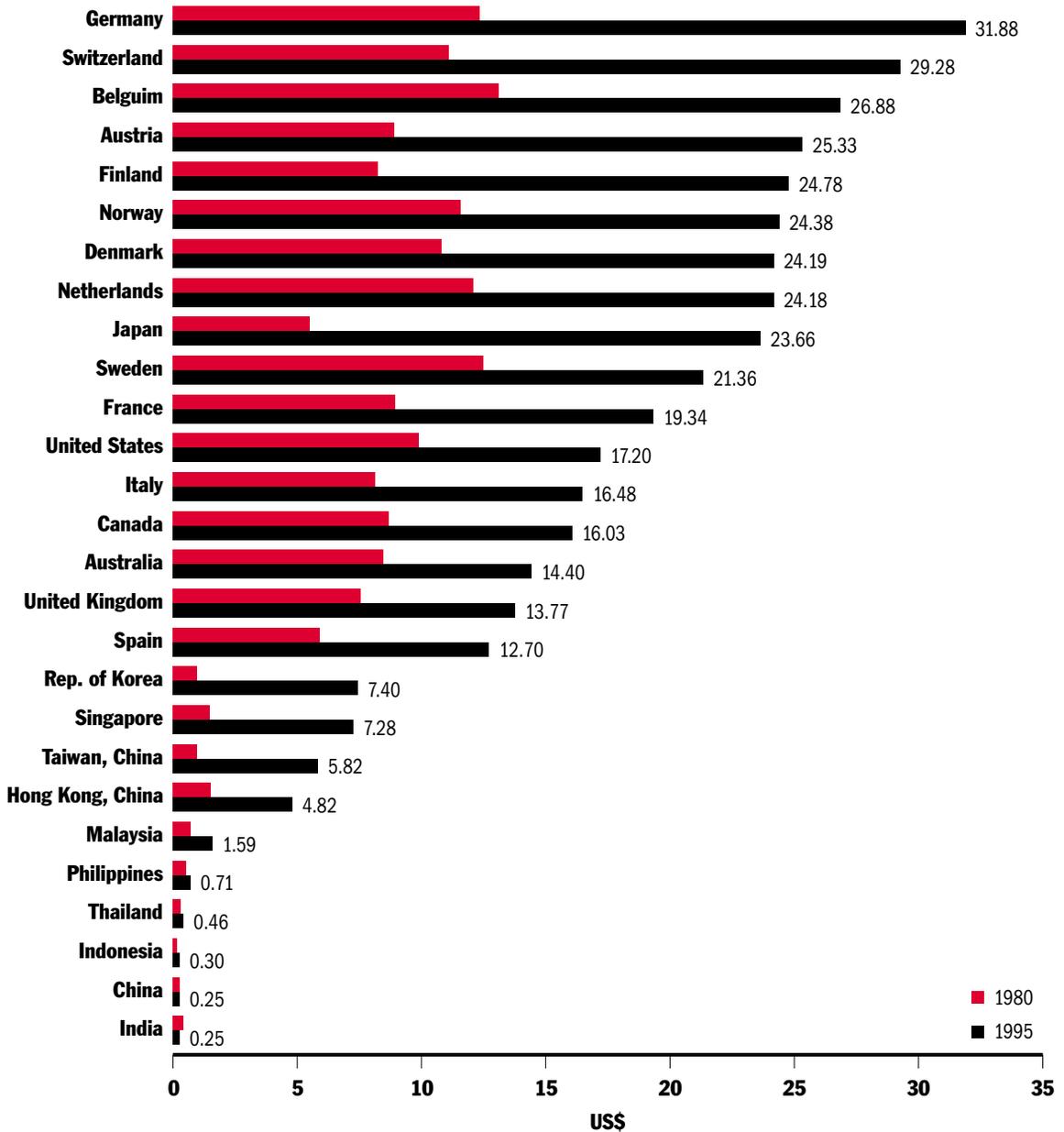
Recall that in the first great wave of modern globalization, from 1870 to 1910, about 10 percent of the world's population relocated permanently. Much of this flow was driven by economic considerations, the

desire to find a better life in a more favorable location. The same forces operate today, though policies toward international migration are much more restrictive than in the past. About 120 million people (2 percent of the world's population) live in foreign countries (that is, not in the country of their citizenship). Roughly half of this stock of migrants is in the industrial countries and half in the developing world. However, because the population of developing countries is about five times greater than the population of the developed countries, migrants comprise a larger share of the population in rich countries (about 6 percent) than in poor countries (about 1 percent).

