



PART 4

New Global Trends

This fourth and final part of the report turns to new global trends—features of the landscape that a developing-country policy maker cannot hope to control alone, because they are the aggregate result of many countries' behavior. These trends are also relatively new developments, which the 13 success stories did not themselves have to face. The first is the threat economic growth poses to the world's climate—and the threat the climate poses to growth.

Global Warming

Suppose the developing world does emulate the growth of China, Indonesia, and the rest of our 13 successes, industrializing briskly for the next 20 years at a growth rate of about 7 percent annually. This would be a triumph, but a qualified one. It would carry one unsettling implication: such rapid industrial expansion would add dangerous amounts of carbon dioxide to an atmosphere already polluted by unsafe concentrations of greenhouse gases (GHGs).

The Quantitative Challenge

The Inter-governmental Panel on Climate Change (IPCC) has calculated that a relatively safe level of CO₂ emissions globally is 14.5 gigatons per

Table 2 Global carbon footprints at OECD levels would require more than one planet^a

	CO ₂ emissions per capita (t CO ₂) 2004	Equivalent global CO ₂ emissions (Gt CO ₂) 2004 ^b	Equivalent number of sustainable carbon budgets ^c
World ^d	4.5	29	2
Australia	16.2	104	7
Canada	20.0	129	9
France	6.0	39	3
Germany	9.8	63	4
Italy	7.8	50	3
Japan	9.9	63	4
Netherlands	8.7	56	4
United Kingdom	9.8	63	4
United States	20.6	132	9

Source: UNDP, Human Development Report 2007, calculations based on Indicator Table 24.

a. As measured in sustainable carbon budgets.

b. Refers to global emissions if every country in the world emitted at the same per capita level as the specified country.

c. Based on a sustainable emissions pathway of 14.5 Gt CO₂ per year.

d. Current global carbon footprint.

year, which comes out to 2.25 tons per person per year globally. Table 2 from the United Nations Human Development Report (2007) gives the per capita emissions for major industrial countries.

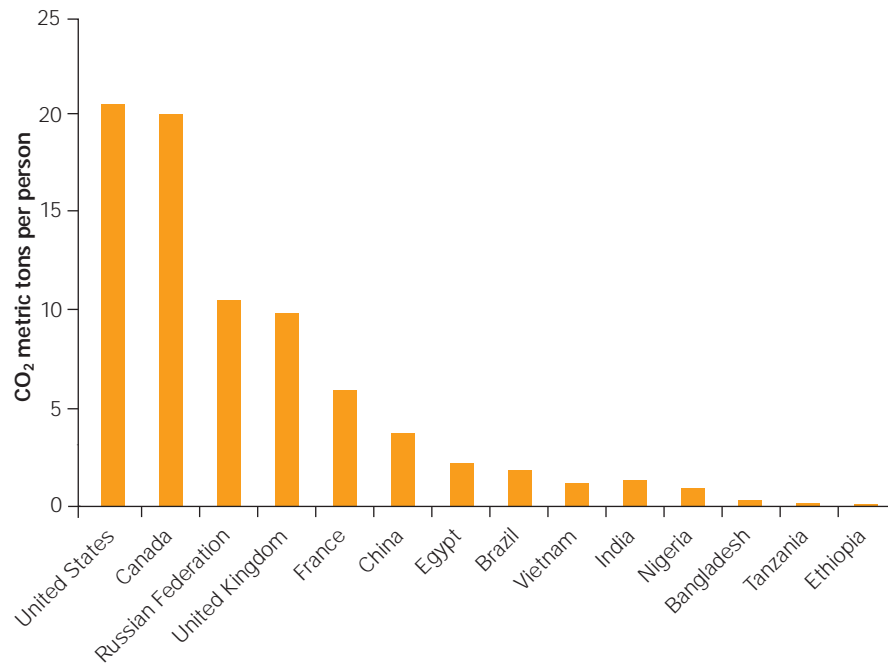
Clearly the advanced countries are at per capita output levels that, if replicated by the developing world, would be dramatically in excess of safe levels. World carbon emissions are now at about twice the safe level, meaning that if the current output is sustained, the CO₂ stock in the atmosphere will rise above safe levels in the next 40 years. The figures for a range of countries, including developing countries, are shown in Figure 9.

If the developing countries did not grow, then safe levels of emissions would be achieved by reducing advanced country emissions by a factor of two or a little more. But with the growth of the developing countries, the incremental emissions are very large because of the size of the populations. To take the extreme case, if the whole world grew to advanced country incomes and converged on the German levels of emissions per capita, then to be safe from a warming standpoint, emissions per capita would need to decline by a factor of four. Reductions of this magnitude with existing technology are either not possible, or so costly as to be certain of slowing global and developing country growth.

What these calculations make clear is that technology is the key to accommodating developing country and global growth. We need to lower the costs of mitigation. Put differently, we need to build more economic value on top of a limited energy base. For that we need new knowledge.

Population growth is sometimes viewed as the problem. It may be in the future, but most of the projected emissions growth is not in high-

Figure 9 Per Capita CO₂ Emissions



Source: UNDP, Human Development Report 2007.

population-growth countries. The real challenge is accommodating high-speed economic growth in what are currently large populations.

Carbon Intensity

The carbon intensities for the advanced countries and China and India measured as gigatons per trillion dollars of GDP are shown below. Carbon intensity is clearly much lower in advanced countries, even in the United States, which is very high in terms of energy consumption per person and per dollar of GDP (table 3).³⁵

This decline of carbon intensity with per capita income is partly the result of a shift to value built on knowledge and human capital in the course of growth. It is also partly a result of the movement of energy- and carbon-intensive industries to lower-income countries. Often these industries export their products back to developed countries. To that extent, developing countries owe their carbon intensity not to their own consumption patterns, but to those of the developed countries. Declining carbon intensity will help but not solve the problem.

