

Part I

Monitoring Progress

Charting and Sustaining Progress in Income Poverty Reduction

The first Millennium Development Goal (MDG) calls for the development community to reduce the global rate of extreme income poverty—measured by the share of the population living on less than \$1 per day—by half between 1990 and 2015. Current trends suggest that if the developing world can maintain the growth momentum of the past 15 years, it will meet this MDG. Numerically, the reduction in the global poverty rate owes the most to impressive advances in China and India, but it has also been helped by acceleration in income growth elsewhere in the developing world in recent years. The past year has seen strong growth and poverty reduction in much of the developing world as a result of improved developing-country policies and a global environment conducive to growth.

Thanks to these improvements, the long-term prospects for growth and income-poverty reduction appear good in most regions. Perhaps most notably, low-income countries are projected to continue their rebound from their stagnation and contraction of the early 1990s by growing at an average of well over 3 percent per capita in 2006. There are risks to the forecast, of course: the perennial but very real risks of abrupt adjustments in global external imbalances and sharp increases in interest rates, newer threats like an avian flu pandemic, and a risk of deeper

pain from persistently high oil prices. Weaknesses in developing-country institutional and policy frameworks (such as financial sector vulnerabilities) also pose risks, and high commodity prices have helped make possible delays in needed fiscal adjustment and structural reform. Continued rapid poverty reduction will therefore depend on further steps by developing countries to consolidate domestic sources of growth, as well as the promotion of equity.

This chapter reports on efforts to track progress in two areas related to growth: improvements in access to and quality of infrastructure, and promotion of an investment climate conducive to private sector growth. These policies make sense under any circumstances, but they take on special importance when the global environment is already very favorable by recent historical standards.

Poverty Reduction and Growth: Positive Trends, Significant Challenges

Progress on Poverty Reduction

The developing world as a whole is predicted to meet the poverty MDG. The latest projection is that the share of developing-country population living on under \$1 per day will fall from 27.9 percent in 1990 to 10.2 percent in

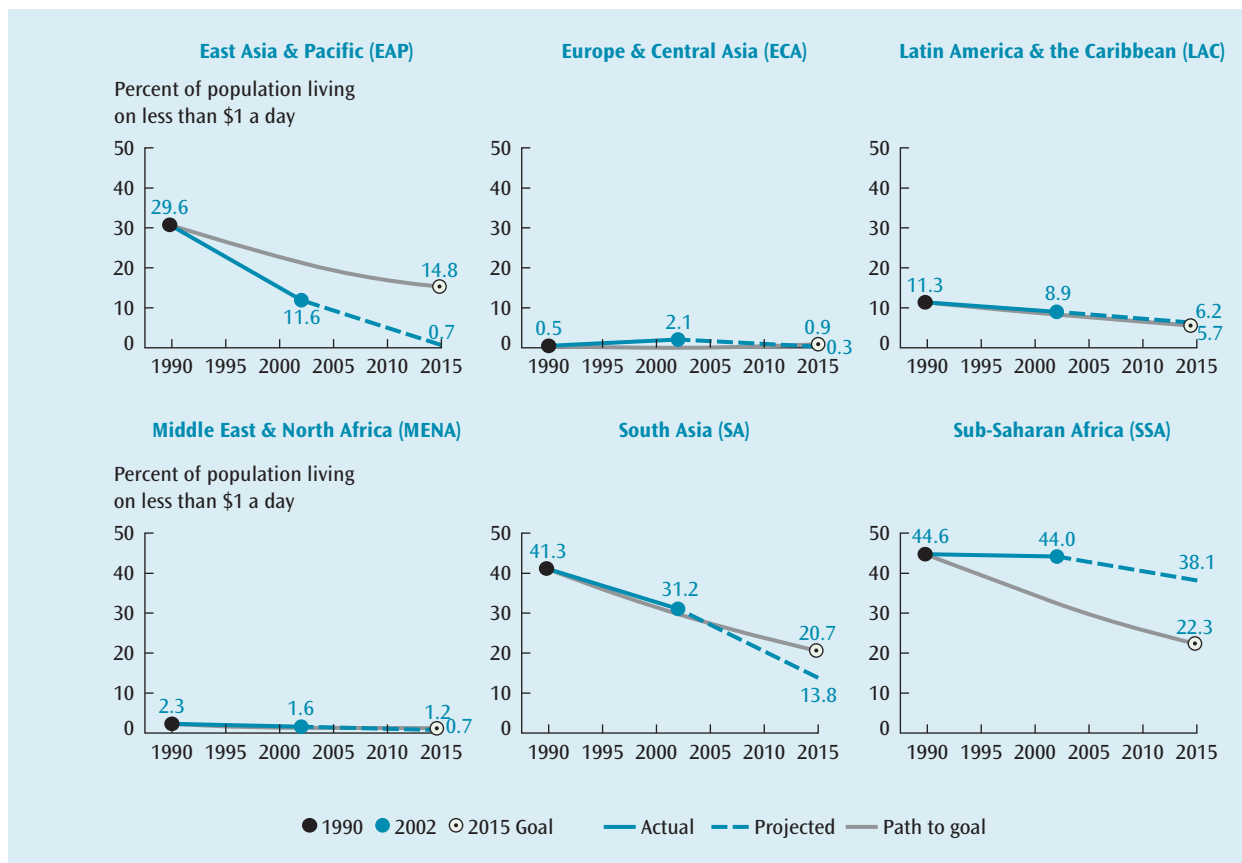
2015. By 2002, roughly halfway through the goal period, the share had already fallen to 21.7 percent. Although more recent global poverty estimates are not yet available (due to lags in availability of household survey data), the relatively robust income growth of recent years has increased the likelihood that the target will be attained.

But the news on poverty is far from unambiguously positive. While the poverty decline in the East Asia and Pacific (EAP) region has been extremely rapid, no other region has seen such rapid progress (figure 1.1). South Asia (SA) has made strong improvements too, placing it roughly on the path to meet the target. But Europe and Central Asia (ECA) saw a sharp increase in its low rate of poverty as a result of the transition recessions of the

1990s. The most discouraging news on poverty comes from Sub-Saharan Africa (SSA), the region with the highest share of its population in poverty in 1990. In 2002 the share fell slightly to 44.0 percent, which is significantly below the 46.4 percent in 2001 but virtually the same as in 1990. And current projections are that in 2015 Africa's poverty rate will remain over 38 percent—far above the 22.3 percent target.

The estimates in figure 1.1 are updated only through 2002, the last year for which household survey data are available for enough countries to allow regional and global estimates. However, it is possible to “project” the evolution of poverty through 2005 by combining the most recent household survey data available with data on

FIGURE 1.1 Progress toward the Poverty MDG Target, 1990–2002, and a forecast for 2015



Source: World Bank Staff estimates.

growth rates of real per capita incomes and assumptions about income distribution. These projections should not be regarded as estimates, but they give some idea of how recent rapid income growth may have translated into lower poverty.¹

The projections suggest that poverty rates may have fallen in all regions since 2002. In three regions, the rate has probably declined by 2 to 4 percentage points—to a projected 8.8 percent in EAP, 27.5 percent in SA, and 41.4 percent in SSA. These advances leave unchanged the conclusions above: on current trends, EAP and SA will likely reach the MDG for income poverty, while Sub-Saharan Africa will not, despite the recent acceleration in growth in the region. In the other three regions (Europe and Central Asia, Latin America and the Caribbean, and Middle East and North Africa), where initial poverty rates were lower, poverty likely dropped by less than 1 percentage point between 2002 and 2005.

