For the first time in human history, the world is close to creating a single, unified global system.


We are at the service of the world’s peoples, and we must listen to them. They are telling us that our past achievements are not enough. They are telling us we must do more, and do it better.

—Kofi Annan, Secretary General of the United Nations and 2001 Nobel laureate for Peace

Global Interdependence and the Growth of Developing-World Markets

We live in an increasingly interdependent world. For developing countries, dependence on rich nations is and has always been a stark fact of economic life. It is the principal reason for their heightened interest in promoting greater individual and collective self-reliance. At the same time, the developed world, which once prided itself on its apparent economic self-sufficiency, has come to realize that in an age of dramatically increased capital flows, increasingly scarce natural and mineral resources, global environmental threats, accelerated international illegal migration, and burgeoning world trade, it too is becoming ever more economically dependent on the developing world. In the case of the United States, for example, developing nations supply 80% of its fuel imports, 26% of its imports of industrial supplies, 25% of its imports of capital goods, and 53% of its imports of consumer goods.
TABLE 18.1 Merchandise Trade between Developed and Developing Economies, 1990 and 1999

<table>
<thead>
<tr>
<th></th>
<th>1990 ($ billions)</th>
<th>1999 ($ billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exports to LDCs from</td>
<td></td>
<td></td>
</tr>
<tr>
<td>high-income OECD countries</td>
<td>378.5</td>
<td>712.9</td>
</tr>
<tr>
<td>European Union</td>
<td>175.5</td>
<td>332.1</td>
</tr>
<tr>
<td>Japan</td>
<td>72.5</td>
<td>119.8</td>
</tr>
<tr>
<td>United States</td>
<td>100.7</td>
<td>220.2</td>
</tr>
<tr>
<td>Imports from LDCs to</td>
<td></td>
<td></td>
</tr>
<tr>
<td>high-income OECD countries</td>
<td>469.7</td>
<td>979.0</td>
</tr>
<tr>
<td>European Union</td>
<td>202.4</td>
<td>371.4</td>
</tr>
<tr>
<td>Japan</td>
<td>83.4</td>
<td>134.3</td>
</tr>
<tr>
<td>United States</td>
<td>159.8</td>
<td>416.3</td>
</tr>
</tbody>
</table>


However, rich-nation dependence does not center solely on the need for energy and raw material supplies or on the ability of key nations like Brazil, India, and China to control their environmental damage. It is also manifested in the importance of LDCs as markets for developed-country exports. As shown by Table 18.1, the United States exported more than $220 billion worth of merchandise exports to developing countries in 1999. This figure represented some 32% of its total merchandise exports of $695 billion. In 1990, the corresponding share was just 25% ($100.7 billion of $393.6 billion). Similarly, Japan exported nearly $120 billion worth of merchandise exports to developing countries in 1999, almost 27% of its total of $419.4 billion, up from 25% in 1990 ($72.5 billion of $287.6 billion). Even more strikingly, the United States now receives over 39% of all merchandise imports ($416.3 billion of the $1,059.1 billion total) from developing countries, up dramatically from less than 31% ($159.8 billion of $517.0 billion) in 1990. Japan now receives over 43% of its merchandise imports ($134.3 billion of its $311.3 billion total) from developing countries, compared with just over 35% ($83.4 billion of $235.4 billion) in 1990 and projected to rise further in the next few years as Japan shifts more industrial production offshore. These figures represent a significant share of exports and imports already, and one that will grow steadily larger during this century. (Note that figures for the European Union in Table 18.1 are not directly comparable because of changes in its composition but are also expected to rise.)

For the first time in recent history, therefore, the economic progress of developing countries has both a direct and an indirect impact on the economic performance of industrialized nations. Research suggests that this “reverse economic dependence” will continue to grow over the coming decades.
In this, the final chapter of the text, we examine some of the major manifestations of global interdependence by focusing on three key issues that are likely to dominate international economic prospects in the near future: the global environmental threat, the economic crisis in sub-Saharan Africa, and the globalization of international trade and finance. We close with a few observations on the outlook for the world economy in this age of increasing interdependence, followed by a case study of Uganda, where at long last development appears to be getting back on track.

The Global Environmental Threat: Greenhouse Gases and Ozone Depletion

In recent years, rapidly rising global concentrations of atmospheric pollutants have threatened to cause severe damage to the ozone layer as well as dramatic climatic changes such as global warming. To reduce the severity of these environmental threats, global emissions must be sharply curtailed. Responsibility for reducing emissions must be divided across the members of a tremendously diverse international community that may be remarkably different in terms of stage of industrial development, income, social structure, and political orientation. As a consequence, there is great controversy over the extent to which each government is obliged to control the emissions produced by its domestic population. The dispute is intensified by the fact that there is as yet no consensus concerning the environmental outcome of increased concentrations of greenhouse gases. However, it is becoming increasingly clear that given the potentially devastating effects of global warming, it is of paramount importance that steps be taken to limit harmful emissions.

Pollutants and Their Consequences for the Global Environment

The rapid rise in the production of pollutants has led to dramatic increases in the levels of concentration of a number of greenhouse and ozone-depleting gases. For example, global concentrations of carbon dioxide (CO₂) have increased by nearly 30% since the start of the industrial revolution, and more than half of this increase has occurred since 1960. Total gaseous chlorides, usually ozone-depleting chlorofluorocarbons (CFCs), increased in concentration by 114% in the mere 16 years between 1975 and 1990. The level of concentration of another important greenhouse gas, methane, has increased by 143% since the start of the industrial revolution, and almost 30% of this increase has occurred since 1970. Due to rising incomes and rapid population growth, buildup of these chemicals will accelerate in the future unless sweeping international reforms are implemented.

A study jointly sponsored by the World Meteorological Organization and the United Nations Environment Program predicts that if current emission trends continue, mean global temperatures are likely to rise 0.3 degrees C per decade, or 3 degrees C (5.4F) by the end of this century. Due to the delayed impact of current emissions, the study found that to stabilize CO₂ and CFC concentrations at current
levels, immediate reductions in emissions from human activities of over 60% would be required.