Table 3 Carbon Intensity (Gigatons of CO₂ emissions per trillion dollars of GDP)

Countries	Output
United States	0.46
European Union	0.29
Japan	0.19
China	1.67
India	1.30

Source: See appendix, p. 163.

³⁵ This is a natural result of economic growth. The latter is accompanied by a structural evolution of the economy toward services, knowledge-intensive, value-added activities that are by nature less energy- and carbon-intensive.

The debate on global warming has generated its own terminology. “Mitigation” refers to efforts to reduce the greenhouse effect; “adaptation,” to efforts to cope with the consequences of climate change. To put it simply, we mitigate so that we won’t have to adapt, and we adapt insofar as we fail to mitigate.

Mitigation efforts include cutting carbon emissions by increasing energy efficiency. They might also include measures to remove carbon from the atmosphere by planting trees, for example. Deforestation and land use changes account of 20–30 percent of emissions growth, which could be considerably reduced by avoiding deforestation and expanding afforestation. Mitigation could also include attempts to offset greenhouse gases: if the outer atmosphere could be made more reflective, for instance, it would repel heat-generating radiation before it reaches the earth’s surface and is trapped by greenhouse gases.

Adaptation includes irrigating fields deprived of rain, building levies against rising sea levels, or moving further inland. The term could also include medical responses to the diseases that might thrive in a warmer, wetter climate.

What is at stake for developing countries?

Some of the countries likely to suffer the worst, earliest damage from global warming are poor countries in the tropics. Models suggest, for example, that coastal erosion may threaten more than 1 million people by 2050 in the Nile delta in Egypt, the Mekong Delta in Vietnam, and the Ganges-Brahmaputra delta in Bangladesh.³⁶ Developing countries also lack the resources to adapt easily to global warming. They cannot afford, for example, to relocate large numbers of people from low-lying areas.

But developing economies are not only potential victims of climate change. Some also contribute to the problem. China, India, and other big, fast-growing economies now generate too much carbon dioxide to be ignored. China’s annual emissions, for example, now approximately match those of America. The world will not succeed in its efforts to mitigate global warming if the bigger, faster-growing economies do not take part.

As a result, China, India, and their peers are under pressure to commit to cut emissions by a given percentage by 2050. They are resisting, because such commitments might threaten their growth, and also because they consider them unfair. The commitments they are being urged to make ignore the fact that their per capita emissions are much lower than those in developed economies. An equal emissions entitlement per person is, in their view, the minimum requirement for fairness.³⁷

“Climate-change agreements need to find a way to accommodate the growth in developing countries. We don’t want to say, ‘I’m sorry, you arrived late. The world’s changed; you don’t get to grow.’ It just isn’t right.”

—Michael Spence

36 IPCC. 2007. “Coastal Systems and Low-Lying Areas” in *Climate Change 2007: Impacts, Adaptation and Vulnerability*. Cambridge, UK: Cambridge University Press.

37 The Indian Prime Minister Dr. Manmohan Singh has stated that India would be willing to undertake to keep its per capita emissions below those of industrialized countries thus giving the latter a strong incentive to reduce their emissions as quickly as possible.

It is not wise to seek long-term commitments from developing countries to reduce emissions, nor is it likely to result in an agreement. There remains a great deal we do not know about the impact of climate change and the cost of cutting carbon. This uncertainty will be resolved over time. Therefore, the world should not lock itself into precise, quantitative commitments for the far-flung future. It should instead anticipate that information will improve—and leave some options open. Interim mitigation targets, set at periodic intervals, would allow policies to respond to new information as it arrives.

We know that the world will get warmer as a result of a given stock of GHGs. But we cannot say how much warmer with any precision. Nor do we know the costs of cutting emissions. These costs will vary by source—it may be cheaper to cut transport emissions or power station emissions—and by location—it may be costlier to cut CO₂ in Asia or in Africa. The cost of carbon cuts will also change in the future, as new clean technologies emerge.

Faced with these uncertainties, it is not wise for a country to tie its hands. But the risks for poor countries are greater. If GHGs turn out to warm the climate less than we thought, or the cost of cutting carbon turns out to be far greater than we thought, developing countries may regret any long-term promises they made.

The effort to cut carbon by a given percentage should be judged by two criteria: is it efficient? That is, are we cutting carbon as cheaply as possible? Second, is it fair? Is the mitigation effort giving room to the aspirations of developing economies to raise their living standards?

If one assumes that each country must bear the cost of its own fight against carbon, no deal will pass these two tests. An efficient agreement will be unfair, because efficiency will require carbon cuts in the developing world. A fair agreement will be inefficient, because it is relatively costly to cut carbon in the rich world. We are in a bind.

Fortunately, there is a way out of this bind: the cost of mitigation can be decoupled from the site of mitigation. Who cuts carbon is one question; who bears the cost another. In principle, high-income countries could bear the cost of cutting carbon in developing countries. The cuts can be made efficiently; the costs distributed fairly.

There are two ways to do this: a global carbon tax, or a global allocation of greenhouse gas permits, distributed fairly, which can be bought and sold. Both put a price on carbon (which creates an incentive to invent ways to economize on it). Both result in an efficient pattern of carbon cuts.

How does a cap-and-trade system divorce cost from location? Permits are given to countries, giving them the right to emit a given amount of carbon dioxide. Enough permits are awarded to poor countries to give them room to grow. But because they can sell these permits for the prevailing carbon price, they have an incentive not to use them. If economizing on carbon is cheaper than the world price of emitting carbon, they will sell the permit rather than using it.