The main economic rationale for migration is that wages for the same skills differ vastly in different locations, especially between developing countries and rich ones. The average hourly labor compensation in manufacturing is about \$30 per hour in Germany, and one one-hundredth of that level (30 cents) in China and India (figure 1.14). That gap is particularly extreme, but even between the United States and newly industrialized countries such as Thailand or Malaysia the compensation gap is ten-fold. Now, some of that difference results from the fact that the typical German worker has quite a bit more education and training than the typical Chinese or Indian. However, skill differences can only explain a small amount of the wage differential. A study following individual, legal immigrants found that on average they left jobs in Mexico paying \$31 per week and on arrival in the United States could immediately earn \$278 per week (a nine-fold increase). Similarly, Indonesian workers in Indonesia earn 28 cents per day, compared to \$2 per day or more in next-door Malaysia. Clearly there are huge real gains to individual workers who migrate to more developed economies.

These large wage differentials across countries lead to mounting migration pressures, although the actual scale of migration depends upon the entry restrictions that migrants face. Hatton and Williamson (2001) study emigration from Africa. They find that both widening wage differentials and a demographic bulge of 15–29-year-olds are producing large and growing economic pressure for migration, although so far much of this has been bottled up by entry restrictions. Emigration from Mexico has been less restricted. There are about 7 million legal Mexican migrants living in the United States, and an additional estimated 3 million undocumented workers. This means that about 10

Figure 1.14 Hourly labor costs in manufacturing



Source: Stalker (2000).

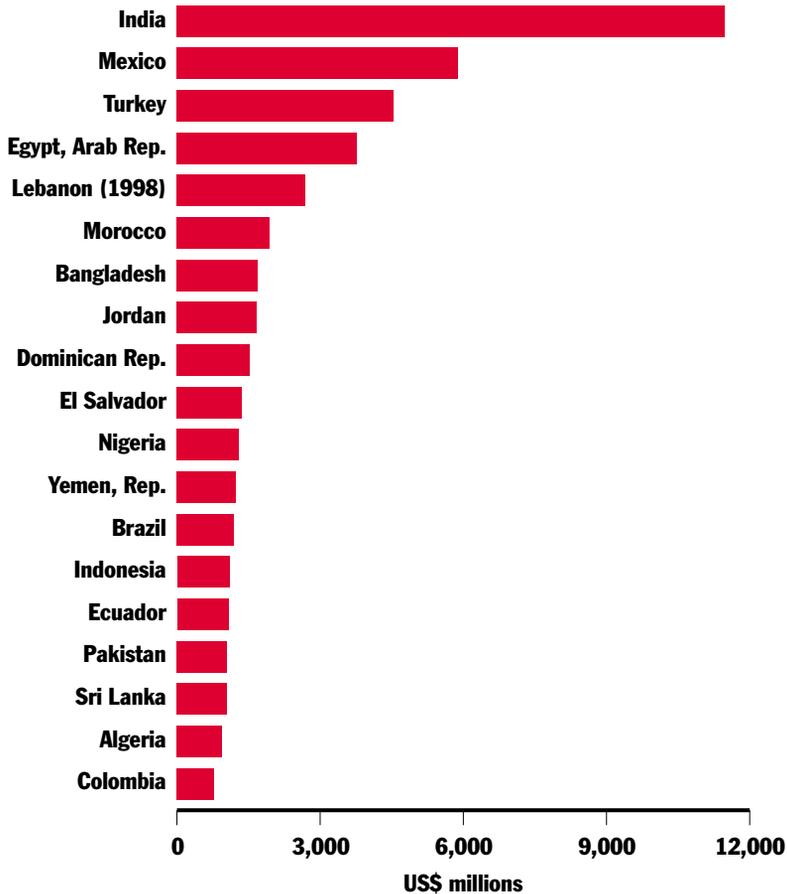
percent of Mexico's population is living and working in the United States. Emigration on this scale has a significant effect on developing country labor markets. Hatton and Williamson estimate the effect of out-migration from Africa on the wages of those who remain behind. They find that emigration powerfully raises the wages of remaining unskilled workers. It is likely that emigration from Mexico has substantially raised Mexican wages.

