

Global Economic Prospects

Managing the Next
Wave of Globalization

2007

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Foreword

GLOBAL ECONOMIC PROSPECTS reports have customarily aimed to stand back from the Bank's day-to-day work and explore existing or emerging debates in the international arena that are of critical importance to developing countries. We have endeavored to focus on areas in which the Bank's researchers and technical experts may provide insights based on their cross-country and global knowledge. Thus, past reports have helped to deepen the Bank contribution to policy debates in areas such as international and regional trade, investment, and, last year, migration and remittances.

The strong performance of the global economy—and of developing countries in particular—in recent years led us to ask whether these higher rates of growth could be sustained for the long term. And if so, what would the implications be for the global economy and for the world's poor? Answering those questions leads us to explore the nature of the “next globalization.”

Three features are likely to be particularly prominent in the next wave of globalization. First is the growing economic weight of developing countries in the international economy, notably the emergence of new trading powerhouses such as China, India, and Brazil. Second is the potential for increased productivity that is offered by global production chains, particularly in services, arguably the most dynamic sector of trade today. Third is the accelerated diffusion of technology, made possible through falling communications costs and improved

access to telecommunications and the Internet, as well as through innovative forms of business organization, often linked to foreign investment.

The next globalization—deeper integration with the world economy through trade, flows of information technology, finance, and migration—will offer renewed and enhanced opportunities to increase productivity and raise incomes. Producers participating in bigger international markets will be able to produce on a larger scale, access the most appropriate technology and knowledge, and participate in increasingly integrated global production chains. Consumers everywhere will have access to the latest international products.

However, along with rising average incomes may come dislocations and environmental pressures. This *Global Economic Prospects* analyzes three possible consequences—growing inequality, pressures in labor markets, and threats to the global commons. All are evident in the current globalization, but in coming years they are likely to become more acute. If these forces are left unchecked, they could slow or even derail globalization and thus adversely affect growth and development in many developing countries. The report is premised on the idea that the threats to continued global growth and poverty reduction from environmental damage, social unrest, or new increases in protectionist sentiment are potentially serious, and it is worth exploring ways that these disruptive forces might be addressed now if we wish to see sustainable global growth in the future.

To analyze these problems, the report employs a series of projections and simulations built around a central scenario of the evolution of the global economy. The objective of the scenario-based approach is to analyze the benefits and stresses of integration. The purpose is not to predict the future—the actual numbers for global or country performance may turn out to be higher or lower—but to think about dynamics in the global economy in a coherent analytical framework.

Focusing on the future helps bring into sharper relief the choices facing policy makers in managing global integration today.

National policy makers must decide how best to respond to globalization—because the growth and long-term competitiveness of their countries are at stake. And international policy makers must devise ways for nations to work together to ensure that growth is sustained and widely shared, and does not cause irreparable damage to the environment.

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The World Bank

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Overview

THE INTENSE PACE of globalization has improved living standards worldwide on an unprecedented scale—but not for everyone. Some countries and some social groups have been left behind. Even in countries that have benefited greatly from globalization, tensions in labor markets have simmered, at times boiling over into civil disturbances. Meanwhile economic growth, while essential to improving living standards, is damaging what many call the “global commons,” giving rise to concerns about the sustainability of long-term growth.

These pressures are likely to intensify in coming years. Why? Because as markets integrate, competition among countries—and their firms and workers—increases. Developing countries, once at the periphery of the global economy, are now moving to center stage and are becoming serious competitors in the markets of high-income countries and in each other’s markets. Concerns about competition from China and other low-wage suppliers now pepper the headlines in rich and poor countries alike. The loss of white-collar jobs from global sourcing of services, often to India and other developing countries, provides fodder for heated debate on talk shows and as the theme of several best-selling books.¹

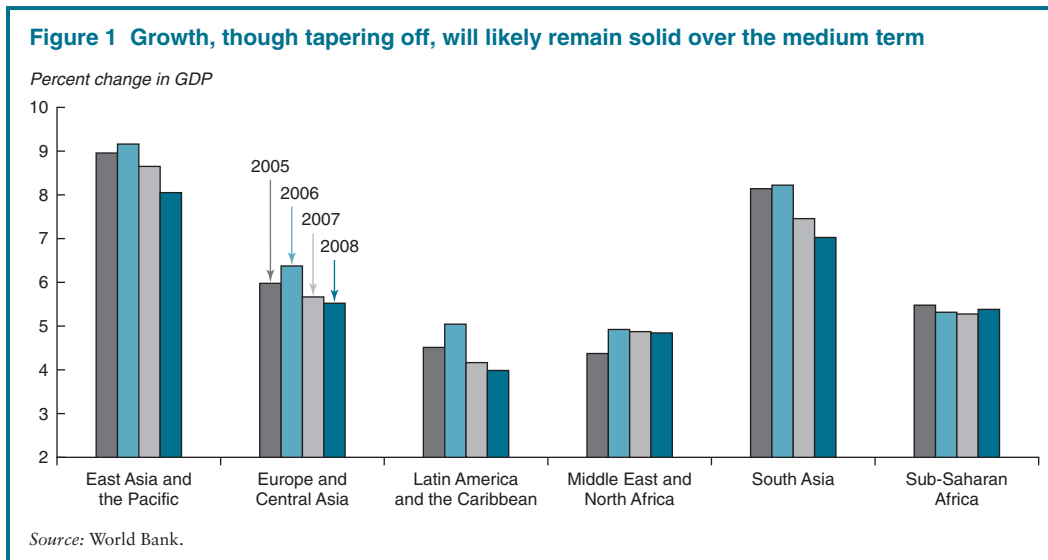
Will global integration—of trade, finance, technology, ideas, and people—continue into the foreseeable future? If so, what will it mean for developing countries and for today’s

high-income countries? How will global integration, interacting with demography, technical change, and other forces, affect the distribution of income and labor markets in rich and poor countries? How will it affect the global environmental and health threats that cloud long-term growth prospects?

Global Economic Prospects 2007 explores the next wave of globalization. The organizing vehicle for discussion is a set of growth scenarios covering the years 2006 to 2030. The objective of the scenario-based approach is to analyze the opportunities and stresses of integration. The purpose is not to predict the future but to bring into sharper relief the choices facing the world today. National policy makers must decide how best to respond to globalization—because the growth and long-term competitiveness of their countries are at stake. And international policy makers must devise ways for nations to work together to ensure that growth can continue without becoming destabilizing.