“Fighting climate change will, of course, change the pattern of growth. It may reduce it in some places, but expand it in others. For example, if we pay people to keep forests in place, those payments can be used for productive purposes.”

—Lord John Browne

A carbon tax does not by itself separate the cost of mitigation from the location. Countries pay their own carbon taxes. Even though they also retain the revenues, these taxes may still harm the economy. Therefore a uniform, global carbon tax would have to be supplemented by a burden-sharing mechanism that pools the revenues and transfers money from rich countries to poorer ones, according to a fair principle.

The world is not as yet ready to adopt either of these solutions. Long years of design, negotiation, and implementation await. What should countries do in the meantime?

The Commission recommends the following nine steps. Taken together, they will cut emissions, thereby staving off some of the worst dangers of global warming. They will reveal more about the cost of cutting emissions, and they will encourage new technologies that reduce these costs. These steps are also fair.

1. The advanced economies should cut emissions first and they should do so aggressively. This will slow the accumulation of carbon in the atmosphere. It will also reveal a great deal about how much it truly costs to cut carbon emissions.
2. More generous subsidies should be paid to energy-efficient technologies and carbon reduction technologies, which will reduce the cost of mitigation.
3. Advanced economies should strive to put a price on carbon.
4. The task of monitoring emissions cuts and other mitigation measures should be assigned to an international institution, which should begin work as soon as possible.
5. Developing countries, while resisting long-term target-setting, should offer to cut carbon at home if other countries are willing to pay for it. Such collaborations take place through the Clean Development Mechanism provisions in the Kyoto protocol. Rich countries can meet their Kyoto commitments by paying for carbon cuts in poorer countries.
6. Developing countries should promise to remove fuel subsidies, over a decent interval. These subsidies encourage pollution and weigh heavily on government budgets.
7. All countries should accept the dual criteria of efficiency and fairness in carbon mitigation. In particular, richer countries, at or near high-income levels, should accept that they will each have the same emissions entitlements per head as other countries.
8. Developing countries should educate their citizens about global warming. Awareness is already growing, bringing about changes in values and behavior.
9. International negotiations should concentrate on agreeing to carbon cuts for more advanced economies, to be achieved 10 or 15 years hence. These mitigation efforts should be designed so as to reveal the true costs of mitigation.

We do not know how much growth countries will have to sacrifice to cut carbon 25 years from now. If those costs are high, there will be very difficult choices to make. In the meantime, we should try to cut those costs, distribute the cuts efficiently, and spread the costs fairly.

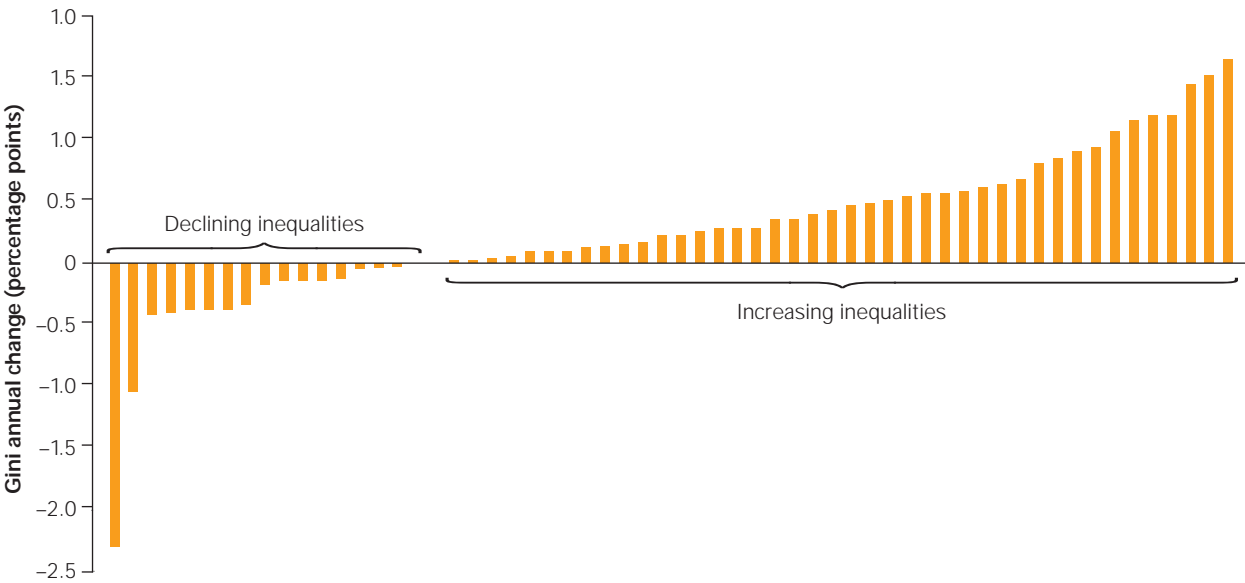
Rising Income Inequality and Protectionism

Income inequality is rising in a surprising number of countries across the globe (see figure 10). This trend is a complex phenomenon with multiple causes: technological change, shifting relative prices, and globalization. Much of it, however, is attributed to globalization.

The result is a growing skepticism about the benefits of globalization, in developing and developed countries alike. The October 2007 Pew Survey of Global Attitudes is both telling and worrying. It clearly indicates that enthusiasm for further opening of the global economy is flagging in many advanced economies, and some developing countries as well. Only countries in East Asia buck this trend.

In political terms, these attitudes can translate easily into protectionist sentiment. For example, America’s administration is finding it difficult to persuade Congress to pass bilateral trade agreements with allies like Colombia and Korea. The World Trade Organization, described as the

Figure 10 Gini Annual Change



Source: World Bank, Global Monitoring Report 2008.