Most of the warmest years on record have occurred over the past two decades. The evidence may not yet be decisive on whether or not this constitutes a statistically significant pattern of warming even though the trend continued throughout the 1990s, with 1997 and then 1998 being the warmest years ever recorded. 2001 was also warmer than 1997, becoming the second-hottest year ever. Some researchers note that the current warming trends are less significant than those predicted by computer simulations based on past emission levels. Scientists are aware that some pollutants may actually slow warming by deflecting ultraviolet light back into space, so it is a matter of controversy whether we are experiencing a permanent change or a temporary phenomenon that masks the long-term implications of rising concentrations of greenhouse gases and increased ozone depletion. Though statistically there is little proof that what appears to be warming is a significant trend, the potentially catastrophic consequences of climate changes have spurred widespread cries for preventive policy. In any case, a scientific consensus has emerged that global warming of dramatic proportions will occur this century without concerted action to prevent it.

**MDC and LDC Contributions to Greenhouse Gases**

The burning of fossil fuels by automobiles and industry are obvious sources of greenhouse gases; less obvious sources include deforestation, animal husbandry, wet rice cultivation, decomposition of waste, and coal mining. A number of gases, including CFCs, carbon dioxide, methane, sulfur dioxide, and nitrous oxides, contribute significantly to the stock of greenhouse gases. However, CO$_2$ has the greatest impact, due to its relatively long lifetime in the atmosphere and the massive quantities produced globally. Sources of CO$_2$ emissions may be decomposed into two broad categories: industrial production (77% of emissions) and all others. Developing countries, with roughly three-quarters of the world’s population, produce less than one-third of industrial CO$_2$—about one-fifth if we exclude China. Because incomes and consumption are higher in the wealthiest countries, per capita emissions are also much higher. For example, the level of per capita emissions in the United States is more than twice that of the average European’s, 19 times higher than the average African’s and 23 times higher than the average Indian’s. Table 18.2 lists the 12 top polluting countries in terms of CO$_2$ emissions in 1999. Figure 18.1 shows how energy consumption varied among 16 developed and developing countries in 1995.

Figure 18.2 shows trends in carbon dioxide emissions. As seen in the top left chart, by 1997, middle-income developing countries, which now include China, were responsible for almost as large a quantity of emissions as the developed countries, while in 1980 they produced only about half as much. In addition, the emissions from low-income countries are also growing fast. On a per capita basis, high-income countries, which include many fewer people, emit substantially more than the middle-income LDCs, as seen in the top right chart. On the other hand, as the bottom chart shows, emissions per unit of production are now lower in developed...
TABLE 18.2 The Global Dirty Dozen: Annual Carbon Dioxide (CO₂) Emissions, 1999

<table>
<thead>
<tr>
<th>Country</th>
<th>Total Metric Tons (millions)</th>
<th>Metric Tons Per Capita</th>
<th>Kilograms per $ PPP of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>5,467.1</td>
<td>20.1</td>
<td>0.7</td>
</tr>
<tr>
<td>China</td>
<td>3,593.5</td>
<td>2.9</td>
<td>0.9</td>
</tr>
<tr>
<td>Russia</td>
<td>1,444.5</td>
<td>9.8</td>
<td>1.4</td>
</tr>
<tr>
<td>Japan</td>
<td>1,204.2</td>
<td>9.6</td>
<td>0.4</td>
</tr>
<tr>
<td>India</td>
<td>1,065.4</td>
<td>1.1</td>
<td>0.5</td>
</tr>
<tr>
<td>Germany</td>
<td>851.5</td>
<td>10.4</td>
<td>0.5</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>527.1</td>
<td>8.9</td>
<td>0.4</td>
</tr>
<tr>
<td>Canada</td>
<td>496.6</td>
<td>16.6</td>
<td>0.7</td>
</tr>
<tr>
<td>South Korea</td>
<td>457.4</td>
<td>9.9</td>
<td>0.6</td>
</tr>
<tr>
<td>Italy</td>
<td>424.7</td>
<td>7.4</td>
<td>0.3</td>
</tr>
<tr>
<td>Mexico</td>
<td>379.7</td>
<td>4.0</td>
<td>0.5</td>
</tr>
<tr>
<td>Ukraine</td>
<td>370.5</td>
<td>7.3</td>
<td>2.1</td>
</tr>
</tbody>
</table>


countries than in either middle- or low-income LDCs. Improvements in this type of environmental efficiency of production will have to be accelerated even more, however, to compensate for the increased emissions that result from economic growth. Despite the dramatic improvement in the developed-country emissions per dollar of GDP, total emissions still rose.

Though developing countries still account for a relatively small proportion of industrial CO₂, they produce virtually all of the CO₂ in the second category, generally resulting from the burning of vegetation to clear new land. These emissions from “land use change” are calculated under the assumption that all the CO₂ in vegetation is released into the atmosphere upon its removal. It is estimated that deforestation accounts for roughly 25% of all CO₂ emissions worldwide. Of potentially equal or greater significance is the fact that deforestation leads to the destruction of a vital source of atmospheric oxygen. Because trees consume carbon dioxide and release oxygen during the process of photosynthesis, the tropical rain forests represent an important mechanism through which the ecosystem regenerates itself. Clearing the rain forests will reduce the absorptive capacity of the environment for CO₂. Thus it is through changes in patterns of land use that the developing countries currently make their largest contribution to global concentrations of greenhouse gases. This fact has served to intensify pressures on LDC governments to limit the destruction of rain forests. Although preserving forests might be in everyone’s long-term interests, in the short term a number of international and domestic economic factors make it difficult to do so.
One factor is falling commodity prices and the need for foreign exchange. The bulk of the remaining rain forests are coincidentally located in a number of the most heavily indebted countries, whose export earnings have suffered greatly as a result of low commodity prices. To raise sufficient foreign exchange to meet debt-service requirements, these countries must increase commodity exports at a time when demand is slack and market values are low. Because the price elasticity of demand for LDC commodities is also generally quite low, attempts to expand international sales further depress commodity prices, confounding efforts to raise sufficient foreign exchange. Because timber exports are an important source of revenue for a number of highly indebted countries, falling terms of trade may actually increase the rate of extraction and force prices far below the true social value of standing forests.