Prospects for 2007 and 2008— bright, with a few dim spots

The medium-term outlook for the world economy remains fairly bright (chapter 1). While the pace of economic expansion is slowing, developing economies are projected to grow by 7.0 percent in 2006, more than twice as fast as high-income countries



(3.1 percent), with all developing regions growing by about 5 percent or more (figure 1). Looking forward, limited inflationary pressures and high savings among oil exporters and in Europe (as Europeans prepare to meet the challenges of their aging societies) are expected to keep long-term interest rates low. As a result, while growth in developing countries may slow somewhat over the next two years, it is expected to remain very robust—at more than 6 percent in 2007 and 2008. Increases in supplies of key commodities, in combination with demand-side substitution and conservation measures, should allow for some easing of prices, including those for oil, but continuing strong global growth is expected to keep commodity prices high by historical standards.

Even though a tapering down of growth to a sustainable but robust rate remains most likely, this positive outlook is subject to significant risks. Efforts to temper the expansion in some of the fastest-growing developing countries may not succeed, leading to stronger growth in the short term but a sharper slowdown later. A faster-than-expected weakening of housing markets in high-income countries could brake the economy much more abruptly than expected, thus weakening global demand.

Disruptions in oil markets are always possible. And the unwinding of the U.S. current account deficit and its mirror surpluses in oil-exporting countries and East Asia could also be disruptive if sudden movements in capital markets, perhaps abetted by collective policy inaction, drive the rebalancing. Even so, these risks appear manageable, and the promising environment for growth makes this an opportune time to focus on long-term issues.

Globalization’s next 25 years— incomes up, poverty down, three big threats to growth

Demographic trends will be a major driver of future events. The Earth’s current population of some 6.5 billion is expected to rise to 8.0 billion by 2030, an average increase of 60 million annually. More than 97 percent of this growth will take place in developing countries. Both the European Union and Japan are likely to experience a decline in population, and most of the increase in other rich countries will be due to migration. The largest country in the world, China, will see its population continue to grow, but at a slower pace than the rest of the developing world. With more rapid

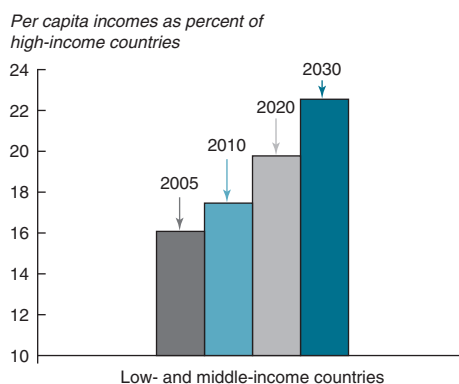
population growth, India will likely surpass China as the world's most populous country sometime during this period. The global labor force will increase from just over 3 billion today to 4.1 billion in 2030, a rate of increase greater than that of population. Meanwhile the dependency ratio is likely to fall, providing a sustained boost to world growth.

If this report's central scenario materializes, global economic growth will be somewhat faster in 2006–30 than in 1980–2005. But growth in the global economy will be powered increasingly by developing countries, where per capita incomes will rise 3.1 percent a year on average, up from 2.1 percent over the earlier period. That rate of increase will produce average per capita incomes in the developing world of \$11,000 in 2030, compared with \$4,800 today,² roughly the level of the Czech Republic and the Slovak Republic today. Average income in rich countries will also rise dramatically: the average income of the children of today's baby boomer is likely to be nearly twice that of their parents.

The output of the global economy will rise from \$35 trillion in 2005 to \$72 trillion (at constant market exchange rates and prices) in 2030, an average annual increase of about 3 percent—2.5 percent for high-income countries and 4.2 percent for developing countries. Though the incomes of developing countries will still be less than one-quarter those in rich countries in 2030, they will continue to converge with those of wealthy countries (figure 2). This would imply that countries as diverse as China, Mexico, and Turkey would have average living standards roughly comparable to Spain today.

This is good news for the world's poor. The implications of sustained growth for reducing poverty around the world are nothing short of astounding. Despite population growth, the number of people living in dire poverty—below the \$1-a-day poverty line—is likely to fall to 550 million from 1.1 billion today. Similarly, the number of people living on less than \$2 a day should fall below 1.9 billion, 800 million fewer than today. The bottom line? Poverty will decline, despite continuing population growth.

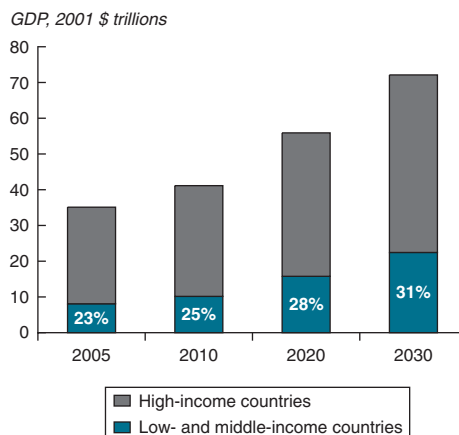
Figure 2 Average incomes are likely to converge, if modestly



Source: World Bank simulations using the Linkage model.

Note: Ratio of Purchasing Power Parity (PPP)-adjusted per capita incomes relative to high-income average. PPP is fixed at base year (2001) level.

Figure 3 Developing-country share of the global economy will rise in coming years



Source: World Bank simulations using the Linkage model.