Note: The time period varies depending on the availability of data. Typically it is from late 1980s and early 1990s to later 1990s and early 2000s.

“The leadership of the global economy is cause for concern. A system unable to generate consensus on the Doha trade round will likely fail to reach consensus on other critical global issues such as global warming, or the rise of protectionist forces in industrialized countries.”

—Montek Singh Ahluwalia

world’s “insurance policy against protectionism” by its Director-General, Pascal Lamy, is likewise struggling to make progress with the Doha round of global trade talks, which were launched in Qatar in 2001 and were originally scheduled for completion by the end of 2004. Economists may disagree on the economic significance of the global deal under negotiation. But progress in the Doha round has assumed great symbolic importance as a test of the world’s commitment to a flexible multilateral trading system in the face of a potential protectionist backlash.

This worrying turn in sentiment, it seems to us, is largely the result of two trends, trends that policy makers in most countries have done too little to ameliorate. One is the rapid movement of economic activity from one location to another. A second is the impact of labor-saving technologies, particularly in the sphere of information processing. Both trends add to economic growth. But both also pose a potential threat to some people’s jobs and job security.

In an important sense the global economy is a public good, provision of which requires coordinated action from all countries. With enough effort from governments and international organizations, the benefits of the global economy could be distributed widely across nations and within them. The net welfare gains from openness provide ample resources to compensate globalization’s casualties and discontents, if governments had the political will to manage the problem. At the moment the rhetoric is consistent with this priority, but the actions are not.

In developing countries, as noted earlier, policies designed to impede entry and exit are quite likely to succeed in slowing productivity and growth. Much the same is true in the global economy. Protecting companies and jobs from competition will slow economic progress. A better approach is to protect people and incomes, providing support to workers between jobs and preserving their access to essential services during these transitions.

To shore up support for an open global economy, governments may have to change their domestic policies. The U.S. economy, for example, offers relatively low levels of social insurance by European standards. The tax system has become less progressive over time. Certain social functions have devolved to local government and to nonprofit organizations. Some argue this provides a better balance between social insurance and protection on the one hand, and flexibility and efficiency on the other.

Other people, as one would expect, take the opposite view. We only want to make the point that the balance a country strikes between flexibility and security, efficiency and welfare, is not timeless or independent of circumstances. If economic shocks become more frequent or severe, a new dispensation might be required. It would seem quite natural to think that a country’s safety nets and social insurance systems need to adapt, and probably also the tax system. The alternative approach is distinctly worse.

It is to preserve domestic systems in aspic and to shy away from the global economy instead.

Such defensiveness is damaging and counterproductive. It hurts a country's trading partners in the short run, and damages the country itself in the long run. But the task of defending an open, global economy would be easier if we stopped talking about it as an obvious choice and started to admit that it is hard and challenging work. It is not easy to adapt domestic policies and coordinate international responses to a constantly shifting global terrain. It would also serve the cause if it is acknowledged at the outset that the benefits and costs fall asymmetrically across countries, and across groups of people within countries.

The Rise of China and India and the Decline of Manufacturing Prices

One does not have to spend much time listening to the concerns of poorer developing countries to discover that a major worry is how to find room in the global economy beside the giants of China and India. Developing countries (without resource wealth) typically prise their way into world markets by trading on their relative abundance of labor. But of what value is abundant labor in a world where China, and prospectively India, have an apparently overwhelming advantage in labor-intensive manufacturing?

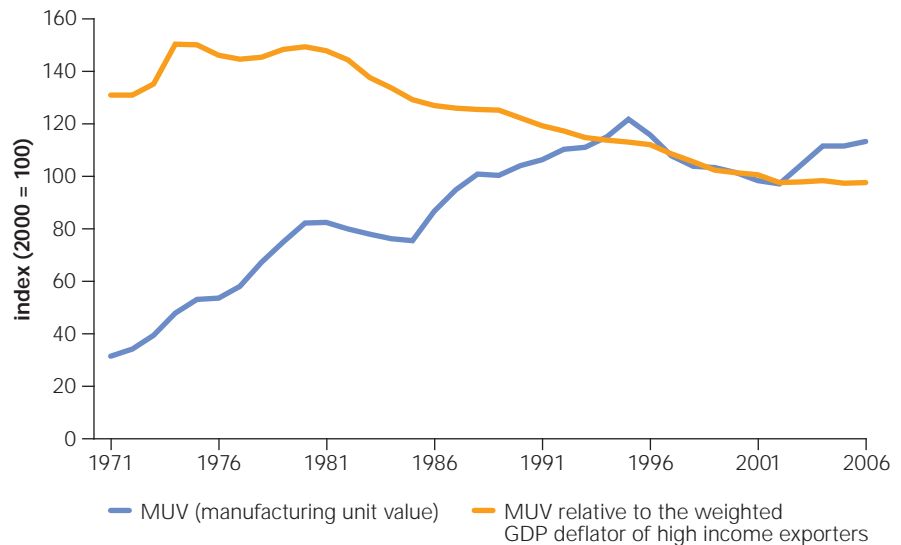
Will the growth strategy that worked well in the past 50 years continue to be an attractive option in the future? There is evidence of a potential problem. When the Multifiber Agreement lapsed at the end of 2005, the textile industry, freed from national quotas, expanded in some countries and shrank in others. This had damaging short-run consequences in Africa and parts of Latin America, while Bangladesh, Cambodia, India, Vietnam, and of course China, did well.

No country will remain hypercompetitive in labor-intensive industries indefinitely. At some point, the country's surplus labor will be absorbed and wages will rise. But with 55 percent of China's population still living in rural areas, and 72 percent of India's, the wait could be quite long.

The efficiency and scale of Chinese manufacturing has pushed down the price of many manufactured products, relative to many other goods and services in the global economy (see figure 11). (There are exceptions. The relative price of information-technology services has probably fallen even faster.)