The benefits of migration to the sending region go beyond the higher wages for those who remain behind. Migrants send a large volume of remittances back to relatives and this is an important source of capital inflows (figure 1.15). India receives six times as much in remittances from its workers overseas every year as it gets in foreign aid.

Further, much trade and investment depends on personal and family networks. To take a significant historical example, a large number of Chinese have emigrated from China to other Asian countries (especially Thailand, Malaysia, Indonesia, and Singapore). The Chinese family networks play a significant role in trade and investment between these countries and China. It is inherently difficult to study and quantify this phenomenon, but there is more general evidence that language plays a large role in explaining trade and investment flows, and it makes sense that the stronger tie of family and kinship would have an even greater effect. The point here is that migration can facilitate the other flows of globalization—trade, capital, and ideas. Take, for example, the recent surge in Indian immigration to the United States. It happens that this immigration is particularly related to the high-tech sectors. It will support greater flows of technology and information between the United States and India, and also encourage more U.S. investment in India. Some successful Indian entrepreneurs in the United States may themselves open plants back in their home country, or U.S. companies may hire Indian engineers to work in India. And because much of manufacturing and services trade is associated with these kinds of networks, trade between the two countries is likely to increase.

What have been the effects of third wave globalization on income distribution and poverty?

The breakthrough of developing countries into global markets for manufactures and services, and the re-emergence of migration and capital flows,

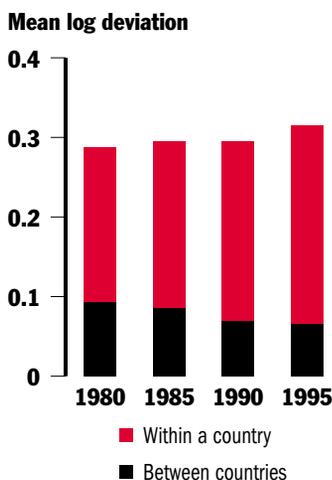
Figure 1.15 Workers' remittances, 1999

Source: World Bank (2001d).

have affected poverty and the distribution of income between and within countries. Domestic policy choices unrelated to globalization also affect income distribution.

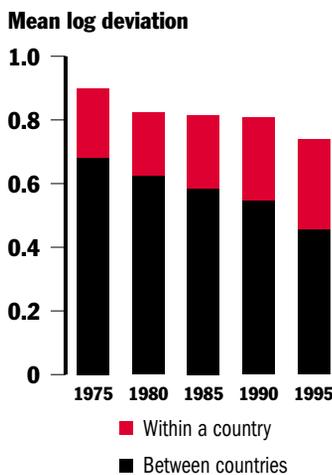
Among developed countries globalization has continued to generate the convergence of the first and second waves. By 1995 inequality between countries was less than half what it had been in 1960 and substantially less than it had been in 1980. However, as figure 1.16 shows, there was a serious offsetting increase in inequality within individual countries, reversing the trend seen during the second wave. A part of this may have been due to immigration. However, it may also have been

Figure 1.16 Household inequality in rich countries, 1980–95



Source: Clark, Dollar, and Kraay (2001).

Figure 1.17 Household inequality in the globalizing world, 1975–95



Source: Clark, Dollar, and Kraay (2001).

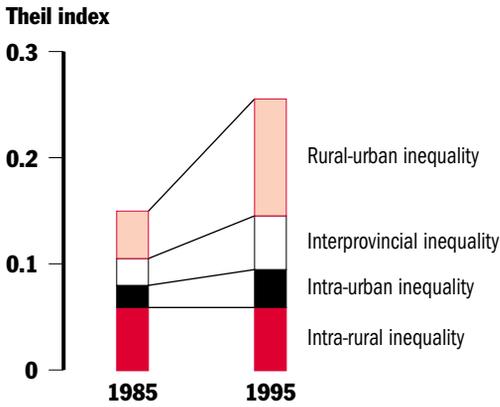
due to policy changes on taxation and social spending unconnected to globalization. Global economic integration is consistent with wide differences in domestic distributional policies: inequality differs massively between equally globalized economies. For the OECD economies taken as a whole, globalization has probably been equalizing as inequality between countries has radically decreased.