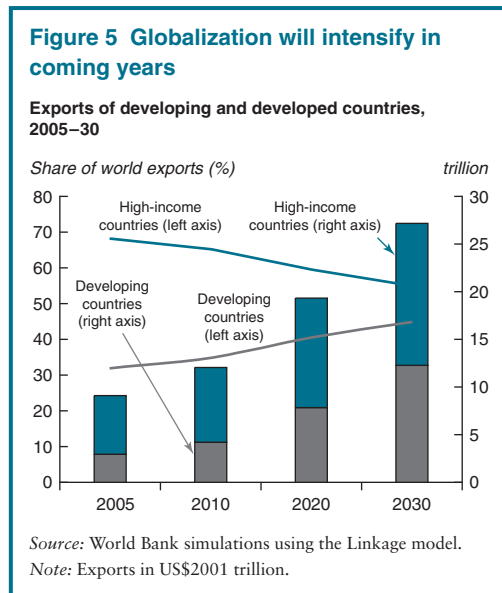
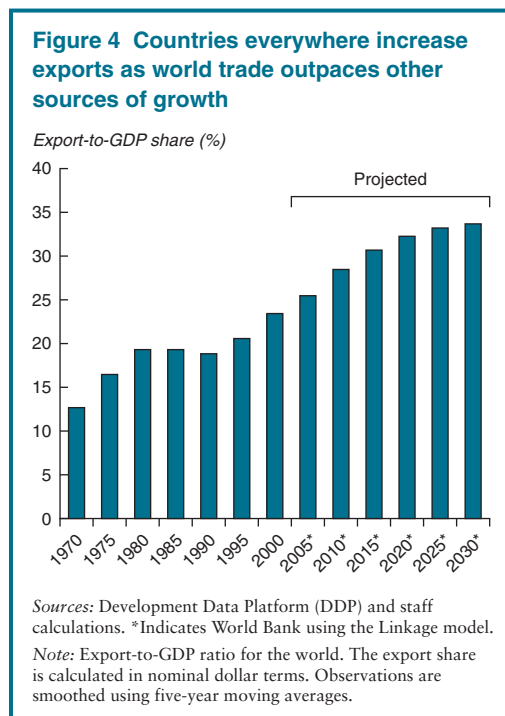
Note: GDP in 2001 \$ trillions, using PPP exchange rates.

Developing countries, once considered the periphery of the global economy, will become main drivers. Overall, developing countries' share in global output will increase from about one-fifth of the global economy to nearly one-third (figure 3). Their share of

global purchasing power would surpass half. Today, six developing countries have populations greater than 100 million and an annual gross domestic product (GDP) of more than \$100 billion. By 2030, under reasonable assumptions of economic growth, at least 10 countries will reach the twin 100s thresholds.³

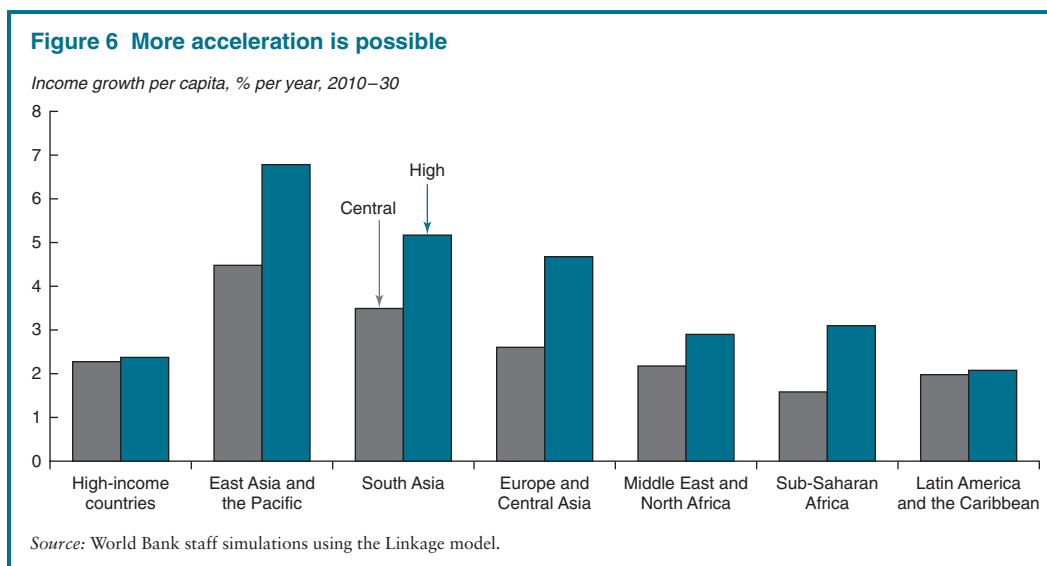
Global integration is likely to enter a new phase. In virtually every growing economy the importance of trade—captured by the ratio of trade to GDP—will rise, continuing the trend of the past two decades. The growth in the trade ratio over the next 25 years will be powered by a new dynamism in services trade. Global trade in goods and services, growing faster than output, is likely to rise more than threefold to \$27 trillion in 2030 (figures 4 and 5).

Roughly half that increase will come from developing countries. This means that a growing share of global production of goods and services will be performed in those developing countries able to take advantage of



new opportunities. For example, agriculture now accounts for about 2 percent of the economic value added of most rich countries; that share will shrink to boutique niches. A few resource-rich regions and countries, including Latin America and Australia, will be the source of 90 percent of the world’s sugar, 50 percent of its grain, and 40 percent of its dairy products. Whether countries exceed projections—or fall short—depends heavily on the policies they adopt over this long period.

Several factors could alter this relatively sanguine outcome for better or worse. The central long-term scenario in this report is robust enough to resist periodic recessions, isolated regional conflicts, and even many of the destabilizing crises the world has experienced in the past 30 years. These threats are likely to affect particular regional or national economies more than the world economy, and if history is a guide, are likely to be of relatively short duration. Between 1980 and 2005 the world economy grew at a steady pace despite several major disruptions—including the Latin American debt crisis, the demise of the Soviet Union, the East Asia



crisis, two global downturns, and the tragedy of September 11, 2001. These events had only short-term effects on global growth and a marginal impact on the steady advance of globalization, even though regional ripples continued for years afterward. This suggests that the basic long-term trends discussed here, if not the assumed growth rates, are fairly impervious to all but the most severe and sustained shocks.

At the same time, the possibility exists that the world will be even better than envisioned in the central scenario—thanks possibly to unanticipated technological improvements, more innovation in business processes that allow for an acceleration of globalization, and widespread adoptions of good policies within countries. Indeed, greater integration promotes knowledge about policies that work. It also shortens the duration of bad policies, as investment capital and human resources can more readily flee poorly performing nations. That discipline is likely to become more effective as financial, merchandise, and technological markets continue to integrate. The upside

scenario in this report (figure 6) is based on the assumption that countries perform closer to their full potential over a longer period of time. Predicated on maintaining the solid growth rates of the last half-decade, the high-growth scenario sketched here would lead to incomes in 2030 that are some 45 percent higher than those projected under the central scenario and to declines in absolute poverty (\$1 per day) from about 20 percent of the world's population today to less than 4 percent in 2030.