This decline in manufacturing prices does not mean that labor-intensive growth strategies are impossible. It does, however, imply that they are more difficult to start and less effective in elevating incomes than they were in the past. This is discouraging news for countries, many of them in Sub-Saharan Africa, hoping to follow in the footsteps of the Asian tigers and others.

Figure 11 Chinese-Led Decline in Manufacturing Prices



Source: Development Economics Prospects Group, World Bank.

Paul Collier of Oxford University has argued that Europe should grant African countries trade preferences, which would help them compete despite low world prices. Steps have already been taken to implement this recommendation. The advantage of this approach is that it is temporary and timely. If successful, it is not very costly to the countries granting the preferences. If it is not successful, the costs are essentially zero. These privileges, if they work, can then be extended to a wider range of poorer countries at the early stages of export diversification and growth.

Implementing trade preferences will require more flexible “rules of origin,” the rules that determine such niceties as whether an African shirt made from Chinese yarn counts as African or Chinese. These rules often put such unrealistic demands on developing countries that they cannot avail themselves of the preferences they are given.

It should also be said that the global supply chains that run through countries like China and India represent a significant opportunity and not just a threat. China imports growing volumes of goods from elsewhere in Asia. These goods either serve its growing domestic market or feed the supply chains of which it is part. There is growing evidence that this new and growing demand can and will extend to other parts of the world.

The “Adding-Up” Problem

The rise of China and India has revived an old concern about export-led growth: the strategy may work for one country, but can it work for many?

If a number of economies all try to expand their exports of labor-intensive manufacturing, who will do the importing?

The question has arisen before, prompted by the rise of the four Asian tigers—Korea; Taiwan, China; Hong Kong, China; and Singapore—and the efforts of a wider range of countries to emulate their success. It was investigated by William Cline of the Center for Global Development in an influential series of studies in the 1980s. He has recently revisited the conclusions of his initial paper and subsequent book in the light of 25 more years of evidence.³⁸

The problem is referred to as either the “adding-up” problem or the “fallacy of composition”: what is true at the level of the individual country may not hold in the aggregate. Export-led growth may not add up for at least two reasons. One is that the glut of manufactured goods depresses prices, reducing the private and social returns to manufacturing investment. The second is that a flood of exports might provoke a protectionist response in the importing markets (largely the advanced economies), again reducing the returns to investment in these industries.

Since Cline’s initial study, the original four tigers have largely exited the most labor-intensive industries. This was quite natural, a result of the tigers becoming richer and their workers becoming more expensive. It was an example of the structural evolution that underpins growth.

As they have exited these industries, China has entered, in force. Its size and growth does appear to have pushed down the relative price of manufactured goods. But there is also evidence that rising incomes are starting to push China’s economy away from labor-intensive industries. Some of those industries are moving to other countries at earlier stages in the growth process. China has also emerged as an important market for capital goods and intermediate goods sold by the advanced economies, especially Japan, and the four tigers it displaced.

While the evolving pattern of trade is fascinatingly complex, there is little evidence that the point of entry available to the tigers and then to China has been blocked for later arrivals. The relative price of manufactured goods may have fallen, reducing the returns to investment in the sector. But in poor countries, where labor is cheap, those returns still exceed the cost of capital. So far, markets in the advanced economies have also remained open. However, as noted earlier, there are signs of mounting protectionist sentiment in a number of countries. We may not have heard the last word on this.

Just as some countries enter labor-intensive manufacturing, others graduate from it. There is no guarantee that the rate of exit will offset the rate of entry, so that the adding-up problem never bites. But this dynamic process of ascension and succession certainly helps. Cline notes that the

38 “Exports of Manufactures and Economic Growth: The Fallacy of Composition Revisited.” Paper prepared for the World Bank. 2006.

potential new entrants waiting in the wings are not that large relative to global demand. In addition, China is evolving so rapidly that it may exit some industries sooner rather than later. These two facts combined reassure Cline that the labor-intensive route is unlikely to be cut off in the near future.

Cline is however concerned about a different issue, the problem of “global imbalances.” Since the late 1990s, many rapidly growing economies have run trade surpluses. These surpluses were not huge, but there were a lot of them. Several developing economies, including China, also attracted large inflows of private capital. This combination of trade surpluses and private-capital inflows put upward pressure on the exchange rate, which in turn threatened the competitiveness of exports. To ward off this threat, central banks bought large amounts of dollars, which they added to their foreign-exchange reserves.

The net effect was a flow of capital to the United States, which financed America’s trade deficit, allowing the country to live beyond its means. This American spending has kept the world economy ticking, but it is unlikely to be sustainable. Indeed, at the time of this report, some sort of rebalancing is already underway.

Economic growth requires a source of demand as well as supply. Over the past 10 years, America has provided more than its share of that demand. If that configuration is unsustainable, and it probably is, then growth may indeed slow as it unwinds. But other sources of demand may emerge to take up the slack. The challenge is to match the decline in the U.S. deficit with a reduction in excess saving in developing countries. Coordination is required so that the target is agreed and the time horizons match.

A number of countries already have the economic mass to make a notable contribution to global demand. And they will be joined by others, if more countries succeed in accelerating growth. Thus, it is quite possible that trade and capital flows will settle into a more sustainable pattern, which nonetheless maintains the growth rates experienced in the past decade.