Furthermore, falling commodity prices threaten the profitability of many export industries. As a result, LDC governments desperate for foreign exchange have frequently subsidized the production of exports. Occasionally these schemes have done tremendous damage to the environment while generating large losses for domestic governments, as is the case for many publicly subsidized cattle farms and timber concessions.

A second complicating factor was economic stagnation during the 1980s, which led to patterns that in many cases persisted after the debt crisis was declared in remission (Chapter 14). The slowdown experienced in the industrialized countries
during the 1980s was magnified in many LDCs. In the heavily indebted tropical countries with rain forests, labor force growth outpaced economic growth for the first time in 40 years. This fact, coupled with a worsening of disparities in the distribution of land, led to falling urban wages, slowing rural-urban migration, and rising numbers of landless rural workers. In Brazil, the agricultural labor force grew by 4% between 1981 and 1984, compared to 0.6% between 1971 and 1976. Rural wages fell by almost 40% in real terms between 1981 and 1985. Even though rain forest soils have only marginal cultivability, they represent the sole form of livelihood for many of the rural poor. Thus efforts to prohibit the clearing of rain forest land for agricultural use are likely to fail unless governments demonstrate a commitment to bring about extensive land reform and create alternative rural economic opportunities.

By providing additional, albeit marginal and only temporarily cultivable land, the rain forests may stave off political confrontations which might otherwise precipitate reforms. A number of LDC governments have encouraged the cultivation of tropical forests through the transfer of land titles to the people clearing the property or by actively moving households from impoverished rural and urban areas.
through resettlement or transmigration programs. These policies may provide a
short-run alternative to pursuing costly but more fundamental development re-
forms, especially land reform. Though the latter are more desirable from a long-
term perspective, officials experiencing acute revenue shortages and pressures to
reduce government spending may be unwilling or unable to implement develop-
ment-oriented programs. Resettlement is also politically easier because any suc-
cessful long-term solution to the problems of landlessness and poverty generally
requires some type of land reform. Governments that prevent the settlement of
rain forests but fail to provide effective rural development programs are likely to
encounter rising political instability.

A third impediment to saving the forests is the developing world’s dependence
on traditional fuels. The vast majority of wood cut is used for home heating and
cooking. Timber accounts for 89% of all fuel in Africa, 70% in South America, and
74% in Asia. For the poorer, non-oil-exporting LDCs, traditional fuels are the pre-
dominant source of energy. Banning the use of timber for firewood would require
increasing expensive foreign imports of fossil fuels. The transition away from tradi-
tional fuels would increase foreign-exchange outflows and necessitate that low-
priced alternative fuels be made readily available to small family farmers who de-
pend on the forests for their daily energy needs.

Rain Forest Preservation as a Public Good: Who Should Pay?

Each of these problems must be addressed in order to halt permanent destruction
of rain forests. Long-term solutions will involve increasing the accessibility of
cheap alternative fuels, managing sustainable timber schemes, and providing eco-
nomic opportunities for the masses of impoverished peoples now resorting to
clearing large tracts of fragile rain forest land. Each program will require careful
planning, technical expertise, and sustained management. Like most investments
designed to yield enduring rewards, initial outlays are likely to exceed short-term
gains. Thus preservation of the remaining rain forests will, at least temporarily, in-
tensify existing hardships in highly indebted countries, unless revenue shortfalls
are met with external funds.

In our discussion of public goods in Chapter 11, we found that in the absence of
government intervention, the free market is likely to provide a suboptimal level of
resource preservation (see Figure 11.3). We can thus conclude that when foreign
countries are allowed a free ride—that is, allowed to benefit from rain forest preser-
vation without contributing to it—deforestation will continue at an undesirable
pace. To reduce the resulting inefficiencies, the model would suggest lowering the
relative price per unit of protected forest for the LDC and increasing it for the out-
side beneficiaries. For the latter, this would simply entail the contribution of fees
earmarked for the preservation of rain forests. For LDCs, there are a number of
ways in which the price of forest conservation can be lowered.²

One would be improved efficiency of existing rain forest use. Much of the timber
that is now burned to open land for cultivation could be harvested for financial
gain. For example, it is estimated that Brazil loses $2.5 billion annually in the burn-
ing of precious rain forest timber. Sustainable timber production for fuel or export
can be achieved through the restriction of cutting cycles to 30-year intervals, and
the careful maintenance of new growth. It is generally impossible to regenerate a
rain forest that has been clear-cut, so proper maintenance and supervision of log-
gging are necessary. More careful oversight of timber concessions by LDC govern-
ments can prevent clear-cutting, reduce careless destruction of uncut trees, and in-
crease the efficiency of revenue collection from concessions that are usually owned
by domestic elites or large multinationals. A number of management projects of
this sort, supported by multilateral development banks, are already under way.
However, as yet less than 0.1% of tropical forests are sustainably managed.

Another boon to forest conservation would be development of markets for alter-
native rain forest products. Some of the costs of rain forest preservation can be off-
set by developing markets for sustainable forest products. Recent studies have in-
dicated that the sale of products such as meats, nuts, fruits, oils, sweeteners, resins,
tannins, fibers, construction materials, and medicinal compounds may provide a
more lucrative and sustainable stream of income from tropical forests. Because
their extraction is labor-intensive, more jobs are created for local populations, in
turn creating alternatives to slash-and-burn cultivation of rain forest land. In addi-
tion, there is a broader distribution of the benefits from natural resources. How-
ever, for such schemes to succeed, developed-country markets must be made ac-
cessible to developing-country producers. By opening their own markets to
nontimber LDC exports and alternative rain forest products, developed countries
can reduce the dependence of timber-rich, capital-poor countries on the destruc-
tion of their forests for quick earnings of foreign exchange.

Debt relief would also help. Because the shortage of foreign exchange is greatly
exacerbated by external debt burdens, some form of debt relief will be necessary to
reduce dependence on the exploitation of remaining forests. This is especially im-
portant in sub-Saharan Africa. Debt-for-nature swaps effectively convert foreign-
denominated debt held by a foreign public or private agency into domestic debt
that is used to finance the management of natural resources. This debt may be tied
to the preservation of forests, and interest payments may be used to provide
salaries and maintenance costs for conservation efforts. Though debt-for-nature
swaps offer a promising approach to reducing rain forest destruction, there are
many obstacles to their widespread use (see Chapter 11). Consequently, the area of
land now protected by the schemes is still very small.