Two points emerge from the discussion of scenarios (chapter 2). First, policy matters. The right domestic and international policies, sustained over long periods, have the power to raise incomes around the world, especially in certain countries. Second, whether the underlying growth rates are low or high, the dynamics underpinning any likely scenario will generate stresses that require policy attention today. The report analyzes in detail three main stresses in the global economy that could threaten growth: widening inequality, growing tensions in labor markets, and new environmental pressures.

Income inequality could widen—among and within countries

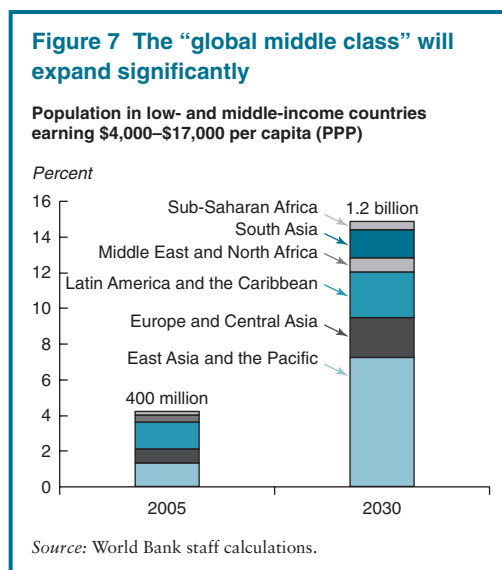
The benefits of globalization are likely to be uneven across regions and countries (chapter 3). Africa, because of underlying growth trends and the presence of many fragile states, is the region most likely to fall farther behind. But, it also has the most to gain from integration, because it can take advantage of technology and wage gaps to propel higher sustained growth.

Of equal concern, strong forces in the global economy may tend to increase inequality in many national economies. Even though a large segment of the developing world is likely to enter what can be called the “global middle class,” some social groups may be left behind or even marginalized in the growth process. Unskilled workers, in particular, may fall farther behind. Technological progress, by generating demand for greater skills, tends to widen the gap between the wages of skilled and unskilled workers. Demographic patterns that affect social dependency ratios (the ratio of workers to youth and retirees) and educational attainment are also important.

Trade per se has been found generally to have no systematic effect across countries as a direct channel for wage-gap widening. However, in combination with technological change and, to a lesser extent, foreign investment, these globalization-related forces may combine to increase inequality in many countries—at the same time as they are raising average incomes.

A global middle class will emerge

By 2030, fully 1.2 billion people in developing countries—15 percent of the world population—will belong to the global middle class, up from 400 million in 2005. Families of four in that class earn between \$16,000 and \$68,000 in PPP dollars (figure 7). (Because the definition used here is absolute and based on a global scale, most of those who consider themselves middle class in high-income



countries are classified as rich in a global context, while many people viewed as wealthy in developing countries are members of the global middle class.) This large group will participate actively in the global marketplace, demand world-class products, and aspire to international standards of higher education. That is, they would have the purchasing power to buy automobiles (perhaps second-hand), purchase many consumer durables, and travel abroad.

While still a minority in their own countries, the new members of the global middle class will place new and quite different demands on domestic political structures. Their livelihoods and standards of consumption are likely to be connected to the global market, so, as the studies reviewed in chapter 3 show, their political predilection may be more likely to favor access to the international market, if not greater openness itself. They also are more likely to demand transparency in political and corporate governance, certainty of contracts, and property rights—all hallmarks of an improving investment climate.

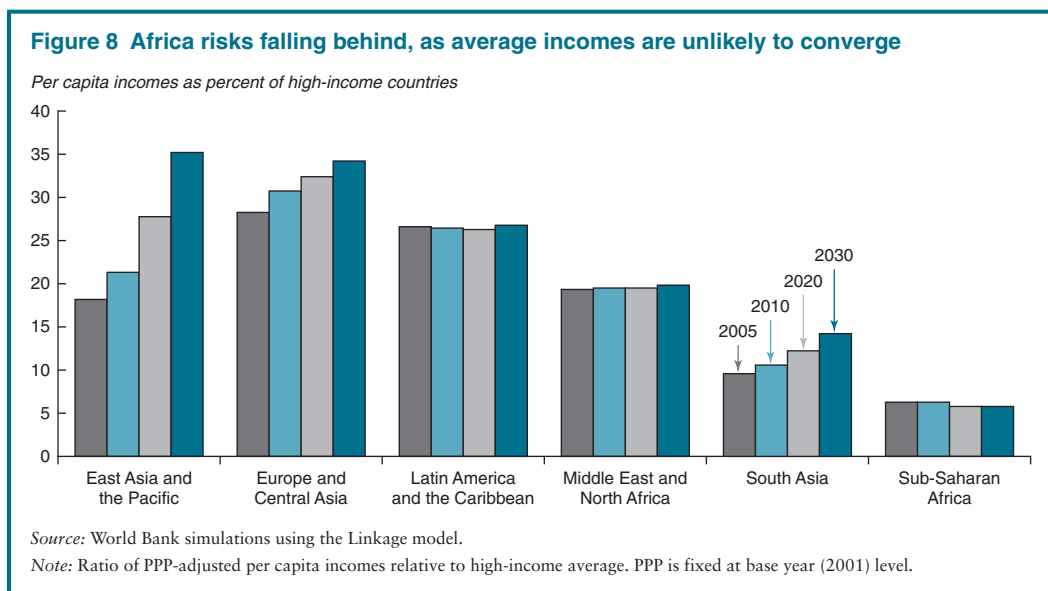
Most who enter the middle class will do so because they are able to move from agriculture into manufacturing and services or acquire valuable skills faster than their compatriots. For a given rate of growth, policies that allow mobility across sectors and that provide broader access to education can accelerate economic growth by creating the opportunity and incentives for all citizens to develop their productive potential.