The Rising Price of Food and Fuel

Food

Reversing decades of low prices, the last two years have seen sharp, largely unanticipated increases in the cost of food. Because poor people devote between half and three quarters of their income to feeding themselves and their families, the steep increase in the price of rice, grains, and edible oils is tantamount to a large reduction in their income. While in the long run higher food prices are an opportunity for those who live and work in rural areas, in the short run they create a crisis of serious proportions for the urban and rural poor, especially children. The World Bank estimates that

some 100 million people may have been pushed into poverty because of the high prices of the past two years. Africa and other low-income countries are particularly vulnerable. But even middle-income countries are at risk if they lack well-developed social safety-nets.

What lies behind these steep price increases? There are many potential causes, the relative importance of which is not yet clear. The contributing factors include rising demand, shifting diets, droughts, possibly financial speculation, increased costs of key agricultural inputs such as fertilizers, and policies that encourage the use of agricultural land and output for bio-fuels. Although there is no consensus yet on the relative importance of these factors, many believe that policies that favor biofuels over food need to be reviewed and if necessary reversed.

Other longer-term factors may have been at play. Some have suggested that the low agricultural prices that prevailed until recently bred a false sense of security among governments, which led them to neglect investments in rural infrastructure, research and development, storage, and food security programs that were once a government priority. In parallel, agricultural policies in many countries encouraged nonfood over food commodities.

Whatever their cause, the high prices demand a response. The United Nations, the World Bank, and other multilateral agencies have mobilized efforts to deal with the immediate crisis by providing aid in the form of both money and food. The challenge is huge because the problem is a global one. It is unlike past episodes of starvation or malnutrition, which had local causes such as drought or conflict.

While this initial multilateral response is encouraging, the crisis has highlighted a worrying lack of economic coordination between countries, a theme to which a later part of this report returns. For example, many major food-producing countries have reacted to the crisis by restricting exports to help contain prices at home. While entirely understandable as an emergency measure, these steps exacerbate the supply shortage in the rest of the global economy, driving prices still higher. Global markets in food are becoming temporarily balkanized as a result. In the long run, this encourages countries to become self-sufficient in food, even if this is not their comparative advantage. As yet, there is little awareness of these long run risks, nor is there an adequate global mechanism for managing them.

High prices will also tempt governments to introduce price controls. These measures also are understandable and perhaps even justified in an emergency. But while governments will want to protect consumers, they also have to recognize that such interference in the price mechanism is counterproductive over the long run.

Higher prices are an important signal to domestic food producers, encouraging them to expand their supply. But not all farmers will be able to respond vigorously. Large numbers of small farmers lack the technology and the inputs needed to raise their productivity to its full potential. An

“There is no effective development strategy that doesn’t first deal with the issue of hunger. But there is a distinction between food security and food self-sufficiency. Successful economies have striven for growth that gives the broadest segment of the population sufficient purchasing power to buy adequate nutrition. Without this, we cannot hope to see healthy mothers, effective students or productive workers.”

—Danny Leipziger

effective supply response therefore requires sustained public investment in critical aspects of rural infrastructure, a stronger publicly funded research effort, and an expansion of credit to underserved farmers. A sustained effort at increasing food production must therefore play a larger part in the development strategy of most developing countries than it has done so far.

If farmers do eventually produce a much bigger crop, high food prices will subside. But to assume this is a one-time event is probably not a good idea. The global system is likely to be vulnerable to such shocks on an ongoing basis. It would therefore be wise to put better systems in place to respond to them. Countries urgently need effective social-safety nets that distribute cash to the poor or offer them employment on public-works programs. Reserves and inventories need to be accumulated to relieve temporary shortages, especially since persistent export bans cannot be ruled out. It is more efficient to build these buffer stocks on a multinational basis with suitable assurances of access and availability.

Fuel

Food staples are not the only commodities that have risen sharply in price in recent years. Crude oil prices have increased from under \$25 a barrel six years ago to over \$110 in May 2008. Many governments are understandably reluctant to allow these higher prices to pass directly to consumers. But unless buyers face higher prices they will have no incentive to economize on fuel or to shift to less energy-intensive production. Costly energy subsidies will only make societies more dependent on oil and leave governments with less money to help the poor.

One big question remains. Do these rising prices mark the beginning of a period in which natural resources, broadly defined, impose new limits on global growth? It is possible. Growth, both globally and in developing countries, may be somewhat slower than the pace set in the recent past. But it is not possible to know in advance how tight the new limits might be.

It is worth noting that knowledge and ingenuity, not oil or minerals, account for much of the value that has been added to the global economy in recent years, especially in the leading economies. If this pattern holds in the future, the amount of natural resources required to produce a dollar of GDP will continue to decline.

There are optimists and pessimists about this. But it is clear that our collective future will depend on our ability to create as much value as possible on the natural resource base that we have.

“Rapid growth remains both possible and necessary for the billions of people throughout the developing world . . . if it can be made to be inclusive, and if it can adapt to new natural-resource and climate constraints that have to be taken seriously.”

—Kemal Derviş

Demographics, Aging, and Migration

The global population is aging. That conclusion emerges clearly from the evidence and forecasts we reviewed with the help of some distinguished

demographers. This aging has two principal causes: a fall in fertility and a large increase in longevity. Infants are entering the global population at a lower rate, and elderly people are exiting it later. There are of course countries and regions that do not reflect this pattern, especially poorer countries where fertility rates remain high and diseases like HIV/AIDS have reduced longevity substantially.

Nonetheless the overall pattern is clear. The question is whether this aging will have a major impact on global growth and related variables like saving and investment. These are complex issues and this is not the place to go into detail. We confine ourselves to the major conclusions and refer the interested reader to the more detailed studies.

Aging societies account for about 70 percent of global GDP, large enough to be significant. As their populations gray, must their economic growth slow? According to simple arithmetic, if the number of working-age adults stagnates or falls, and the number of retirees increases, this must surely squeeze income per head. There are fewer people to earn the income, but no fewer people to divide it among.