Improvements in Long-Term Growth

Continued poverty reduction depends on sustained growth, and here the picture is a positive one. Most regions have good long-term growth prospects and strong recent performance, thanks to improvements in macroeconomic policies over the past two decades. In general, policies that contribute to macroeconomic stability help sustain growth, whereas those that promote instability, such as inflationary monetary policies and fiscal policies that lead to high budget deficits, tend to hurt growth by deterring private investment. Macroeconomic policy making will likely face new challenges as levels of official development assistance (ODA) to developing countries are scaled up.

Per capita GDP growth in low-income countries (LICs) was higher in 2005 than the average for any five-year period since the late 1970s, and the strong growth is expected to continue (table 1.1).² This trend is encouraging, particularly when contrasted with the low per capita growth seen in the early 1990s, even though economic growth in many coun-

tries remains below the level needed for them to achieve the MDGs. In the low-income countries of SSA, per capita growth was about 3 percent for the second straight year in 2005, despite continuing conflicts and periodic weather shocks. This growth is a marked improvement on the 1995–2004 SSA low-income country growth average of about 1.3 percent, not to mention the income declines of the early 1990s. In SA, LICs other than India grew at a strong 4.8 percent, nearly matching India's rapid growth. By contrast, the few LICs in the largely middle-income Latin America and Caribbean (LAC) region and the Middle East and North Africa (MENA) region grew more slowly.

As noted in *Global Monitoring Report 2004* and *Global Monitoring Report 2005*, macroeconomic policies in low-income countries have improved greatly over the past 15 years. These improvements were largely sustained in 2005. High oil prices contributed to an up-tick in inflation in low-income countries, but inflation rates in 2005 remained at roughly half the level of the early 1990s. Other indicators—fiscal deficits, external debt, and debt-service ratios—remained on average well below 2000–4 levels, and in fact lower than they had since the 1980s.³ Over the coming year, improvements in macroeconomic indicators are expected to continue (table 1.2).

International Monetary Fund (IMF) staff assessments suggest that in low-income countries, efforts to improve macroeconomic policies and governance have achieved results, to a point (table 1.3).⁴ In the areas of monetary policy and exchange-rate regimes, 70 to 80 percent of low-income countries are now rated as having good policies. On macroeconomic policy consistency and financial sector governance, too, the news is positive: less than a fifth of countries are rated as unsatisfactory. By contrast, fiscal policy and especially composition of public spending are viewed with greater concern.

The assessments also confirm that among low-income countries, those with higher growth rates tend to have better macroeco-

TABLE 1.1 Per capita GDP growth in low- and middle-income countries (by region)

	1985–9	1990–4	1995–9	2000–4	2003	2004e	2005f	2006f
Memo item: World (PPP weights) ^b	1.9	0.8	1.8	1.6	1.6	2.9	2.0	2.1
High income	3.8	2.3	3.4	3.8	3.9	5.0	4.4	4.4
Low-income countries	3.0	1.5	2.2	1.6	1.4	2.7	1.9	2.0
East Asia and Pacific	2.4	1.4	3.3	3.2	5.1	4.5	5.3	4.7
Europe and Central Asia	0.9	4.6	5.0	5.0	4.2	5.5	6.1	5.2
Latin America and the Caribbean	1.4	–14.4	–0.7	4.9	6.3	6.7	3.2	4.5
Middle East and N. Africa	–4.0	–4.0	1.7	0.0	–0.2	1.3	1.5	0.6
South Asia	8.1	–1.6	3.3	0.6	0.0	–0.5	0.4	0.3
Excluding India	3.6	2.7	4.0	3.7	6.1	5.1	5.4	4.8
India	2.2	2.1	1.7	2.5	3.0	4.2	4.8	3.8
Sub-Saharan Africa	4.0	2.8	4.6	4.1	6.9	5.3	5.5	5.1
0.2	–1.8	1.1	1.4	2.5	2.9	3.0	3.8	
Middle-income countries	1.5	1.2	2.7	4.0	4.5	6.3	4.9	4.6
East Asia and Pacific	6.4	8.1	5.9	7.1	7.9	8.2	7.4	7.1
Excluding China	3.8	5.5	1.0	3.4	3.9	4.6	3.0	3.7
China	8.2	9.6	8.1	8.4	9.3	9.4	8.6	8.0
Europe and Central Asia	1.3	–5.8	1.8	5.4	6.0	7.3	5.2	5.0
Latin America and the Caribbean	0.2	1.7	0.9	0.8	0.5	4.5	3.1	2.5
Middle East and N. Africa	–1.0	1.8	2.0	2.9	3.3	3.2	3.1	3.7
South Asia	1.5	4.3	3.9	3.0	5.1	4.5	3.5	4.8
Sub-Saharan Africa	–0.4	–2.4	1.1	2.3	1.8	3.0	3.6	3.3
Developing countries	1.4	0.9	2.5	3.6	4.3	5.7	4.7	4.5
Excluding transition countries	1.7	3.0	2.7	3.4	4.1	5.6	4.7	4.4
Excluding China and India	0.3	–0.7	0.9	2.1	2.3	4.5	3.4	3.3

Source: World Bank staff estimates.

Note: PPP = purchasing power parity; e = estimate; f = forecast.

a. GDP in 2000 constant dollars; 2000 prices and market exchange rates.

b. GDP measured at 2000 PPP weights.

economic policies, a relationship previously documented in *Global Monitoring Report 2004*. They also indicate that countries with better macroeconomic policy indicators tend to have better governance in related areas. In particular, countries with good public sector and monetary governance are more likely to have lower inflation and external debt-to-GDP ratios.

In 2005 middle-income countries (MICs) enjoyed continued rapid income growth, building on the strong performance of the previous year. Although China pulled the average up with its per capita growth of over 8 percent, all six regions experienced rapid average MIC growth, at over 3 percent. Europe and Central Asia had the strongest

performance outside the East Asia and Pacific region: ECA's middle-income countries have made a strong recovery from the transition shock of the 1990s, and their growth once again exceeded 5 percent in 2005, as it did for the 2000–4 period. Middle-income Latin America and Caribbean countries, which recorded little increase in per capita incomes over the previous decade, managed growth of over 3 percent, despite a drop-off from 2004. The indicators of macro policy suggest that these improvements were supported by better macroeconomic policies in MICs (table 1.2). However, this advantage has been blunted by the risk and frequency of financial crises, which have also made poverty alleviation more difficult. And despite the rising incomes

TABLE 1.2 Macroeconomic indicators for low- and middle-income countries (by region)
(Annual averages, except where indicated)^a

	1985–9	1990–4	1995–9	2000–4	2005 est.	2006 proj.
Inflation (median annual %) ^b						
Low-income countries	6.7	13.3	8.4	5.0	7.3	5.5
Middle-income countries	9.2	17.7	8.1	4.6	4.2	4.8
Current account balance (% GDP)						
Low-income countries	–6.4	–8.0	–7.6	–6.0	–5.7	–5.0
Middle-income countries	–1.9	–1.3	–4.4	–2.0	–2.1	–1.8
External debt (% of GDP)						
Low-income countries	76.3	98.9	97.2	101.9	90.5	88.2
Middle-income countries	44.8	46.6	43.8	47.8	42.4	40.5
Fiscal balance (% of GDP)						
Low-income countries	–6.5	–7.0	–4.9	–4.3	–1.0	–0.6
Middle-income countries	–3.8	–2.7	–3.1	–3.1	–1.1	–1.0

Source: IMF World Economic Outlook (WEO) database (Winter 2006 Board version); staff calculations.

a. Averages are calculated as unweighted means of country values

b. Median inflation is calculated from the annual medians and then averaged over five-year periods.