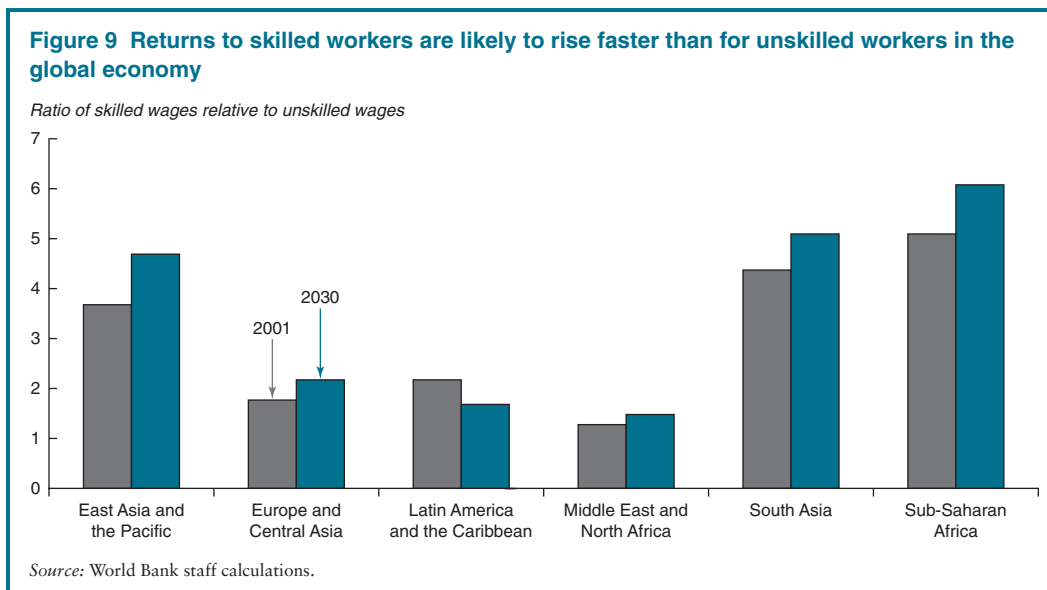
Africa and some groups within countries may lag behind

Sub-Saharan Africa will have to make a strong effort, with the support of the international community, if it is to avoid being left behind (figure 8). Today, half of the poorest tenth of the world population lives in Asia; by 2030 Asia’s share in the lowest tenth will be reduced to one-fifth under the central scenario. By contrast, Africa, now home to one-third of the poorest people, is likely to see its share of the lowest tenth double by 2030. To be sure, the region has the potential for more rapid growth, and sustained improvements in policy and investment climate could bring out that

potential. Most fundamental is a cessation of crippling civil conflicts that have stunted development in several regions of Sub-Saharan Africa. In the high-case scenario explored in chapter 2, Africa’s income could be twice as high as projected in the central scenario (see figure 6).

While developing countries are closing the income gap with rich countries, as many as two-thirds—more than 80 percent of the developing world outside China—may experience a worsening of within-country inequality, thus muting the poverty-reducing effects of growth and fanning social tensions that could derail growth. Demography plays a role, as aging societies tend to become more unequal. But the main driver is the widening difference in earning potential between skilled and unskilled workers (figure 9). This is because investments in capital and technology create a more rapidly growing demand for skilled workers. The simulations in this report suggest that the combined effects of all these forces—technology, globalization, demography, and demand for skilled labor—may widen income distribution in as many as two-thirds of all countries,





including many of the most populous developing countries.

Since in some countries, girls are deprived of schooling, women in these countries are more likely to enter the labor market without skills. This discrimination in effect foredooms them to be denied access to the opportunities afforded by global integration, and means the widening skill premium is likely to affect them disproportionately.

Several policies can lead to more egalitarian countries and a more egalitarian world. Governments can create new opportunities for the poor through additional investments in education. Investments in girls' education can be an important complement to reducing gender discrimination in the workplace. Additional resources for education and other pro-poor investments are likely to become available from a tax base centered on a growing middle-class. Moreover, increasing development assistance for lagging regions and the poorest countries—and making that assistance more effective—is critical. Particularly important are investments to overcome bottlenecks in infrastructure, education, and

health. Finally, increasing the access of poor countries to global markets (and thus raising living standards) by completing the now-suspended Doha Round of world trade negotiations and lowering barriers unilaterally could boost incomes in poor countries. Measures to expand trade should be coupled with aid to overcome supply-side constraints that now weigh down the trade of poor developing countries. Of these constraints, counter-productive domestic policies are often the most binding.

China, India, and global sourcing will put pressure on labor markets, especially for the unskilled

Rapid technological progress, burgeoning trade in goods, and growing international sourcing of services have come together to put new pressures in labor markets, pressures that will only become more acute in the next 25 years (chapter 4). Globalization offers opportunities for export growth and access to a wider range of cheaper imported products that

can fuel productivity growth and raise average living standards. But by creating a progressively more integrated global market for labor, it imposes adjustment costs on certain groups within countries, exerting downward pressure on some wages, decreasing job security, and making retraining and relocation necessary. Even though wages of unskilled workers in virtually all countries have risen as productivity has increased with globalization, the unskilled have received wage increases that are lower than those for skilled workers—and they have experienced greater difficulty in sustaining their employment. The projections in this report offer little reason to believe that this will change in the coming decades.

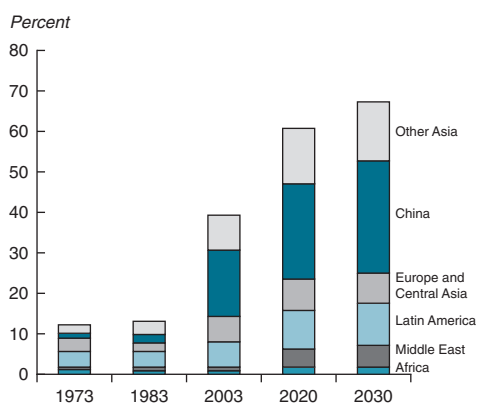
Particularly challenging is the rise of China, India, and other developing countries as manufacturing powerhouses, and, with growing tradability of services, as suppliers of services to the global market. While the qualitative implications of increasing exports of manufactured products from China and India are the same as for the emergence of the Asian tigers more than a decade ago, their sheer size raises the specter of intense export competition. Imports of high-income countries from all developing countries have risen from below 15 percent in the 1970s to nearly 40 today—but more important, their share is expected to rise to more than 65 percent in 2030 (figure 10). This has already exposed workers in rich countries to competition from low-wage countries, a pressure that will only intensify over the next 25 years.

Many developing countries fear that exports from these large new players may swamp their domestic markets, squeeze them out of the global export market, foreclose avenues of diversification in manufactures as a road to higher growth, and soak up the pool of foreign direct investment (FDI). High-income countries worry that if the large emerging economies can readily acquire and master the newest technologies, their exports may soon take over high-tech markets.