But this gloomy projection assumes that the definition of “working-age” remains the same as it does today. That is unlikely to be true. In many countries and regions (including most of Europe, North America, Japan, and China), the graying of the population threatens the solvency of the country’s pension arrangements. As a result, reforms are needed to extend the working life in these countries, or to give people a different set of choices with respect to retirement, income, and consumption before and after retirement. The current fixed retirement ages cannot survive.

Thus the reforms needed to restore the fiscal viability of many national pension systems will also change the length and pattern of working lives. If these reforms are undertaken gradually, as we expect, then the research suggests there is no compelling reason to expect a major slowdown in global growth.

Several countries are moving away from a “pay-as-you-go” pension system, in which taxes are levied on today’s working generation to pay for today’s retirees. They are opting instead for more fully funded systems, in which today’s working generation accumulates financial assets that will give it a claim on future output.

As countries shift from one system to another, their saving rate may increase temporarily, adding to the “savings glut” in the world economy. That shift away from consumption could adversely affect growth for a period of time.

Aging is mostly a problem for the richer countries but does include China. Many of the world’s least developed countries have the opposite problem. Populations are young, and in countries ravaged by diseases like HIV/AIDS, the “anti-aging effect” is dramatic.

“In speaking about human progress, there is much to celebrate, but there is also much to deplore, because almost half of the world’s people are still living in poverty. We have focused on economic growth because without it the polarization between the haves and the have-nots in our world would continue to widen and remain a cause of conflict and instability.”

—Ernesto Zedillo

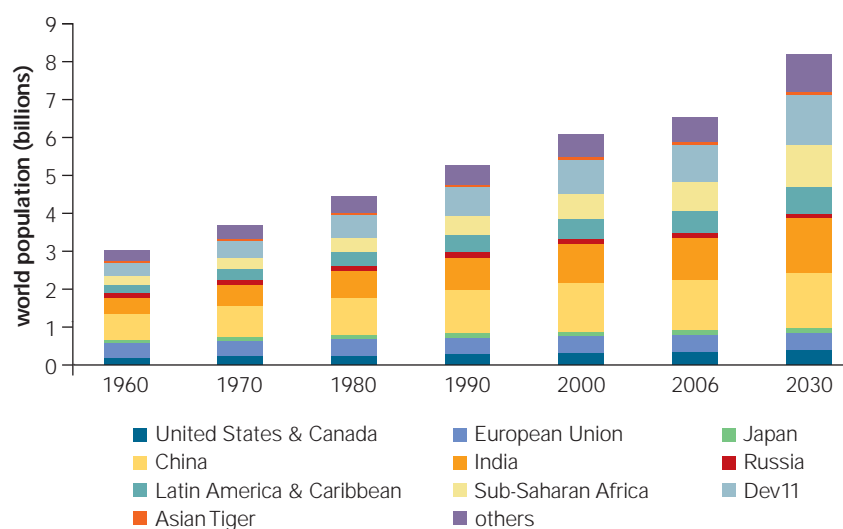
As a result, some countries have millions of young people leaving school and entering job markets that cannot absorb them. Moreover, as new entrants to the labor force, youth are often at a disadvantage to more experienced workers. The result is a worrying youth unemployment problem. It is a predicament that goes well beyond economics, posing a moral challenge and a security risk. And it is very widespread.

In some areas, even very high growth rates will not be quick enough to absorb the forecast labor supply. The numbers are striking (see figure 12). From now until 2050, the world is projected to add 3 billion people. Only 100 million will be in rich countries. One billion will be in fast-developing countries, like India and China. The remainder, which is to say two-thirds of the world’s population increase, will be added in countries that do not yet have a solid track record of growth. Thus, the supply of labor is not where the jobs are being created.

This demographic problem cannot be solved by individual countries alone. The solution will have to span national boundaries. For many countries, it is clear to us, migration for purposes of work is the only potential solution. Workers will have to move from countries where labor is abundant to countries where it is scarce. Migration for work needs international supervision to prevent abuses in the treatment of mobile labor.

Cross-border migration is a double-edged sword for developing countries. For those with excess labor supplies, it is an opportunity. The money that migrants remit back to their families and homes now far exceeds all

Figure 12 Population Growth: 1960–2006 and 2030 Forecast



Source: World Bank, World Development Indicators 2007; Forecast for 2030 from Maddison, Angus. 2001. *The World Economy: A Millennial Perspective*. Paris: OECD.

official aid. On the other hand, many countries suffer an outmigration of highly educated people whose service in government, business, and professional sectors would benefit the home country.

The problem is compounded if the migrants were educated with public funds. The migrant enjoys the private return to this education, even as his or her home country misses out on the social returns. There are techniques for dealing with this potential divergence. One example would be to offer students loans for their education, then cut the repayment amount for every year they work in their home country.

Countries can also do a lot to win back their highly educated and experienced citizens. Fast-growing economies, where opportunities abound, can attract substantial return migration. And these skilled returnees can, in turn, make a substantial contribution to a country's growth. Homecoming and fortune-hunting can form a virtuous circle.

What about permanent migration from poor to rich countries? Large-scale migration from the developing world to the developed world would increase global incomes substantially. If the migrants were younger on average than the citizens of their host countries, it would also slow the aging of the host's population. While both statements are true, the political and social complexity associated with permanent migration on a large scale make it unlikely to occur. It should not be counted on as an important driver of inclusive growth at the global level, at least not in the near future.

Global Imbalances and Global Governance

Developing economies have become a more intrusive presence in the rich world. In the past, their economic triumphs and mishaps were noted with applause or regret. But however important developing economies were locally or regionally, they did not have large macroeconomic consequences for the world economy. It was the advanced economies that accounted for the bulk of global output, income, and assets. And insofar as the world economy was governed by anyone, it was governed by policy makers in the capitals of the rich world.