TABLE 1.3 Quality of macroeconomic policies in low-income countries, 2005
Share of countries falling into each category (percent)

Rating	Fiscal policy	Composition of public spending	Monetary policy	Consistency of macro policies	Governance/transparency in monetary and financial institutions	Foreign exchange regime
Unsatisfactory	26	61	11	16	18	7
Adequate	26	28	19	40	25	13
Good	48	11	70	44	57	80

Source: IMF staff assessments.

of these countries, poverty reduction in lagging regions remains very much a concern (box 1.1).

There has been significant progress in making the middle-income economies, and particularly emerging-market economies, more resilient to economic shocks. First, on average, current account deficits relative to GDP have fallen since the late 1990s, and this trend is projected to lead to lower external debt-to-GDP ratios, which should help reduce the likelihood of debt crises. Nevertheless, debt

ratios will remain high in many countries and will need to be reduced further. Second, there has also been a clear shift among emerging market economies toward more flexible exchange rate regimes. Such increased flexibility in exchange rates can help mitigate the real impact of crises, to the extent that real exchange rate depreciation offsets some of the real effects of falling aggregate demand. Third, financial sectors in middle-income countries have become somewhat sounder, in part because reputable international banks

BOX 1.1 Lagging regions in middle-income countries and progress toward the MDGs

Extreme poverty and deprivation is not confined to low-income countries. Middle-income countries remain home to a large share of the world's poor people, especially of those who live on less than \$2 per day. Much of this poverty lies in subnational regions where income and social indicators severely lag national levels. Household incomes in Brazil's northeast remain below half of the national average, in spite of programs to accelerate development there over the past half-century. The Turkish government faces a major challenge in eastern Anatolia, where life expectancy is nearly 10 years below that of the affluent western region, and the rate of underweight children is twice as high. Many other MICs confront similar problems; witness China's western region, Thailand's northeast, and Mexico's southern states.

Lagging regions of MICs confront many of the same development issues that low-income countries do. Many struggle with geographic isolation and poor integration with national markets, compounded by poor infrastructure. Lagging regions have often depleted their resources, leaving them a weak productive base for traditional activities. Governance is often far weaker than elsewhere, darkening the investment climate and undermining service delivery; social conflict and lack of security can raise costs and further undermine the capacity to attract investment.

For these reasons, regional MDG indicators often reveal a large agenda for action in middle-income countries. Donors and international financial institutions (IFIs) have given increased attention to the special institutional challenges involved in supporting subnational reforms in lagging regions. Subnational policy-based lending was introduced in the 1990s, but more innovative work is needed to address these issues in MICs. One promising development is the recent initiative to introduce joint International Finance Corporation (of the World Bank Group)-International Bank for Reconstruction and Development (IFC-IBRD) financing for infrastructure investments by subsovereign borrowers. Although the World Bank made more than \$4.5 billion in loans with sovereign guarantees for subnational infrastructure projects in fiscal 2005, the Bank Group's only instrument to offer financing to these subnational borrowers without sovereign guarantees is IFC's Municipal Fund. The new approach would combine the strengths of both the IFC and Bank approaches.

have taken on an increased role in Eastern Europe and Latin America. However, indicators of financial soundness suggest that room for improvement remains in many countries.

Short- to Medium-Term Outlook: Sustained Growth, but with Risks

What rates of growth and poverty reduction can developing countries expect over the short to medium term? The answer depends substantially on the pace of economic expansion in the advanced economies. Rapid rich-country growth increases trade and facilitates higher aid flows, and it can also affect developing countries through its impact on private financial flows, labor migration, and remittance flows. On average, in 1971–2000, a

1 percent increase in the real GDP of advanced economies was associated with a 0.4 percent increase in the real GDP of developing countries, although the relationship was much weaker for primary commodity exporters (IMF 2001: 80). Policies that encourage developed-country growth can thus improve prospects for achieving the MDGs.

Developed-country GDP growth is projected to remain robust over the near to medium term. After averaging a respectable 2.7 percent in 2004 and an estimated 1.9 percent in 2005, growth is projected to increase slightly in 2006. The United States is expected to remain the main driver of the expansion, but increased support will come from Europe. Average advanced-economy inflation rates (at 2.3 percent) and fiscal deficits (at 3.1 percent

of GDP) are projected to remain moderate. This outlook is consistent with continued high growth in exports from developing countries and reasonably constant terms of trade (table 1.4).

This forecast incorporates the assumption that global interest rates will not rise abruptly. Financial markets are relatively calm at present, but a sharp rise in interest rates could weaken consumer spending in developed countries and threaten the most vulnerable emerging-market economies, such as those with high debt ratios and short debt maturities. The forecast also assumes there will be no need for a sudden adjustment in global current account imbalances—including the U.S. external current account deficit, which has deteriorated from \$416 billion in 2000 to \$798 billion in 2005. If the demand for U.S. assets were to decline sharply, the ensuing U.S. contraction could spark a global recession.

These risks have received considerable attention in macroeconomic forecasts in recent years, but the generally positive medium-term scenario could also be derailed by newer risks. First, the recent rise in the price of oil and the current tightness of the oil market pose dangers. By September 2005 oil prices had increased by over 50 percent compared to end-2004, and they fell only moderately in the last quarter. Thus far, the impact of higher oil prices on global growth has been relatively minor overall, in part reflecting the

fact that higher prices were mainly due to increasing global demand spurred by growth rather than to supply shortfalls. For oil-importing developing countries, increases in aid, together with increased prices on other commodity exports, have helped cushion the blow, so that their GDP growth dropped only slightly in 2005. Nevertheless, gross national income (GNI) growth for those countries fell sharply, from 6.3 percent in 2004 to an estimated 3.7 percent in 2005, and further adjustments are likely to come. Moreover, many large emerging market economies have not yet allowed domestic gasoline prices to rise enough to reflect the price increases; in the advanced economies, the consumer may only now realize that high oil prices are largely permanent and require a cutback in household budgets. The impact of higher oil prices on private investment may also take some time to emerge fully. In addition, the decline in the price of oil in late 2005 was at least partly due to the combination of mild weather and oil reserve releases; hence the decline may not be sustainable.

Oil prices are expected to average between \$55 and \$60 a barrel for the next two years, and further increases in oil prices cannot be ruled out, as excess capacity among producers of the Organization of Petroleum Exporting Countries is limited and the market remains vulnerable to supply shocks. Disruptions in oil supply could seriously depress future developing-country growth in much the same

TABLE 1.4 Global economic environment and developing countries
(Annual percent change unless otherwise indicated)

	1995–9	2000–4	2005e	2006f
World trade (average)	7.4	6.3	7.4	8.0
Developing countries:				
Volume of exports of goods and services (average)	8.0	9.7	10.9	10.3
Terms of trade (average)	0.2	1.6	5.4	1.7
Fuel exporters	3.4	8.8	23.4	8.3
Nonfuel exporters	–0.5	–0.3	–0.1	–0.4

Source: WEO, Winter 2006 Board Version.
e = estimate, f = forecast.

manner as the oil supply shocks of the 1970s, especially if prices of other commodities weaken. Countries will need to adjust to permanently higher oil prices, most notably by increasing energy efficiency and avoiding price controls that drain public finances.