Global sourcing of services exerts similar pressures. The transfer to firms in developing

Figure 10 Imports from developing countries could rise, spawning productivity growth...and tensions

Share of high-income countries' imports of manufactures originating in developing countries, 1973–2003

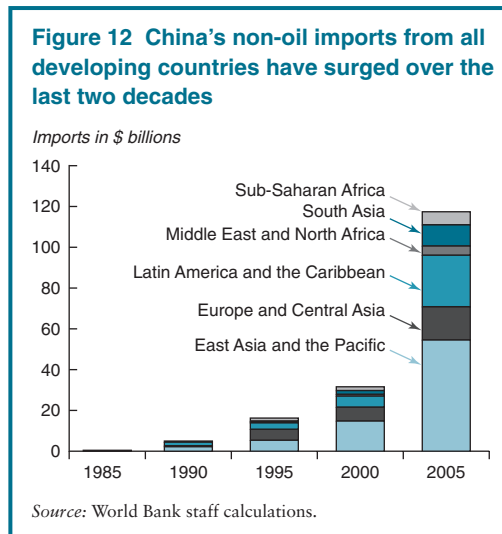
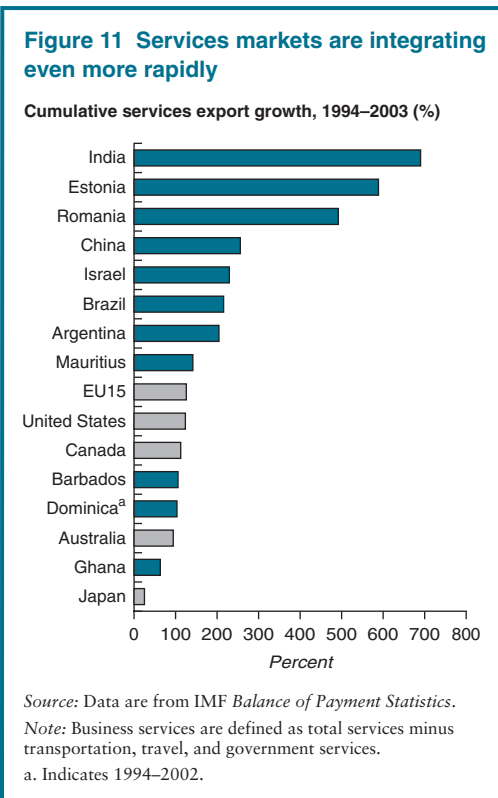


Source: Bank staff projections using the Linkage model.

countries of formerly nontradable service activities imperils white-collar employment in these activities in both high-income countries and advanced developing countries. Services exports have grown by leaps and bounds in many developing countries (figure 11), creating opportunities for productivity gains in both high-income and developing countries—but have led to more rapid job turnover in formerly nontraded white-collar jobs. The global sourcing of such relatively high-paying skilled jobs, in contrast to the displacement of low-skilled manufactures, has the potential to destroy the investments of white-collar workers in firm-specific knowledge.

The analysis in this report suggests that three factors are likely to mitigate these effects in the medium and even the long term.

- First, the growth of the Chinese, Indian, and other emerging markets offers enormous offsetting opportunities for other developing and developed countries to increase exports. As China and India increase their exports, they will have



to increase imports of intermediate inputs, energy, technology, and investment goods. Driven by Chinese demand, Asia was the principal destination for accelerated export growth for Africa and Latin America during the late 1990s and the early years of this decade (figure 12).

- Second, as exports and domestic living standards rise in these emerging economies, wages (and exchange rates) rise as well, creating space for low-income countries to move into low-skill activities abandoned by producers in the large emerging countries. Wages already have risen in China faster than in many other developing countries, a trend expected to continue (figure 13).
- Third, developing the social institutions that support a dynamic market economy in China and India will take time, providing an opportunity for smaller,

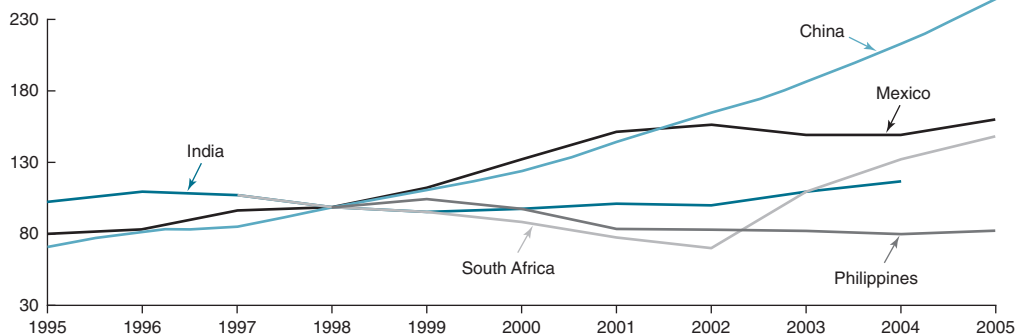
more flexible countries to progress faster in institutional development and for rich countries to continue to lead in productivity-enhancing innovation. The flow of service activities from rich to poor countries, which entails some transfer of know-how, will be slowed to the extent that institutional frameworks fail to protect the ownership of such assets and thus discourage FDI.

Despite this sanguine conclusion, the policy response of countries will determine whether they will be among those able to take advantage of the new opportunities and improve their living standards—or fall behind. Policies to embrace, rather than resist, global integration will lay the foundations for future growth and job creation. Openness to trade and FDI will become ever more critical if the poorest countries are to absorb technologies and know-how from abroad and seize the opportunities created by rising demand from, and production shifts in, China and India. But openness alone will not be sufficient to foster integration in the absence of an attractive investment climate, with sound institutions and policies that allow resources (labor, capital,

Figure 13 Average wages in China are rising rapidly, creating new opportunities for other low-income countries, 1995–2005

Internationally comparable average wage rates

Index 1998 = 100



Sources: *China Statistical Yearbook 2005*, People's Bank of China, International Labour Organization (the Philippines, South Africa), IBGE (Brazil), Banco de Mexico, Ministry of Statistics and Programme Implementation (India); exchange rates from IMF *International Financial Statistics*.

Note: Wages are average wages for China, the Philippines, and South Africa, average private sector wages in Brazil, and manufacturing wages for India and Mexico. Wages for 1998–2000 for the Philippines have been estimated using observed wages from 2001 and projecting them backward using GDP per capita growth rates.