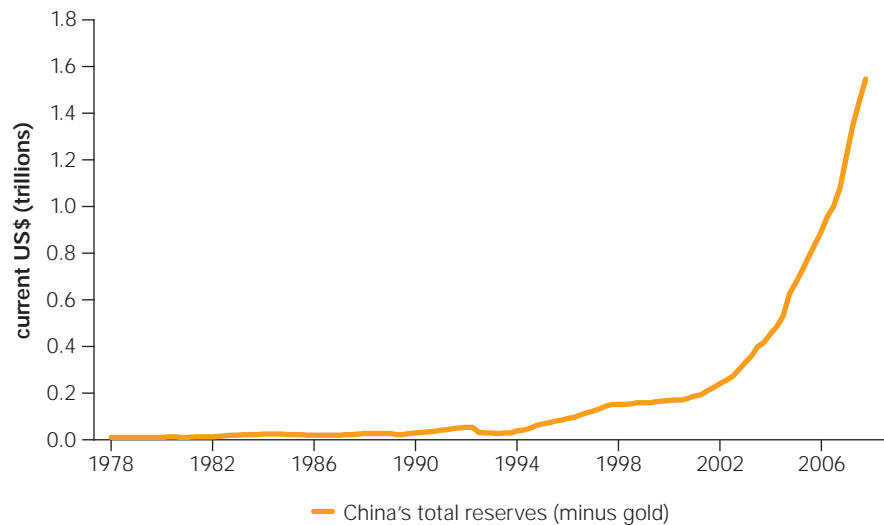
This constellation of powers is changing rapidly. The defining economic characteristic of the next few decades is likely to be the increasing size and expanding role of the developing world. China's 2007 GDP is about \$3.2 trillion (at market exchange rates, with no adjustment for purchasing power parity) and growing at over 10 percent a year. It is almost 20 percent of the size of the U.S. economy, which means that 10 percent growth in China is the equivalent of 2 percent growth in the United States or Europe. India's economy is approaching \$1 trillion. It is likely to follow China's path with a lag of about 12–15 years.

By mid-2007, reserves held by central banks were about \$4.5 trillion. China's reserves alone are about \$1.6 trillion and rising, thanks to its growing trade surplus (10–12 percent of GDP in 2007) and the heavy private capital flows it attracts (see figure 13). The holdings of sovereign wealth funds, which are on the order of \$3 trillion, are also rising because of high oil prices and governments' willingness to hold a more diversified portfolio of foreign assets. Some worry that these funds, which are owned by governments, will make their investment decisions for political reasons, not just commercial ones. There is no evidence that this has yet happened on any scale. But it is in everyone's interest to make sure it does not happen, by making the right formal agreements and institutional arrangements.

Thanks to financial innovation, the stock of financial assets has grown three times faster than global GDP since 1980. But this ingenuity has also made several markets more opaque and more difficult to regulate, as the current credit crisis (2007–08) in America and Europe illustrates. These troubles have also left the financial and monetary authorities confused about their roles. The responsibilities of central banks now extend beyond inflation to credit crunches, growth slowdowns, asset bubbles, and, in some cases, exchange rates. In the face of relatively free international capital flows, it is unclear whether central banks have enough instruments to accomplish these objectives.

Since the summer of 2007, the capital markets have begun to price risky assets less generously. But the world economy is still unbalanced. United States savings rates are still low, China's reserve accumulation has not slowed, and its trade surplus, once modest, is now rising rapidly. Currencies

Figure 13 Chinese Reserves



Source: IMF, International Financial Statistics.

that track the dollar (or the yuan) have largely accompanied the American currency on its descent, in defiance of their underlying fundamentals.

It is clear to most observers that the global economy has outrun our capacity to manage it. This creates risks for developing countries in particular, because they are most vulnerable to sudden stoppages of credit, and sudden switches of international custom or supply. Wherever they are able to do so, countries are taking precautionary steps. They are amassing substantial foreign currency reserves and limiting capital flows in various categories that pose potential risks to stability, growth, and competitiveness. In the wake of America's subprime crisis, developing countries are newly skeptical of the proposition that lightly regulated capital markets work best.

Indeed, a number of developing countries have their own potential asset bubbles to worry about. The price of real estate in Mumbai, for example, is reported to be as high or higher than that of New York or London. Housing prices in many parts of the world have become detached from rents. When asset bubbles burst, they have the potential to produce rapid slowdowns in the nonfinancial economy as well.

As the number of influential countries grows, it becomes all the more important to establish a mechanism for coordinating their policies. These economies, which now include the larger developing countries, share a joint responsibility for the stability of the global financial system. But there is no international institution that allows them to discharge this responsibility properly. The G8 excludes them by design. The International Monetary Fund has tried to accommodate them, but its "quota" reforms have redistributed voting power only marginally. To many in Asia, the IMF remains a creature of a postwar age, dominated by the European and American economies, that has passed.

An international institution that gave emerging economies their due would have two tasks. First is the duty of monitoring and keeping watch, what the IMF calls "surveillance." The international system must anticipate financial strains, imbalances, and fragilities. This would allow it to act early to reduce the chances of abrupt adjustments. The second task is to muster a timely and coordinated response to those crises it failed to anticipate, such as rising food prices.

The global economy, this report has argued, made it possible for 3 billion people to enjoy the fruits of growth in the postwar period. It also provides an economic springboard for another 2 billion people to fulfill their aspirations. No doubt the global marketplace poses risks. No doubt people need to be protected from its harsher consequences and unrulier moments. But it is also true that openness itself needs protecting. An international economy in a world of nation-states has no natural guardians. That is perhaps the biggest risk of all.