A second major new risk is economic dislocation caused by avian influenza. In addition to the terrible toll that it could exact in human lives, an influenza pandemic could prove a serious threat to the global economy. Countries that depend heavily on international tourism and that lack adequate public health and medical facilities, or that are at some risk of capital flight being triggered by an outbreak, are particularly vulnerable. Therefore, action to neutralize the epidemic's potential for economic dislocation—for example, funding for culling birds and compensating farmers—is urgently needed. The budgetary cost to low-income countries of programs to prevent or impede the spread of the disease and manage the treatment of the sick will prove difficult to finance without external assistance. It is in the global interest that the countries at the front line of this disease be able to react quickly and decisively. At the January 2006 ministerial conference in Beijing, the international community took a key step toward making this happen by pledging \$1.9 billion to fight avian flu.

Implications for Developing Countries

To sustain their progress in accelerating growth and poverty reduction since the 1980s, developing countries will need to increase their economies' resilience and reduce vulnerability to cyclical downturns. They will also need to make major progress along other dimensions.

The remainder of this chapter covers two of those dimensions. First, it reviews developing countries' progress on monitoring and improving the investment climate for private sector growth and productivity. Second, it highlights a key component of that business climate: the quantity and quality

of infrastructure. The availability of high quality infrastructure services in key areas—such as water, sanitation, electricity, telecommunications, and transport—not only promotes growth and poverty reduction but also spurs progress toward the human development MDGs (see chapter 2). The choice to monitor these two areas in depth inevitably means a choice not to focus on other areas; box 1.2 discusses some important areas related to poverty reduction that are not otherwise covered in this chapter.

Improving the Investment Climate: Contribution of Better Analysis

The quality of the investment climate contributes strongly to growth, productivity, and employment creation—all of which are essential for sustainable reductions in income poverty. Data on the quality of the investment climate can thus serve as a leading indicator for poverty reduction. In the past several years, the World Bank and its partners, including other multilateral development banks, have increased collection of data on the investment climate quality in many countries. The new data are translating into concrete policy recommendations.

Analysis to Improve the Business Climate

The World Bank produces quantitative measurements of the investment climate using two major vehicles: the Investment Climate Surveys (ICS) and the Doing Business (DB) surveys. The two are complementary; the ICS draw their data from firms, and the DB surveys rely on experts. Together, these surveys map out much of the terrain that developing-country entrepreneurs must navigate as they seek to invest in and expand their businesses. They help countries to identify major bottlenecks to private sector growth and to concentrate their reform efforts on the areas with the biggest potential payoffs.

BOX 1.2 Beyond improved investment climates and infrastructure

The investment climate in general and infrastructure in particular are far from the only important areas to monitor for spurring growth and poverty reduction. Investment to raise agricultural productivity is essential, especially given that the majority of the world's poor still live in rural areas. Better rural infrastructure and investment climates constitute part of the story of improving agriculture, but there are many other factors—such as freer international trade in agricultural products, greater competition in agricultural input markets, and more research and development in tropical agriculture. Another potentially important mechanism for promoting growth, through increased competitive pressures and reduced production costs, is greater engagement in international trade; progress in this area is discussed in depth in chapter 3.

More generally, growth-targeted policies will need to be complemented by measures to promote equity. When people are denied equal opportunities—whether in access to education, health, financial systems, justice, or the political process—their talents and productive capacity are wasted, and society as a whole suffers. Expanding opportunities for those who have the least is thus not only a desirable end in itself, but also an important instrument for achieving growth and poverty reduction. A focus on equal opportunity therefore implies monitoring and acting to remove the factors limiting shared growth, as discussed in detail in *World Development Report 2006*.

What does this mean in terms of actual policies? In finance, a concern for equity may mean balancing the focus on financial stability and performance of well-served clients with approaches to expand financial access to underserved clients. In education and health, it may mean using vouchers or conditional cash transfers to boost the effective demand of excluded groups. In private sector development, it requires addressing the constraints on informal and small-scale rural enterprises, not just those on larger-scale formal firms. In power, it may mean complementing efforts to extend the electrical grid with smaller-scale decentralized mechanisms for providing electricity. In all sectors, it means monitoring how economic and social trends and policies affect excluded and disadvantaged groups. Monitoring trends in income poverty is a start—but only a start, in that monitoring of outcomes has to be accompanied by measuring and analyzing processes that lead to those outcomes.

Finally, policies should be aimed at promoting growth that is sustainable. If countries meet the poverty MDG target by mining soil fertility and depleting natural resources at excessive rates, improvements may not be sustained. This is a key concern of the MDG on environmental sustainability. One way to analyze sustainability is to look at measures of “adjusted net saving”—that is, saving adjusted for consumption of resources. This metric raises real concerns: in low-income countries, adjusted net saving has fallen from 7.6 percent of GNI in 1999 to 6.5 percent in 2004, while in middle-income countries, it has dropped sharply from 14.3 percent to 8.9 percent, owing partly to consumption of oil rents in petroleum-producing states. Beyond this concern, current environmental risks also reduce the prospects for meeting MDG targets. For example, low-income countries depend on biomass fuels for nearly 50 percent of their total energy, but the resulting indoor air pollution leads to high rates of death and illness. Low-income countries also faced urban air pollution levels (in terms of particulate matter less than 10 microns, a major health hazard) that are on average 70 percent higher than World Health Organization standards in 2002. Moreover, policies and institutions dealing with the environment and natural resources are generally rated as weak in developing countries, raising particular concerns as countries and donors contemplate major infrastructure investments.

As discussed in previous Global Monitoring reports, the ICS collect data from firms on both objective and subjective indicators covering a wide range of investment climate dimensions. In the past year, the surveys were fielded in over 35 countries, bringing the total to 75 countries. Moreover, a second round of surveys has begun in countries that were first surveyed three years ago, thereby allowing analysis of the effect of changes in the investment climate and specific policies on firm performance.

In 2005 the surveys also expanded by including more service-sector firms and more of the informal enterprises that employ many poor people. Under a protocol signed in March 2005, the multilateral development banks (MDBs) will conduct the surveys jointly, increasing cost-effectiveness and potential policy impact. The collaboration began successfully with the European Bank for Reconstruction and Development and World Bank surveying all the ECA countries in 2005; now all 27 ECA countries have been surveyed more than once.

The findings of the DB surveys (analyzed in the World Bank's annual *Doing Business* reports) are based on responses to standardized surveys of experts from 155 countries. This year the surveys will cover 20 additional small states. The surveys address 10 areas of regulation: starting a business, dealing with licenses, hiring and firing workers, registering property, getting credit, protecting investors, paying taxes, enforcing contracts, trading across borders, and closing a business. Experts answer questions in their area of expertise on the basis of their experience operating within the regulatory system. Most respondents are from the private sector and are either lawyers or accountants who deal frequently with rules and their enforcement. The surveys ask only objective questions—for example, what steps are necessary to register a new company, how many days each step takes, and how much time each step takes—producing quantitative indicators for business regulations that can be compared across countries and over time.