Finally, forests could be saved through appropriate aid packages. Expanded aid
from the rich countries for the support of programs to alleviate landlessness and
poverty can help eliminate the socioeconomic causes of tropical deforestation. At
the same time, it would be useful to completely halt unilateral and multilateral
(mostly World Bank) subsidization of the environmentally destructive cattle ranch-
ing and timber industries.

**Searching for Solutions: The 1992 and 1997 Summits**

In June 1992, the second United Nations Conference on Environment and Devel-
opment (UNCED)—the so-called Earth Summit—was held in Rio de Janeiro. The
first meeting had been held in Stockholm in 1972. The Rio meeting brought to-
gether the leaders of 118 industrial and developing nations along with hundreds of
nongovernment environmental organizations and tens of thousands of concerned
individuals. The task was to find ways to cope with the increasing dangers of permanent environmental damage resulting from the buildup of greenhouse gases (especially CO₂) leading to fears of global warming, the inexorable loss of biodiversity (diverse plants and species) resulting in part from the destruction of tropical rain forests, and the concerns over the environmental consequences of rapid population and industrial growth in the developing world.

Although the vast majority of global environmental damage represents the cumulative and contemporary impact of Western industrialization, the focus of much of the Rio conference was on the developing world. With almost 100 million new births every year and major rural-to-urban population shifts under way, the developing world has the potential not only to add to current environmental degradation but ultimately to tip the balance against human survival. The principal concern of the developed world (often unexpressed) was that successful economic growth in the heavily populated developing world could bring with it such negative environmental externalities to the global commons that everyone would ultimately suffer—rich and poor alike. For their part, representatives of developing nations feared that once again they would be coerced into bearing the major burdens of adjustment, that in some way the South’s continued poverty was necessary for maintaining the North’s prosperity. However, unlike the 1980s debt crisis, when LDCs had to bear almost all of the pain of IMF and World Bank stabilization and adjustment programs, in the case of the environment, developed-country lifestyles could be directly affected by LDC policy decisions. Such environmental interdependence allowed LDCs successfully to press their demands for more international financial and technical assistance to enable them to pursue environmentally sustainable development objectives. Although the major donor nation, the United States, made no specific additional aid commitments at the Rio conference, the 12 European Community (EC) countries indicated a willingness to offer $3 billion to $5 billion in environmental aid between 1993 and 1997, and Japan planned to increase its environmental aid to developing countries from $800 million per year in 1992 to $1.4 billion annually between 1993 and 1997. In addition, a developed-country donor group (including the United States) decided to create a new fund for the World Bank’s International Development Agency (IDA) that would provide low-interest environmental loans to the world’s least developed nations. Finally, the North agreed to double, and perhaps eventually triple, the $1.3 billion World Bank’s Global Environment Facility (GEF) established in 1989 to finance LDC environmental projects.

The Rio summit also produced Agenda 21, a nonbinding 800-page blueprint to clean up the global environment and encourage environmentally sound development. Adopted by consensus, Agenda 21 emphasizes the following six areas of international activity.³

1. Allocating development assistance to programs focusing on poverty alleviation and environmental health such as providing sanitation and clean water, reducing indoor air pollution resulting from the burning of firewood, and meeting basic needs

2. Investing in research and extension services to reduce soil erosion and permit more environmentally sensitive agricultural practices
3. Allocating more resources to family planning and to expanding educational and job opportunities for women so that population growth can be reduced

4. Supporting LDC governments in their attempts to curtail or modify projects that harm the environment

5. Providing funds to protect natural habitats and biodiversity

6. Investing in research and development on noncarbon energy alternatives to respond to climate changes and reduce greenhouse gases

A follow-up to the Rio summit was held in Kyoto, Japan, in December 1997. The Kyoto summit focused on carbon dioxide emissions and the problem of global warming. A treaty was signed that asked Western nations to reduce their greenhouse gases to pre-1990 levels by the year 2010. Developing countries did not agree to do anything, even though they will soon pass the West as sources of greenhouse gases. China, the second biggest polluter in the world, denounced the entire proceeding and would not sign the accord. In any event, the agreement was not binding and included no enforcement mechanism, only a pledge to consider the terms of the treaty and to discuss them at a later meeting. In sum, not much was accomplished at Kyoto.

However, in November 2001, representatives of 180 countries agreed on methods to enforce the Kyoto accord. Essentially every country in the world except the United States participated in the agreement on ways to ensure compliance with the Kyoto treaty. The agreement calls on the industrial countries to reduce greenhouse gases, especially carbon dioxide from industry and cars. Each country must reduce emissions by an average of 5.2% below 1990 levels by 2012. International observers will monitor compliance, and penalties will be imposed on countries that fail to achieve their targets. The United States complained that, among other things, 1990 was a base year that was particularly unfair to its interests. Although some of the objections were broader, this complaint at least suggests that U.S. involvement may be achieved with additional negotiations at some point in the future.

Analysts predict that global environmental concerns will continue to increase throughout the century. Even if the new treaty is enforced, total global emissions of carbon dioxide will still increase by some 1.5 billion tons per year by 2010. If the accord is not ratified or enforced, research suggests that global warming could become dangerous as early as 2050.

With the focus shifting from simple economic growth to sustainable development and with worries mounting that the pattern and style of LDC development could lead to serious problems for the industrialized world, a new and more permanent form of global interdependence has emerged, one in which LDC leverage on international economic and political decisions is greater than at any time since the OPEC oil price increases of the 1970s. It is hoped that the common interest of all nations in a cleaner and more livable world will generate a new spirit of cooperation between rich and poor countries. Developing countries must be allowed to pursue their primary objective of raising the levels of living of their rural and urban poor, while both rich and poor nations alike must make every effort to reduce the damage that each causes to the earth’s common heritage of land, sea, and air.
The Economic Crisis in Sub-Saharan Africa

While most of the developing world has registered significant development progress since 1990, with substantial growth and human development even in South Asia, one region of the world stands out as a sad exception: sub-Saharan Africa. There, a “lost decade of the 1990s” has been added to the preceding “lost decade of the 1980s,” which had also afflicted most of Latin America and many other developing countries. By the early twenty-first century, no clear sign of a turnaround had yet been seen.