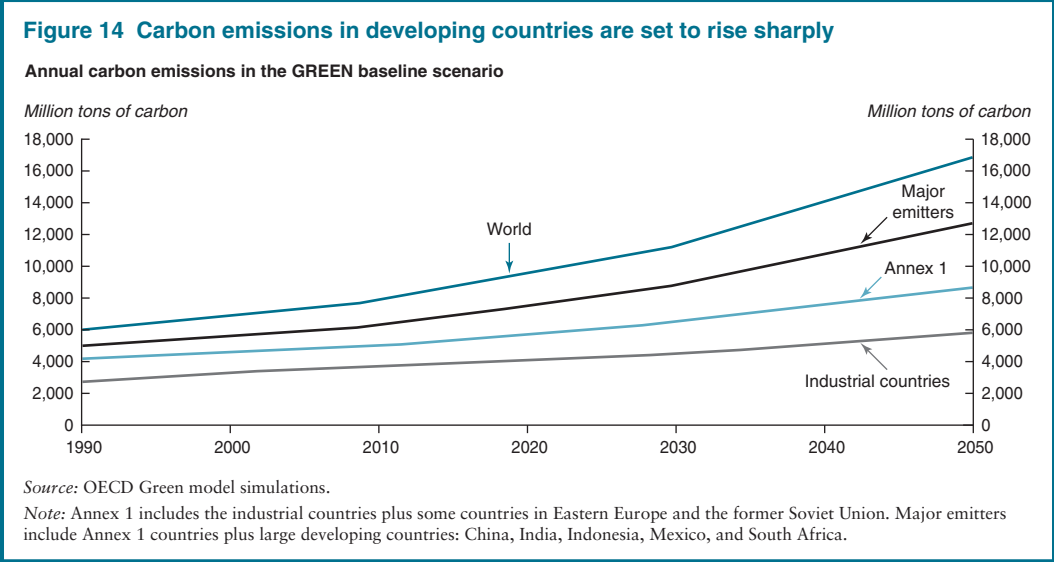
and knowledge) to flow from low-return sectors to high-return sectors. Developing knowledge-intensive activities as future drivers of growth will require investing in the institutions and policy frameworks that foster innovation and providing effective education and lifelong learning for all workers.

Even in the most propitious economic environments, policies are needed to cushion the adjustment costs associated with rapidly changing work force demands and involuntary dislocation. Projections indicate that returns to skilled labor will continue to increase more quickly than those to unskilled labor, extending today's natural wage-widening tendencies evident in many, if not most, countries, and underscoring the need for public policies to support workers at the low end of the scale. Together, both volatility and rising wage inequality argue for labor-market policies focused on protecting workers rather than protecting jobs. These trends also argue for creating opportunities for low-income people through educational and infrastructure investments while eschewing subsidies to inefficient activities.

Environmental threats will demand much more multilateral collaboration

The gains from growth and globalization could be undermined by their environmental side effects. Because increases in production magnify cross-border pollution, while improvements in technology make it possible to expand or intensify exploitation of scarce global resources, decisions at the national level are having a growing impact on other countries. International institutions will thus be required to play a larger role in a wide spectrum of issues—all involving global public goods⁴—where exclusive reliance on the decisions of individual governments or the private market can lead to adverse outcomes. As developing countries enlarge their role on the global stage, their integration as full partners in multilateral solutions to global problems will be essential.

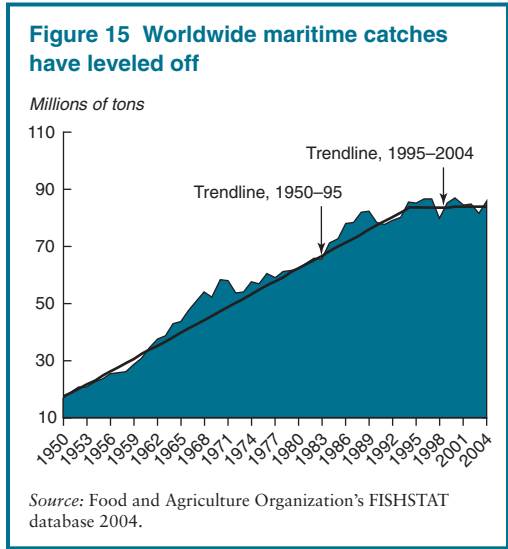
Mitigating climate change, containing infectious diseases, and preserving marine fisheries are three prominent global public goods that demonstrate the need for—and benefits of—international policy cooperation.



- Rising industrial output means that, based on current trends with existing technologies, annual emissions of greenhouse gasses (GHGs) will increase roughly 50 percent by 2030 and will increase twofold by 2050 (figure 14). This necessarily would sharply increase the concentrations of GHGs in the atmosphere, with substantial risks of detrimental effects on future productivity and—more generally—on human welfare around the globe. The problem is how best to provide energy necessary for growth, while at the same time reducing emissions toward levels that will eventually stabilize atmospheric concentrations. Even in the next decade or two, scientists underscore the possibility—though still low probability—that global warming could cause natural disruptions severe enough to push growth rates perilously below historic trends. While decades will pass before the most severe effects of climate change will begin to be felt, the collective response of today’s global leaders is almost certain to have far-reaching

implications for the welfare of future generations.

- Technological progress and rising demand have increased efforts to harvest fish from the open seas, degrading ocean environments and driving some valuable species to near-extinction. Fish catches already have leveled off (see figure 15).



Recent scientific calculations project near-complete depletion by 2048 in the absence of collective international efforts to limit fishing to sustainable levels (see Worm and others 2006). Long-standing efforts to limit marine catches to sustainable levels have met with only a few successes, as institutional weaknesses, technical difficulties, and inappropriate incentives, such as fishing subsidies, impede sustainable management.

- The growing interaction of national economies through trade and movements of people, while broadly beneficial, has increased the risk of spreading contagious diseases. HIV/AIDS (human immunodeficiency virus/acquired immune deficiency syndrome) is one example. The severe acute respiratory syndrome (SARS) is another. The most prominent current threat is posed by the avian influenza virus.