Analysis for Action: Identifying Sources of Higher Business Productivity and Growth

The new data from the ICS and DB surveys have strengthened the analytical basis for action and increasingly make it possible to assess progress in improving the business climate.

IMPROVEMENTS TO THE INVESTMENT CLIMATE CAN BE SUBSTANTIAL

Research based on the ICS not only reinforces the importance of the business environment as a determinant of competitiveness, but also points to specific areas for reform. It is not enough for a firm simply to have the right technology, or efficient management, or skilled employees. Certainly productivity on the factory floor matters, but advantages in this area can be offset, even swamped, by excessive costs associated with poor access to infrastructure and financial services, or weak property rights and governance (Hallward-Driemeier and Smith 2005). In both low-income and middle-income countries, understanding the climate for firm productivity and growth is essential.

Much of the development community's attention is focused on maintaining and accelerating growth in low-income countries, located primarily in Africa. One key question is why productivity is so low in much of Africa compared with that in India and China. Analysis of ICS data shows that some of the disparity stems from differences in labor productivity, but that high indirect costs and business-environment-related losses also significantly depress the productivity of African firms relative to that of firms in other countries.

Is it reasonable to expect improvements in investment climates in low-income African countries? Consider evidence on the differences among African countries. Even as the region as a whole lags behind, some African economies show evidence of a more productive business community and better business climate. South Africa, a middle-income country, sets a standard for the region; yet as box 1.3 illustrates,

the ICS identify constraints on firm productivity even in its relatively well-functioning business environment. Among LICs, Senegal shows what an African country can achieve with a strong business community and a relatively good business environment. In Kenya, a long history of entrepreneurship is reflected in strong potential factory-floor productivity, but high investment-climate-related costs impede competitiveness. Uganda and Tanzania appear to be middle-of-the-road perform-

ers. At the bottom end, firms in Zambia and Mozambique—and to a lesser extent those in Nigeria and Ethiopia—have relatively weak factory-floor productivity, and their value-added is heavily squeezed by high business-environment costs (Eifert, Gelb, and Ramachandran 2005).

Local governance is often as important as national governance in determining the investment climate. Some policies are set at the local level, and even when policies are

BOX 1.3 Improving the investment climate in South Africa

Starting from a strong fiscal position, the South African government is aiming for accelerated and shared growth of 6 percent by the end of the decade. Conditions for such rapid growth look favorable. By comparison with firms in other countries, few South African firms rated investment climate constraints as major obstacles to growth. Most firms believe that the courts are able to protect their property, that losses due to power outages are relatively small, and that tax rates are reasonable and are declining. Although the burden of regulation is not particularly low, it is comparable to that in most middle-income countries: on average, senior managers spend 10 percent of their time dealing with regulatory requirements, much less than in China and Lithuania (25 percent). Yet investment remains low. Reform is still needed in four areas:

Wages, particularly for skilled workers, are high by international standards, eroding competitiveness. Workers' skills were identified as a serious obstacle by more managers than were any other area of the investment climate. Firms must pay a particularly high premium for skilled and educated workers. The median monthly wage for an unskilled production worker in South Africa in 2002 was about \$240 a month compared with \$250 a month in Poland and \$167 a month in Brazil. Yet the median monthly wage for a manager in South Africa was about \$1,850 a month, over twice as high as in Poland (\$740 a month) and over three times as high as in Brazil (\$540 a month).

Rigid labor regulations discourage firms from hiring new workers. Nearly one-third of enterprise managers said labor regulations were a serious problem. Other indicators support this concern, suggesting that labor regulation is more rigid in South Africa than in many other middle-income countries. In *Doing Business 2006*, South Africa ranked 28th in the world overall on ease of doing business, but only 66th on regulations related to hiring and firing workers.

Macroeconomic instability raises uncertainty, particularly for exporters. Macroeconomic instability was rated as a serious obstacle by about 33 percent of South African firms. At first this finding seems puzzling, because inflation has been modest and macro fundamentals have been steadily improving. But exchange rates have been volatile, especially against the dollar. Close to three-quarters of enterprises that export to the United States, the country whose currency has been most unstable against the rand, rated macroeconomic instability as a serious obstacle.

The cost of crime is higher in South Africa than it is in many of its competitors. For the median firm, direct losses due to crime and the cost of security were about 1.1 percent of sales. Although lower than in the countries most affected by crime, this rate is higher than in many middle-income countries: losses from crime were less than 1 percent of sales in China, Poland, Brazil, and even Russia. Security costs accounted for about two-thirds of the cost of crime, while direct losses accounted for the other third.

Sources: Clarke and others 2005; Kaplan and Ramachandran 2005.

national or regional, local officials who implement and enforce them often have considerable discretion. By covering multiple locations within a country, the ICS make it possible to measure just how important the local investment climate is in determining productivity. The answer is often “quite important.” Within Morocco, for example, total firm productivity (TFP) differences across regions owe much more to the effects of local investment climates than to the combined effects of two other key factors in productivity: agglomeration economies and natural geographic advantages (Mengistae and Thompson 2005). And in South Asia and China, investment climate measures explain up to 80 percent of the differences in productivity, even controlling for measures of economic geography (Dollar, Hallward-Driemeier, and Mengistae 2005; Lall and Mengistae 2005). A similar result was found with respect to the role of investment climate indicators in facilitating greater international integration in Asia and in Latin America (Dollar, Hallward-Driemeier, and Mengistae forthcoming). More reliable infrastructure services, access to finance, and less onerous regulatory burdens help firms grow faster and facilitate entry into export markets. Workers also benefit: a better investment climate is associated with both higher wages and greater job creation.

Corruption matters. Uncertainty of regulatory policies and their enforcement continues to rank as one of the top constraints reported by entrepreneurs. Almost 95 percent of firms report that “at least some of the time” there is a gap between formal regulations and the way they are enforced. Discretion and frequent interactions with officials are both associated with a higher incidence of demands for “additional payments” (typically a euphemism for bribes). In Bangladesh, for example, 85 percent of firms report that tax inspectors expect to receive “gifts” during meetings, and that payments equivalent to 2.5 percent of sales are paid to help “get things done.” By comparison, only 10 percent of firms report paying “gifts” in Latvia or Slovenia. In many cases, it appears

to be the large and expanding firms that are targets of corruption (World Bank 2005b).

ICS data also help identify potential sources of innovation, a key source of productivity and income growth. New research shows that greater competitive pressure on a firm is generally associated with higher rates of innovation by the firm, as measured by rates of introduction of new products and processes. There is some guidance for policy makers here: the same evidence indicates that such benefits are more likely to be realized through more effective enforcement of competition laws than through lower tariff barriers (Clarke 2005).

Finally, ICS data identify labor market regulation as an important determinant of firm performance and behavior, including decisions to hire and train workers. Evidence from Brazil and China shows that greater flexibility can boost productivity, enable more innovative firms to grow, and reduce the incentive to shift employment to informal workers (Almeida and Carneiro 2005; Dollar, Wang, Xu, and Shi 2005).

Thanks to the new repeat surveys for the 27 ECA countries, it is possible to diagram how the investment climate is changing in that region (figure 1.2). Overall, the picture suggests progress, with noticeable improvements in survey indicators of crime, corruption, and especially policy uncertainty.