At the heart of the African dilemma is an inexorable economic decline, a drop in per capita incomes, rapid increases in population, the loss of export revenues, the curtailment of foreign investment, the destruction of fragile ecosystems, and the inability of many countries even to feed their people and meet other basic human needs. A joint report by the International Institute for Environment and Development and the World Resources Institute expressed it well:

Sub-Saharan Africa poses the greatest challenge to world development efforts to the end of the century and beyond. Recurrent famine there is only the symptom of much deeper ills. Africa is the only major region where per capita income, food production, and industrial production have declined over an extended period: the only developing region where development appears to be moving in reverse. . . . In recent years, Africa’s farmers and herders, its soils and forests, have been chasing each other down a vicious spiral of environmental degradation and deepening poverty. Conventional development efforts by donors and governments have largely failed to halt the spiral, indeed in some cases have aggravated it.4

The specific quantitative dimensions of the economic predicament in sub-Saharan Africa are vividly portrayed in Table 18.3. Between 1980 and 1990, per capita output fell by 42.5%, per capita consumption (a more significant measure of hu-

<table>
<thead>
<tr>
<th>Economic Indicator</th>
<th>1980</th>
<th>1990</th>
<th>Change (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per capita output ($)</td>
<td>582</td>
<td>335</td>
<td>−42.5</td>
</tr>
<tr>
<td>Per capita consumption</td>
<td>465</td>
<td>279</td>
<td>−40.0</td>
</tr>
<tr>
<td>Investment (% of GDP)</td>
<td>20.2</td>
<td>14.2</td>
<td>−29.7</td>
</tr>
<tr>
<td>Exports of goods ($ billions)</td>
<td>48.7</td>
<td>31.9</td>
<td>−34.5</td>
</tr>
<tr>
<td>Per capita food production ($)</td>
<td>107</td>
<td>94</td>
<td>−12.2</td>
</tr>
<tr>
<td>Total external debt ($ billions)</td>
<td>56.2</td>
<td>147</td>
<td>+162</td>
</tr>
<tr>
<td>Poverty (% below poverty line)</td>
<td>N.A.</td>
<td>39.6</td>
<td>—</td>
</tr>
</tbody>
</table>


Note: Amounts are expressed in U.S. dollars at 1980 prices. N.A. = not available.
man well-being) fell by 40%, domestic investment declined by 29.7%, exports fell by 34.5%, per capita food production dropped by 12.2%, and the total external debt rose by 162% to a level as large as the region’s total GNP!

After such a calamitous decade, many Africans hoped desperately for a turn-around; outside observers widely predicted that the 1990s would bring renewed development. While signs of renewal appeared for a time, and the experience was not as bad as that of the 1980s shown in Table 18.3, still, by 2002 hopes had dimmed. In the 1990–2000 period as a whole, GDP rose at a rate of 2.4% per year. But with population growth continuing at an extremely high average annual rate of 2.6%, output per person continued to fall, and with it personal incomes. And with the slowing global economy after 2000, concerns were growing.

Debt service in 1999, was equal to 14% of total export earnings. Africa’s poverty rate rose during the 1980s and 1990s to more than 46%, or 291 million people; over the same period, real wages declined by over 30% (in some countries, the drop was in excess of 50%). Employment also suffered, with open unemployment growing at an annual rate of 10% in the second half of the 1980s. By 1994, open unemployment affected over 32 million Africans, and severe underemployment grew by another 33 million to a total of 95 million people.

From a global perspective, sub-Saharan Africa has fallen steadily behind the rest of the world. Its share of global GNP dropped from about 2% in 1960 to 1% in 2000, even though it has 11% of the world’s population. In the 15 years between 1985 and 2000, its real GDP growth rate consistently lagged behind Asia and Latin America. Its share of global trade fell from 3.8% in 1970 to less than 1.5% in 2000. Steep drops in commodity prices cost the continent more than $80 billion in lost export earnings in 1985–1994 alone. Its share of LDC private direct investment dropped from 25% in 1970 to 4% in 2000. In 1999, Latin America attracted $174 a head in direct foreign investment, while Africa received just $12 a head.

It is in the social and human realms, however, where the toll of Africa’s current crisis is most acutely felt, as we saw in Chapter 9. Severe cuts in health and educational expenditures—in part due to IMF and World Bank lending preconditions—have resulted in sharp declines in school enrollment and disturbing increases in malnutrition and maternal and child mortality. For example, by 1989 there were 150 million severely malnourished people in Africa—70 million more than in 1975 and the FAO projected in 2000 that this figure will reach 300 million by 2010.

In 1990, 27% of African children were underweight, 53% were stunted, and 10% were wasting. The under age 5 mortality rate in 1999 was the highest in the world at 159 per 1,000. But the saddest and most disturbing health phenomenon to hit Africa in the 1990s was the enormous impact of the spread of the human immuno-deficiency virus (HIV), which causes AIDS. The rapid spread of the AIDS virus now threatens to wreak havoc with Africa’s people. The World Health Organization (WHO) has estimated that in excess of 25 million Africans were infected with HIV in 2000 (over two-thirds of the world’s total). About 9 million women are infected, and the rate of increase continues to grow. In 1996, AIDS lowered life expectancy by 7 years in South Africa, by 11 years in Burkina Faso and the Ivory Coast, and by 12 years in Zimbabwe. Life expectancies are projected to continue falling substantially in the region (see Chapter 9).
During the first decade of the twenty-first century, several million children will be born with the AIDS virus, many of whom will become “AIDS orphans” without home or family. The ultimate impact of this tragedy on the quality of Africa’s human resources is likely to be substantial and to last for generations.