These examples of the side effects of globalization—one long-term, one medium-term, and one immediate—pose risks to the progressive expansion of the global economy, and to developing countries in particular. Some of the more catastrophic climate-change scenarios, if they materialize, could undermine the development prospects of whole countries and even regions through their effects on agriculture, water, and ecosystems. According to the United Kingdom government's recent comprehensive analysis, the *Stern Review*, failure to address climate change could—potentially—lead to huge reductions in welfare (cuts in per capita consumption of 5–20 percent), while the cost of stemming the rise in GHG concentrations at a reasonable level could be about 1 percent of annual GDP by 2050 (U.K. 2006). These estimated costs of inaction are substantially higher than previous estimates. The report concludes that an international framework should include emissions trading to encourage energy efficiency, technological cooperation to ensure more rapid

adoption, action to reduce deforestation, and assistance to poor developing countries to promote adaptation to permanent climatic changes.

Similarly, failure to contain an epidemic could suddenly brake global commerce, isolate some populations, and impose huge losses on affected developing countries. Unrestrained marine fishing, while less potentially calamitous than climate change or a flu pandemic, could permanently degrade a critical global food source and destroy irreplaceable deep-sea habitats and biodiversity.

Effective multilateral collaboration is needed to ensure that economic growth and poverty reduction proceed without causing irreparable harm to future generations. Developing countries are central to the management of these risks. Though these countries are relatively small contributors to global warming today, the projections in this report imply that soon enough they will become large contributors; moreover, if no action is taken, the standard of living that they could otherwise expect may well be put at risk. Similarly, given the limited supply of medical facilities and nursing care in the developing world, a flu pandemic could have horrific consequences. In many developing countries people depend on fish for an important share of their diet, and the poor would suffer if the price of fish, as well as substitutes, were to skyrocket as supplies dwindled.

The three cases differ in the degree of agreement among policy makers—and, to less degree, scientists—regarding the risks involved. There is a large international consensus on the need to protect against the spread of (selected) contagious diseases, and on the right methods of doing so. The potential for exhausting marine fisheries is well understood, although disagreement remains on the amount of resources to commit, the limits on fishing to impose, and how to allocate access to fisheries. There is an international consensus that human activity is contributing to climate change, and that industrial

emissions are directly related to atmospheric concentrations of GHGs, although the precise implications of different levels of GHG concentrations for climate change remain uncertain. While disagreements over the facts in each case have hampered efforts at international cooperation, they have not been the major impediment to progress.

The greatest policy challenge in safeguarding the global commons involves strengthening international agreements and institutions. The World Health Organization has addressed the threat of global pandemics effectively. The basic legal framework is in place to safeguard the sustainability of marine fishing, but is often inadequately enforced by weak institutions. Even more work is required to establish the global institutions capable of reducing the risks from climate change. Discussions aimed at replacing the Kyoto Protocol, which expires in 2012, with a more comprehensive and ambitious agreement are underway within the framework of the United Nations Framework Convention on Climate Change. Meanwhile, it may be useful to start putting in place other vehicles, such as a global system for trading emission permits and better means of monitoring emissions in both high-income and developing countries, so as to allow a rapid implementation of effective policies, once these are agreed. Achieving policy consensus is difficult, but it is now urgent.

The world in 2030

All these developments are pieces of the new burden lying on the shoulders of national policy makers: to manage globalization or risk being run over by it. This requires government policies to ensure that the poor are incorporated into the growth process through pro-poor investments in education, infrastructure, and transfers. Similarly, it requires policies to support and invest in

workers—all the while promoting change, not fighting it.

Deepening economic interdependence also places a new burden on the collective actions of the international community. Several positive responses are clear. First, increasing the amount and effectiveness of development assistance through both multilateral and bilateral institutions can ease the tendency of globalization to produce uneven growth. Second, liberalizing trade in the framework of the World Trade Organization can create new opportunities for poor countries and poor people. The most immediate task is to reactivate the Doha Round and conclude an agreement that lowers trade barriers to the products the world's poor produce, especially agriculture and labor-intensive manufactures. And third, deepening institutional mechanisms to deal with threats to the global commons can ensure that globalization is not undone by its own success—by providing forums in which disagreements about how to provide global public goods in which all nations ultimately have an interest can be resolved. Multilateral cooperation will be even more important in the integrating world of tomorrow than it is today. The way the international community, acting together, manages the process of integration will determine whether the world of 2030 will realize its potential.

Notes

1. Several recent and provocative books deal with these themes or variations, and from quite different perspectives. See, for example, Dervis (2005), Friedman (2005), Goldin and Reinert (2006), Mishkin (2006), Stiglitz (2006), and Wolf (2004) as well as various issues of *Foreign Policy*.

2. This is measured in constant dollars adjusted for purchasing power parity.

3. Today the six countries are Brazil, China, India, Indonesia, the Russian Federation, and, most recently, Mexico. By 2030, Bangladesh, Nigeria, Pakistan, the Philippines, and Vietnam will reach both thresholds. Already today the populations of Bangladesh, Nigeria, and Pakistan exceed 100 million.

4. Examples of global public goods, in addition to protecting the environment, include ensuring global security, keeping the trading system open and nondiscriminatory, and maintaining global financial stability. A useful overview of many of these can be found in Bhargava 2006.

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Abbreviations

ALMP	Active labor market program
APEC	Asia-Pacific Economic Cooperation
BOP	Balance of payments
CGE	Computable general equilibrium (economic models)
CPIA	Country Policy and Institutional Assessment
DDA	Doha Development Agenda
DDP	Development data platform
DPRs	Diversified Payment Rights
EU	European Union
FCC	Federal Communications Commission
FDI	Foreign direct investment
GDP	Gross domestic product
GATT	General Agreement on Tariffs and Trade
GATS	General Agreement on Trade in Services
GHG	Greenhouse gas
GTAP	Global Trade Analysis Project
IMF	International Monetary Fund
IPPC	Intergovernmental Panel on Climate Change
ITA	Information Technology Agreement
MDG	Millennium Development Goal
MNEs	Multinational enterprises
NAFTA	North American Free Trade Agreement
NIEs	Newly industrialized economies
ODA	Official development assistance
OECD	Organisation for Economic Co-operation and Development
OPEC	Organization of the Petroleum Exporting Countries
PPP	Purchasing Power Parity
RTAs	Regional trade agreements
TAA	Trade adjustment assistance
TFP	Total factor productivity
UNCTAD	United Nations Conference on Trade and Development
WHO	World Health Organization
WTO	World Trade Organization