DOING BUSINESS UPDATE: EASTERN EUROPE REFORMS THE MOST, AFRICA THE LEAST

Data from the Doing Business surveys complement the ICS data in describing the landscape for firms by focusing on the regulatory costs of opening and operating businesses. New businesses are a vital source of economic growth and jobs in any country. Yet the DB surveys show that poor countries place the highest burdens on entrepreneurs, loading them down with administrative hassles that divert energy from running the business. Poor countries also reform their business regulations the least.

In 2004 the DB surveys showed that more reform took place in Eastern Europe and

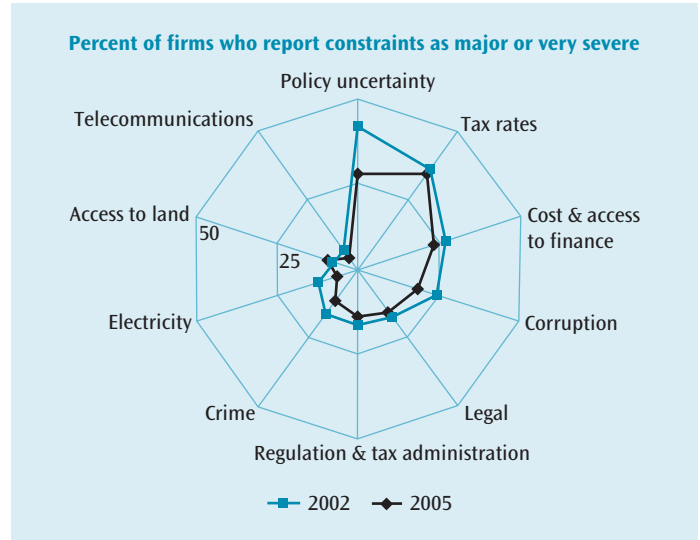
Central Asia than in any other region; every ECA country took at least one step to make things easier for business (figure 1.3).⁵ Two ECA countries, Serbia and Montenegro and Georgia, topped the global rankings for best reforms enacted. At the other end of the scale, Sub-Saharan Africa reformed the least as a region. By the Doing Business metric, African countries averaged only around 0.6 reforms per country in 2004, and for every three African countries that improved regulations for business, another country made it more burdensome to do business.

Some African countries are acting to improve their business environment. Rwanda introduced sweeping reforms over the last few years to make it easier for entrepreneurs to start and run their businesses. Land titling reform followed new company and labor laws, and the country has benefited from streamlined customs procedures and better credit information. Nigeria reformed in three areas in 2004—company startup, labor regulation, and credit information. These examples need not be isolated.

In addition, several African countries are already providing good regulatory environments for business. Mauritius and South Africa both rank in the top 30 economies globally on the ease of doing business; Namibia is not far behind at 33rd. All countries need to regulate enterprises to promote worker safety, environmental goals, social protection, and other goals, but these countries do so in ways that are less burdensome to business. *Doing Business in 2007* will feature 50 reform cases, including 9 from Africa that could serve as best-practice examples for would-be reformers.

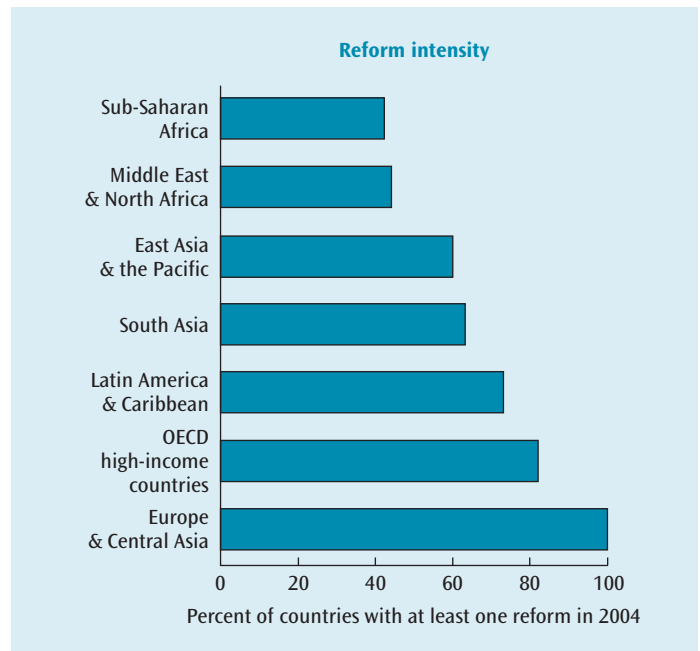
The payoff from easing regulation is large. *Doing Business in 2005* showed that more complex regulations are associated with lower growth rates. *Doing Business in 2006* finds they are also associated with higher informality; or, to put it more positively, where regulations are simple, jobs are more likely to be created in the formal sector. Reaching the top quartile of performance, as measured by the Doing Business indicators, is associated with

FIGURE 1.2 Evolution of investment climate indicators in Europe and Central Asia, 2002 and 2005

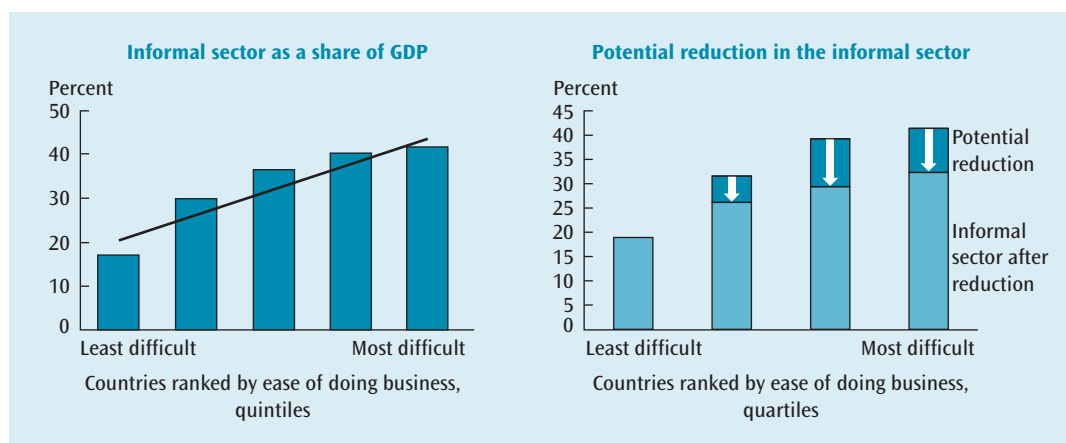


Source: World Bank Investment Climate Surveys.
 Note: The graph does not include every country in the region. Points closer to the center are better.

FIGURE 1.3 Doing Business reform intensity in 2004 by region



Source: Doing Business Database.

FIGURE 1.4 The informal sector and the ease of doing business in 2004

Source: World Bank 2006a; Doing Business database; Schneider 2005; WEF 2005.
 Note: Relationships are significant at the 1% level and remain so when controlling for income per capita.

a 9-percentage-point fall in the share of GDP accounted for by informal activity (figure 1.4). More formal jobs mean that more workers are protected by pensions, safety regulations, and health benefits. Women, who make up three-quarters of the workforce in some developing economies, are big beneficiaries of regulatory reform; so are young people looking for their first job.