The causes of the African dilemma are many and varied. Some were beyond its control (drought, depressed commodity prices, foreign capital withdrawal, diminished foreign aid); others can be ascribed to poor government policies (neglect of agriculture, inefficient state-owned enterprises (SOEs), lack of concern with promoting export growth). Surely rapid population growth, the highest in the world, must be also considered. Whatever the causes, if the disasters of recent decades are not to be repeated, coordinated efforts by African governments and international assistance agencies will be required to reverse the decline. More emphasis must be placed on agricultural and rural development, with enhanced price and investment incentives for small farmers being accompanied by institutional and structural reforms designed to improve the marketing and distribution of agricultural produce. Concern with preventing further environmental deterioration and desertification must be increased. Inefficient SOEs and ossified public-sector bureaucratic procedures must be addressed, and managers must be made more accountable for resource allocation and investment decisions. Privatization possibilities should be pursued where financially feasible and socially acceptable (e.g., with due regard to issues of income distribution and dualistic development). The draconian cuts in health and educational expenditures during the 1980s and 1990s must be reversed, and financial resources (both public and private) must once again flow back to African nations. Finally, major debt relief and population stabilization programs must be put in place, the former taking the form of significant debt cancellation (most is publicly owned) and the latter focusing on reducing the demand for children through poverty alleviation and the promotion of women’s economic progress, as well as providing more accessible and effective family-planning programs. Independent observers such as Jeffrey Sachs of the Center for International Development at Harvard University have argued that the resources to be made available under the enhanced HIPC (highly indebted poor countries) World Bank-IMF initiative are far too small and have too many strings attached.

A difficult period lies ahead for sub-Saharan Africa. On the positive side, many African countries were beginning to stem the decline in the early twenty-first century and some were beginning to show accelerating economic growth. However, by mid-2002 famine loomed in Southern Africa. If development is going to succeed, Africa will be its severest test case. If it fails, not only will the 660 million Africans south of the Sahara be its victims, but directly and indirectly, the wealthy nations of the industrialized world will have to bear a major responsibility for this failure, as well as share its health and environmental consequences.

**Globalization and International Financial Reform**

In recent years, a remarkable globalization of the world economy has taken place. The increasing integration of national economies into global markets promises to alter dramatically the volume and character of international resource flows. Be-
cause the expansion of global trade is essentially constrained by the domestic and international (IMF and World Bank) banking sector, which provides financing for international transactions, the increasing size, competitiveness, and diffusion of international financial markets has the potential to draw low-income economies into the economic mainstream. For developing countries experiencing severe liquidity problems that constrain investment, limit the importation of inputs and replacement parts, and raise the level of risk associated with trade contracts, increased integration into expanding international financial markets could greatly improve prospects for economic flexibility and growth.

However, it is unclear whether or not low- and middle-income LDCs will in fact benefit from the globalization of international markets. For a variety of reasons, the full participation of many poor nations in the global economy is yet to be realized. At a time when national markets are opening up, it is ironic that some global financial markets remain restricted. In fact, despite the 1994 GATT agreement, protectionism against LDC products has greatly increased, and the real rate of interest paid by developing countries on borrowed capital is on occasion more than 400% greater than that paid by their industrialized counterparts. The globalization of international financial markets thus reduces the transaction costs of trade for participants with access to international credit while increasing the relative disadvantage of those excluded from the benefits of financial globalization.

But even in cases where developing countries are directly involved in the physical, technological, and financial globalization process, the implications for long-term development are ambiguous. Money and information can now be instantly transmitted from one corner of the earth to another. Multinational corporations are creating global factories with both horizontal and vertical integration spread over many countries. And a small group of newly industrializing countries in East Asia, now expanded to include China, has captured the lion's share of LDC international flows of goods and services.

The effects of such globalization are threefold. First, the power and influence of individual nation-states, particularly many of those in the developing world, is weakened. LDCs that are not linked in some way to the new dollar-, yen-, or euro-dominated regional trading blocs in North America, the Pacific Rim, or Europe, respectively, face particularly difficult times ahead. Second, there are increased risks of financial market instability (as evidenced by the Mexican crisis of 1995, the Asian crisis of 1997, and the crises in Turkey and Argentina in 2001), access to global markets may become more difficult for low-technology producers, and the effects of economic growth in the North may no longer automatically benefit the poorest nations of the South. Indeed, the nature of past North-South relationships may have hindered the performance of many LDCs in the international arena. Third, a striking manifestation of the growing inequality of nations in an era of rapid global transmission of information via satellite is the tremendous increase in international illegal migration from the poor South to the industrialized North. Just as capital has become more internationally mobile, so too has labor. But unlike the movement of capital, the movement of unskilled Southern labor across Northern borders is not always a welcomed occurrence. In fact, some citizens of the industrialized world view this phenomenon as a threat to their economy, not to mention their culture and “way of life.” As a result, “human smuggling”
has taken a terrible toll in lives lost and other suffering at the hands of corrupt profiteers.

If the twenty-first century is to hold greater promise for the many LDCs that have been unable to share in the fruits of global progress, effective management of new global challenges—in money and finance, in environmental matters, and in resource, labor, and technology flows—will require reforms to the international system. Among the changes often mentioned are the following:

1. A reduction in the debt-service burdens of the LDCs least able to afford continued austerity measures, especially in sub-Saharan Africa.

2. The creation of new LDC-funding sources, such as a tax on international currency transactions like the so-called Tobin tax to curb the speculative inflow and outflow of foreign capital—a central ingredient in the 1997 Asian currency crisis. Another suggested measure is to adopt something like the current successful policy of Chile requiring portfolio investors to deposit 30% of their investments in a one-year (or longer-term) interest-free account with no withdrawal privileges. This policy has spared Chile the “hot money” flows experienced by Asian and other Latin American nations.

3. The creation of new international institutions, such as a world central bank, to help stabilize global economic activity, promote global financial stability, and assist the economic development of poorer nations. Such an entity could act as a lender of last resort to financial institutions and create new forms of liquidity.

4. Reform of the two major existing institutions for global economic growth and stability, the IMF and the World Bank.

Regarding this last point, the IMF will need to exhibit greater flexibility in its conditionality requirements and focus more on reviving growth in debt-laden countries and less on imposing a fixed menu of stabilization measures. Developing countries need a greater voice in its voting structure and policymaking bodies and greater access to expanded quantities of special drawing rights.

The World Bank, like the IMF, adopted an inflexible program of structural adjustment loans in the 1980s that on balance may have done more harm than good to many poor countries. The bank, which was established to borrow the savings of rich nations and lend them to poor countries to finance many of those projects (physical infrastructure, health and education facilities, etc.) that private investors would not undertake, has in recent years actually withdrawn resources (in excess of $500 million in the early 1990s) from poor nations.