Among the new globalizers the same pattern of convergence has been evident as has occurred among the OECD economies over a longer period. Sachs and Warner (1995) find that this is indeed a general phenomenon among open economies. Treating the OECD and the new globalizers as a common group of integrated economies, overall inequality has declined (figure 1.17).

As in the OECD countries, within-country inequality has increased in the new globalizers. However, this is entirely due to the rise in inequality in China, which alone accounts for one-third of the population of the new globalizers. China started its modernization with an extremely equal distribution of income and extremely high poverty. Intra-rural inequality in China has actually decreased. The big growth in inequality has been between the rural areas and the rising urban agglomerations (figure 1.18), and between those provinces with agglomerations and those without them.

A closer investigation of the changes in inequality within countries is provided in Dollar and Kraay (2001a) and Ravallion (forthcoming). There are substantial difficulties in comparing income distribution data across countries. Countries differ in the concept measured (income versus consumption), the measure of income (gross versus net), the unit of observation (individuals versus households), and the coverage of the survey (national versus subnational). Dollar and Kraay restrict attention to distribution data based on nationally representative sources identified as high-quality by Deininger and Squire (1996), and perform some simple adjustments to control for differences in the types of surveys. These data cover a total of 137 countries. They focus on what has happened to the income of the poorest 20 percent of the population. They find that on average there is a one-to-one relationship between the growth rate of income of the poor and the growth rate of average income in society. However, there is much variation around that average relationship. They then investigate whether changes in trade account for any of this variation. They find no relationship between changes in openness and changes in

Figure 1.18 Increased inequality in China reflecting growing inequality among locations



Source: Nehru (1997).

inequality, whether openness is measured by the share of trade in income, the Sachs-Warner measure of openness, average tariff rates, or capital controls. Ravallion qualifies this result. He finds that although *on average* openness does not affect inequality, in low-income countries it is associated with greater inequality. Regardless of its net effect, there are winners and losers from trade policies.

The combination of rapid growth with no systematic change in inequality has dramatically reduced absolute poverty in the new globalizing countries. Between 1993 and 1998 (the most recent period for which we have data) the number of people in absolute poverty declined by 14 percent to 762 million. For them, the third wave of globalization is indeed the golden age. Poverty is predominantly rural. As the new globalizers have broken into world markets their pace of industrialization and urbanization has increased. People have taken the opportunity to migrate from risky and impoverished rural livelihoods to less vulnerable and better paid jobs in towns and cities. Not only has poverty declined viewed in terms of income, but other dimensions of poverty have rapidly improved. Both average years of schooling and life expectancy have improved to levels close or equal to levels reached by the rich countries in 1960. Vietnam illustrates this experience. As it has integrated into the world economy, it has had a large increase in per capita income and no significant change in inequality. The income of the poor has

risen dramatically, and the level of absolute poverty has dropped sharply, from 75 percent of the population in 1988 to 37 percent in 1998. Poverty was cut in half in only 10 years. We can be unusually confident of this information because a representative household survey was conducted early in the reform process (1992–93), and the same 5,000 households were visited again six years later. Of the poorest 5 percent of households in 1992, 98 percent had higher incomes six years later. Vietnam was unusually successful in entering global markets for labor-intensive products such as footwear, and the increased employment might be expected to benefit poor households. Uganda had a similar experience: dramatic poverty reduction and no increase in inequality.

While the more globalized economies grew and converged, the less globalized developing economies declined and diverged. Their growth experience was worse than during the second wave, but their divergence has been longstanding. Ades and Glaeser (1999) find that at least since 1960, less globalized developing countries, defined by the share of trade in income, have tended to diverge. Decline and divergence had severe consequences for poverty in its various dimensions. Between 1993 and 1998 the number of people in absolute poverty in the less globalized developing countries rose by 4 percent to 437 million. Not only were per capita incomes falling, but in many countries life expectancy and school enrollments declined.