Infrastructure Growth: Beyond Treading Water

One key element of the investment climate is the quality of infrastructure, which is the backbone of a functioning economy. As reviewed in *Global Monitoring Report 2004*, the analytical evidence increasingly demonstrates the importance of infrastructure for sustaining growth and achieving both poverty alleviation and development goals. Improving infrastructure services to poor households and rural areas is central to pro-poor growth agendas. For the economy as a whole, infrastructure can enhance investment climate and growth by increasing productivity, bridging markets, and facilitating trade. Beyond that, infrastructure services directly benefit households by supplying basic elements necessary to guarantee quality of life, satisfaction of basic

needs, and increased welfare in general. This section tracks changes in infrastructure availability and quality in the developing world, and it explores their implications for monitoring and spurring improvements in infrastructure services.

The State of Infrastructure: Progress, but Not Fast Enough

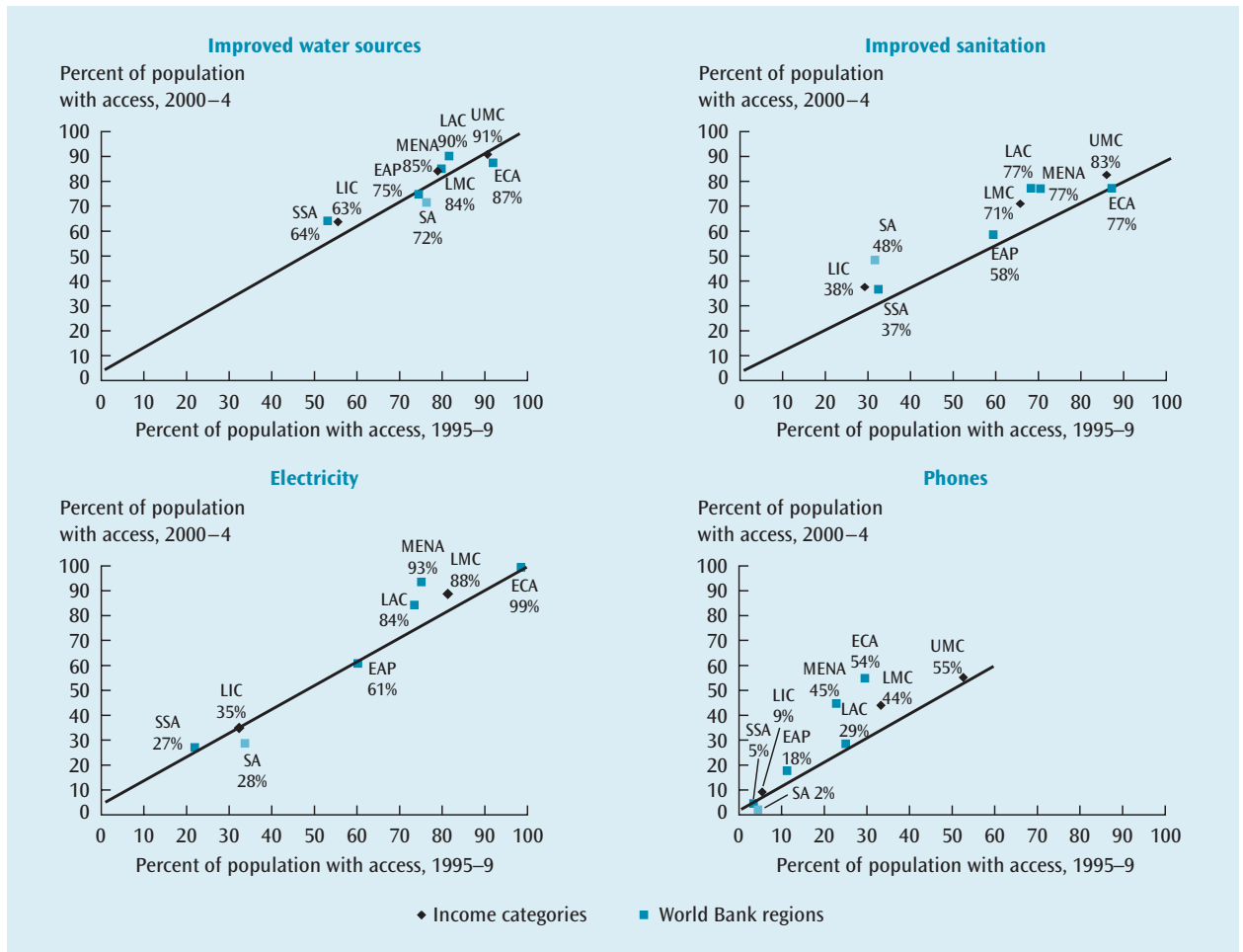
Despite considerable expansion in the infrastructure critical to meeting the MDGs, rates of household access to infrastructure services are not increasing as rapidly as the numbers would first suggest. First, the good news: infrastructure services are reaching more people in the developing world in absolute terms. Between 1990 and 2002, over one billion people gained access to improved water supply and sanitation services.⁶ Also during the 1990s, the number of total telephone subscribers in developing countries (expressed in population shares) nearly quintupled, from 27 to 129 per 1,000 people; it is estimated that between 2000 and 2005, the number may have tripled again to reach almost 400 subscribers per 1,000 people. Similarly, between 1995 and 2004, an estimated 470 million people gained access to electricity.

The situation is less positive than it appears from these figures. In many cases, access rates have hardly kept pace with population growth. The failure of infrastructure to expand on a per capita basis, and to reach a substantially higher share of households, could reduce developing economies' growth potential. In countries where infrastructure services are scarce and underdeveloped, the potential returns on infrastructure access may be particularly high.⁷

Among developing regions, infrastructure progress has been most rapid in East and South Asia in absolute terms. But in per capita terms,

South Asia is losing ground: improvement in infrastructure and in access to water, electricity, and phones has not been quick enough to match the region's 2 percent population growth rate. Figure 1.5 illustrates this by mapping infrastructure access rates from 1995–9 against those from 2000–4; in three sectors, South Asia languishes below the 45-degree line (which represents no change in access rates). As the figure also shows, the Middle East region has been a top performer, particularly in telecommunications and electricity, to which more than 15 percent of the population gained access over the last five years.

FIGURE 1.5 Progress in household access to infrastructure, 1995–2004



Source: Staff calculations, based on DHS, LSMS, and various household surveys over the period; see Briceño-Garmendia and Klytchnikova 2006.
 Note: See figure 1.1 for region codes. LIC = low-income countries; LMC = lower-middle-income countries; UMC = upper-middle-income countries.

Africa undeniably improved overall access rates in most infrastructure services, but it still lags behind other regions. Although the number of telephone subscribers has tripled in African countries, the number of households with phones remains below 5 percent. And in other sectors, improvements have been modest. From the mid- to late-1990s to 2002 (latest available data), the average electrification rate for the region improved to about 27 percent; this is a significant gain of 5 percentage points, but it still left Africa the lowest among developing regions. In water and sanitation, in absolute terms, Africa has been the region with the slowest progress, despite some progress in coverage rates.

Eastern Europe is losing ground in key infrastructure areas. By the early 1990s, Eastern Europe had universal access to most infrastructure services. But since 1995, the region has suffered a decline of about 5 and 9 percent of the share of population with access to improved water and sanitation, respectively, and the quality of the water network has deteriorated significantly (World Bank 2005b). By contrast, phone access has expanded rapidly, and access to electricity remains nearly universal.