The World Bank has two lending facilities. The International Bank for Reconstruction and Development (IBRD), the larger of the two, now offers only floating-rate loans linked to global interest rates. This is a departure from the original intention of the IBRD, which was to cushion LDCs against interest rate fluctuations and partially subsidize their loans with its own financial strength and the backing of its industrial-country contributors. The second lending facility, the International Development Association (IDA), does provide concessional loans (interest-free for 40 or 50 years) to countries with a per capita GNP below $925 in 1997. However, the IDA’s share of total World Bank lending is only 25% to 30%.
In its 2000 report, the International Financial Institutions Advisory Commission (IFIAC) of the U.S. Congress concluded that the IMF, World Bank, and the regional development banks needed thoroughgoing reform. The Commission voted unanimously that the IMF, World Bank, and regional development banks “should write-off in their entirety all claims against heavily indebted poor countries that implement an effective economic and social development strategy in conjunction with the World Bank and the regional development institutions.” They proposed that the World Bank be changed in form to a development agency, charged with making grants to low-income countries rather than loans. This would enable the World Bank to concentrate its knowledge on development activities rather than on loan repayment. The IFIAC argued that there were sufficient funds from the World Bank’s capital endowment to already accomplish much, but that increases in funding were needed. These conclusions have been highly controversial. For example, it is argued that while middle-income countries generally have the resources to address absolute poverty, because of the nature of the political process this does not happen without outside funding in the form of World Bank loans. No doubt the report will be the basis of continued discussions on reform of these significant institutions. (For more details on their proposals for the World Bank, see Appendix 14.1.)

After a decade of an almost messianic mission of preaching market-oriented stabilization and structural adjustment reforms, both the IMF and especially the World Bank have once again begun to focus on poverty alleviation by adopting greater flexibility in their programmatic activities. The challenge for the future is to increase their flow of resources from North to South and to adapt their lending to the real development needs of recipient nations. These reforms would help ensure that the developing world becomes integrated into global markets and that it benefits from expanding world trade.11

Summary and Concluding Remarks

Our discussion in this final chapter has touched on some of the key economic and noneconomic manifestations of the growing globalization of trade and finance and the increasing interdependence of nations. We have seen that whereas three decades ago this interdependence was perceived primarily in terms of the dependence of poor nations on rich ones, today the situation is different. LDCs are now the fastest-growing export markets for developed countries. With rising concerns about unpredictable energy prices and ever-greater mineral scarcities, as well as fears of global environmental damage, ethnic conflicts, and floods of illegal immigrants pouring across their borders, developed countries now understand that their future welfare depends increasingly on the economic performance and social achievements of the developing countries. Let there be no misunderstanding, however. Poor nations are now and will remain considerably more vulnerable to the economic events and policies of rich nations than vice versa. The special and tragic plight of sub-Saharan Africa bears witness to the particular dependence and vulnerability of the least developed countries.
The crucial question for the new century is whether this globalization of the international economy and the new economic interdependence among all nations will lead to greater cooperation or more conflict. Some experts view the period ahead as one of great promise; others are less confident. Some even foresee major problems and disruptions with potentially tragic consequences.\textsuperscript{12}

As a result of the oil and resource scarcities of the 1970s, the debt crisis of the 1980s, and the globalization of trade, the environment, and finance of the 1990s, industrialized countries must understand that the economic futures of both groups of nations are intimately linked. No longer can rich nations totally dominate the established international order without provoking harmful repercussions. Cooperation becomes essential. In the final analysis, therefore, the only feasible outcome of the movement toward globalization and international interdependence is one in which everyone wins or loses. In the interdependent world of the twenty-first century, global development can never again be a zero-sum game.

With each passing year, therefore, rich and poor nations alike share an increasingly common destiny. The world community must finally realize that a more equitable international economic order is not only possible but even essential. Such a new order should be based on the fundamental principle that each nation's and each individual's development is intimately bound to the development of every other nation and every other individual. The future of all humankind is linked more closely today than ever before. All indications are that it will become even more so in the coming century. Let us hope, therefore, that reason and good sense will prevail so that the developed and developing worlds can truly become part of One World—forged together by a common economic destiny and guided by the humane principles of peace, friendship, and mutual respect.
**CASE STUDY**

The Economy of Uganda

Geographic, Social, and Economic Indicators

<table>
<thead>
<tr>
<th>Capital: Kampala</th>
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<tr>
<td>Area: 235,885 km²</td>
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<tr>
<td>GDP per capita (average annual growth rate): 4.1% (1990–2000)</td>
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<tr>
<td>Agriculture as share of GDP: 44% (2000)</td>
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<tr>
<td>Exports as share of GDP: 6% (2000)</td>
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<tr>
<td>Under age 5 mortality rate (per 1,000 live births): 162 (1999)</td>
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<tr>
<td>Females as share of labor force: 48% (1997)</td>
</tr>
<tr>
<td>Illiteracy rate (age 15+): Male 26%, Female 50% (1996)</td>
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<tr>
<td>Human Development Index: 0.435 (low) (1999)</td>
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</table>

Uganda represents both the tragedy of Africa and its hope. Few countries have experienced the kind of state-sponsored terrorism that Uganda did during the reign of Idi Amin in the 1970s or the degree of economic devastation that was its consequence. As Uganda begins to turn its economy around with promising results for the mid-1990s (a GDP per capita growth rate of 4.1% in 1990–2000), it must also cope with a new and more frightening kind of terror: the spread of AIDS. The most recent statistics indicate that fully 86% of Ugandans in urban high-risk groups have the disease, along with 21% of all women who attended urban prenatal health clinics in 1995. As a result, average life ex-
pectancy has dropped from 47 in 1990 to 42 in 1999. And so the future is both promising and challenging, filled with hope and worry.

Uganda lies astride the equator in the center of Africa, a landlocked country bounded on the east by Kenya, on the south by Tanzania and Rwanda, on the west by the Democratic Republic of Congo, and on the north by Sudan. Uganda's population is predominantly rural, and its density is highest in the southern regions. Africans of three ethnic groups—Bantu, Nilotic, and Nilo-Hamitic—make up most of the population. Of these groups, the Bantu is the largest and includes the Baganda, which has more than 1 million members living on the most fertile land.