During the second wave of globalization the rich countries diverged from the poor countries, a trend that had persisted for a century. During the third wave the new globalizers have started to catch up with the rich countries, while the weak globalizers are falling further behind.

The change in the overall distribution of world income and the number of poor people are thus the net outcomes of offsetting effects. Among rich countries there has been convergence: the less rich countries have caught up with the richest, while within some rich countries there has been rising inequality. Among the new globalizers there has also been convergence and falling poverty. Within China there has also been rising inequality, but not on average elsewhere. Between the rich countries and the new globalizers there has been convergence. Between all these groups and the weak globalizers there has been divergence. The net effect is that the long trend of rising global inequality and rising numbers of people in absolute poverty has been halted and even reversed (figure 1.19). Bourguignon and Morrisson (2001) estimate that the number of

people in absolute poverty fell by about 100 million between 1980 and 1992 (the endpoint of their analysis). Chen and Ravallion (2001) estimate that there was a further fall of about 100 million between 1993 (the closest date for comparison) and 1998.

Thus, globalization clearly can be a force for poverty reduction. In subsequent chapters we look at important factors at the global and local level that will determine whether it continues to be so. The next chapter takes up the global architecture for flows of goods, capital, and people, focusing on measures to strengthen integration and to enable locations currently left out of globalization to participate and benefit. Chapter 3 then turns to the national and local agenda in developing countries. Chapter 4 takes up issues of power, culture, and the environment. Chapter 5 brings together and summarizes the agenda for action to make globalization work better for poor countries and poor people.

Notes

1. Much of the emigration from India was forced, rather than voluntary.

2. The mean log deviation has the advantage that it can be decomposed into inequality between locations and inequality within locations. It also has an intuitive interpretation. Income distributions everywhere are skewed in favor of the rich, so that the “typical” person (one chosen randomly from the population) has less income than the average for the whole group. Roughly speaking, the mean log deviation (times 100) is the percent gap between the typical person and the average income. The more skewed the distribution in favor of the rich, the larger is this gap. So, for example, if per capita income in the world is around \$5,000 and the median person is living on \$1,000 (80 percent less), the mean log deviation will be around 0.8.

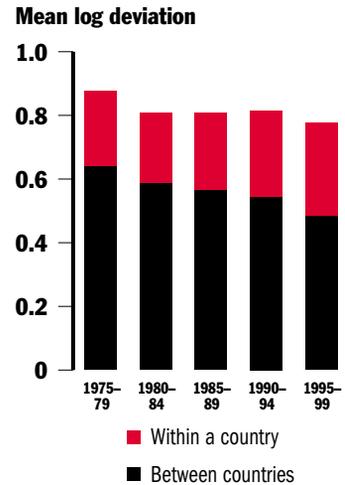
3. For this calculation we separated out rich economies (the original members of the OECD plus Chile; Korea; Singapore; Taiwan, China; and Hong Kong, China). The “more globalized”—the top third of developing countries in terms of increased trade to GDP between the 1970s and the 1990s—are Argentina, Bangladesh, Brazil, China,

Colombia, Costa Rica, Côte d’Ivoire, the Dominican Republic, Haiti, Hungary, India, Jamaica, Jordan, Malaysia, Mali, Mexico, Nepal, Nicaragua, Paraguay, the Philippines, Rwanda, Thailand, Uruguay, and Zimbabwe. The “less globalized” are all other developing countries for which we have data. The less globalized group is a very diverse set of countries. It includes failed states whose economic performance has been extremely poor. It also includes some countries of the former Soviet Union that went through a difficult transition in the 1990s. Some of the less globalized countries have had stable but not increasing trade, and positive but slow growth.

4. The more globalized had per capita GDP, at purchasing power parity, of \$1,488 in 1980, compared to \$1,947 for other developing countries (table 1.1). These are population-weighted averages so that relatively poor China and India have a large weight. However, even a simple average of GDP per capita was significantly lower for the globalizers in 1980.

5. The rule of law index has a standard deviation of 1.0. The 0.44 advantage of the globalizers is roughly the same as Uganda’s advantage over Zambia on this measure.

Figure 1.19 Worldwide household inequality, 1975–99



Source: Clark, Dollar, and Kraay (2001).