Until 1972, Asians constituted the largest nonindigenous ethnic group in Uganda. That year, the regime of Idi Amin expelled 50,000 Asians, who had been engaged in trade, industry, and various professions. Since Amin's overthrow in 1979, Asians have slowly returned. Small numbers of Asians and about 3,000 Arabs of various national origins currently live in Uganda.

Uganda’s economy has great potential. Endowed with significant natural resources, including ample fertile land, regular rainfall, and mineral deposits, it appeared poised for rapid economic growth and development at independence from Britain in 1962. Yet chronic political instability and erratic economic management have combined to produce a persistent economic decline that has left Uganda among the world’s poorest and least developed countries.

After the turmoil of the Amin era, the country by 1981 had begun a program of economic recovery that was supported by considerable external assistance. From mid-1984 on, however, overly expansionist fiscal and monetary policies and the renewed outbreak of civil strife led to a setback in economic performance.

After assumption of power in early 1986, the government of President Museveni took important first steps toward economic rehabilitation. With much of the country's infrastructure—notably its transportation and communication facilities—damaged or destroyed, progress to date has been limited but encouraging. For example, recognizing the need for increased external support, Uganda negotiated in 1987 a policy framework paper with the IMF and the World Bank and subsequently adopted most of the proposals in a wide-ranging attempt at economic reform. The IMF document serves as a basis for Uganda’s program of economic recovery, which aims to restore price stability and a sustainable balance of payments, improve capacity utilization, rehabilitate infrastructure, restore producer incentives through proper price policies, and improve resource mobilization and allocation in the public sector. The Ugandan government has also worked with Western countries offering assistance to reschedule the country’s foreign debts in order to qualify for further foreign aid.

Agricultural products supply nearly all of Uganda’s foreign-exchange earnings, with coffee alone accounting for 97% of the country’s exports. Cotton, tea, and tobacco are other principal export crops. In 2000, the country imported more than four times the value of its exports—an unsustainable situation.

Most industry is related to agriculture—processing of agricultural products or manufacturing of agricultural necessities, such as hoes and fertilizers. The industrial sector also is being rehabilitated to resume production of building and construction materials, such as cement, iron bars, corrugated roofing sheets, and paint.

Uganda has about 32,000 kilometers of roads; some 6,400 kilometers are paved. Most radiate from Kampala, the capital and largest city. The country also has about 1,280 kilometers of rail line. A railway originating at Mombasa, Kenya, on the Indian Ocean connects with Kampala. Uganda’s important road and
rail links to Mombasa serve its transport needs and also those of its neighbors, Rwanda, Burundi, and parts of the Congo and Sudan. An international airport is at Entebbe on the shore of Lake Victoria, some 32 kilometers south of Kampala. This was once a modest facility, but a new terminal built with Yugoslav assistance has enabled it to become an important airport for handling high-value imports and exports for Uganda and the region.

Uganda has suffered many years of political turmoil and economic decline. Its real per capita income levels fell dramatically during the 1970s and 1980s. Poverty and malnutrition are widespread, and major public-health problems associated with the rapid spread of AIDS and the fifth highest incidence of tuberculosis in the world drain both human and financial resources. A reversal of these trends began in 1991 and its continuation will require substantial foreign economic assistance. But responses to the crises have been impressive. Local NGOs have led the way in education on preventing HIV and in care for the country’s many AIDS orphans. Growth continues to be rapid by sub-Saharan standards, and the country may well have turned the corner by 2002.

**Concepts for Review**

<table>
<thead>
<tr>
<th>Absorptive capacity</th>
<th>Global commons</th>
<th>Human immunodeficiency virus (HIV)</th>
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<tr>
<td>Agenda 21</td>
<td>Global factories</td>
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<td>AIDS</td>
<td>Globalization</td>
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<tr>
<td>Biodiversity</td>
<td>Global warming</td>
<td>Ozone depletion</td>
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<td>Earth Summit</td>
<td>Greenhouse gases</td>
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**Questions for Discussion**

1. The 1970s ushered in an era in which, for the first time, developed nations began to recognize their growing dependence on and vulnerability to the policies of certain developing-world groups of nations. What was the source of this developed-country dependence, and what happened to it in the 1980s and 1990s?

2. List the principal sources of greenhouse gases and causes of ozone depletion. Explain how LDC rain forest destruction contributes to global climate problems. What economic model can be used to justify MDC contributions to tropical forest preservation? Explain your answer.

3. In what ways was the Rio de Janeiro Earth Summit of 1992 a watershed in North-South relations? If the well-being of people in rich nations were not so directly involved, do you think similar progress would have been achieved? Explain your answer.

4. “The crisis in sub-Saharan Africa arose out of the unique circumstances and special conditions in Africa that negated traditional development strategies.” Do you agree or disagree with this statement? Explain your answer, being sure to identify the nature of the economic crisis in sub-Saharan Africa.

5. What kinds of policies, both domestic and international, are required to reverse the African decline? Explain your answer.
6. What impact will the success or failure of economic transition in Eastern Europe and the former USSR have on developing-world development prospects? What can LDCs learn from the transition experiment? Explain your answer.

7. How has globalization affected the world economy in general and North-South relations in particular? What might be the long-term results? Explain your answer.

8. Can the objective of greater collective self-reliance in developing nations be reconciled with the tendency toward increased global economic and noneconomic interdependence? Explain your answer.

Notes


8. A somber and striking scenario of millions of impoverished developing-world immigrants flooding across the borders of North America and Europe in the twenty-first century is portrayed by Matthew Connelly and Paul Kennedy in “Must it be the rest against the West?” Atlantic, December 1994, pp. 61–91. See also Hal Kane, “What’s driving migration?” World Watch, January–February 1995, pp. 23–33.


11. For a variety of innovative proposals designed to increase the impact of World Bank and IMF lending programs, see Jeffrey Sachs, “Beyond Bretton Woods: A new blueprint,” *Economist*, October 1, 1994, pp. 23–27.


**Further Reading**