In Latin America, both coverage and quality of infrastructure have seen sustained improvements in the last decade, at least according to the usual indicators. And yet as with macro reforms in the region, these improvements have apparently not yielded the expected growth payoff. One reason may be that despite the advances, the region has lost ground relative to middle-income competitors and peers, particularly in East Asia. Moreover, the empirical evidence is now pointing to signs of underinvestment—in large part because of public sector cuts to achieve fiscal targets—suggesting that Latin America and the Caribbean may lag further behind competitors in infrastructure in years to come (World Bank 2005a). This region's story has initiated discussion about the future growth impact of reductions today in infrastructure investments, particularly public sector investments.⁸

Access Gaps and Vulnerable Groups

Because gains in household access rates have been modest, large gaps in access persist between vulnerable and better-off groups. These gaps can separate disadvantaged groups from the vitality of a growing economy and prevent them from benefiting and contributing fully. To narrow infrastructure gaps, it is important to identify vulnerable groups and how to reach them.

Poverty and isolation are twin dilemmas that define vulnerability. Information from household surveys suggests that in many developing countries, modern infrastructure services cater mostly to the highest-income quintile of the population. In low-income countries, access for the rich is significantly less than universal, and the poor are almost entirely excluded from access to modern network services (table 1.5).

As for the effects of isolation, a comparison of rural and urban populations suggests the geographic disparities in infrastructure service provision. Rural populations across the developing world tend to have lower rates of infrastructure access than urban populations do (table 1.6). To take one extreme example, 65 percent of urban households in low-income countries have access to electricity, but only 17 percent of rural households do. Lack of electricity can pose a severe constraint on growth and poverty reduction—limiting, for example, the growth and productivity of the off-farm enterprises that are essential to rural development.

Policies and investment efforts will need to continue targeting these access gaps and supporting vulnerable and isolated groups in rural areas. Yet at the same time, policy makers in the developing world cannot afford to ignore the huge infrastructure challenge posed by the recent (and forecast) urban expansion in the developing world. Over the next 30 years, the global urban population is forecast to increase by almost two billion—and virtually all of this growth will take place in developing countries, particularly in the poorest

TABLE 1.5 Percentage of households with access to basic infrastructure services, quintile comparison (2000–4, latest observations available)

Country group	Electricity ^a		Water ^b		Sanitation ^c		Telephone access ^d	
	I	V	I	V	I	V	I	V
Low-income	9.7	68.7	41.1	78.5	27.2	68.8	3.2	24.5
Lower-middle-income	79.5	99.3	64.5	86.6	48.2	78.7	21.2	66.1
Upper-middle-income	81.4	99.5	76.7	95.0	73.4	96.4	32.0	73.1

Source: World Bank staff analysis; see Briceño-Garmendia and Klytchnikova 2006.

a. DHS and HHS—Households reporting access to electricity

b. JMP/WHO—Percent of population with access to an improved water source

c. JMP/WHO—Percent of population with access to an improved sanitation facility

d. DHS/HHS—Households reporting access to a telephone

I. poorest quintile

V. richest quintile

DHS = Demographic and Health Surveys

HHS = household surveys

JMP/WHO = Joint Monitoring Programme for Water Supply and Sanitation/World Health Organization

TABLE 1.6 Percentage of households with access to basic infrastructure services, urban-rural comparison (2000–4, latest observations available)

Country group	Electricity ^a		Water ^b		Sanitation ^c		Telephone access ^d	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Low-income	65.1	17.3	82.7	54.9	58.3	27.8	20.9	3.0
Lower-middle-income	90.9	76.6	93.6	73.8	84.3	56.2	57.8	24.4
Upper-middle-income	97.7	76.5	94.1	84.2	88.4	73.7	67.6	41.8

Source: World Bank staff analysis; see Briceño-Garmendia and Klytchnikova 2006.

a. DHS and HHS—Households reporting access to electricity

b. JMP/WHO—Percent of population with access to an improved water source

c. JMP/WHO—Percent of population with access to an improved sanitation facility

d. DHS/HHS—Households reporting access to a telephone

DHS = Demographic and Health Surveys

HHS = household surveys

JMP/WHO = Joint Monitoring Programme for Water Supply and Sanitation/World Health Organization

regions.⁹ The economic future of most countries, including those still urbanizing, will depend on how well their cities function.

Urban expansion is a challenge, but it also gives policy makers opportunities with respect to infrastructure bundling and wholesaling, as well as the option of taking advantage of economies of scope in the production and distribution of services. Focusing on the unserved urban population may sometimes be the most efficient approach. In Latin America and the

Caribbean, for example, the roughly 3 percent of urban population without access to improved water constitutes about 34 percent of the total unserved population; a similar situation holds in Eastern Europe.¹⁰

Monitoring Infrastructure Gaps: The Need to Assess Quality

Where infrastructure services are lacking, customers often rely on lower quality techno-

logical alternatives offered by informal service providers. Monitoring these alternatives is challenging because of the lack of data. As a result, monitoring has focused on access, which is the easiest aspect of provision to measure. But qualitative aspects are crucial for infrastructure provision. Having access to water for 3 hours a day is not the same as having access for 24 hours a day; nor is dung equivalent to kerosene as a main cooking fuel. Other crucial dimensions of quality—such as reliability, safety, and customer orientation—should also be measured. A quality-adjusted access rate is therefore in order.

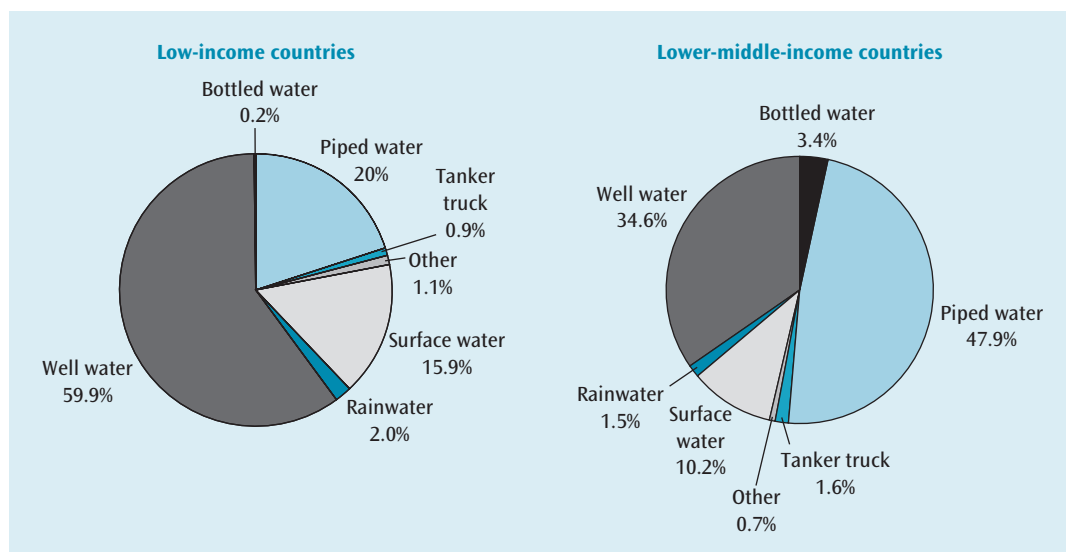
Assessing quality is time-consuming and expensive. Consider the water sector. The World Health Organization and United Nations Children's Fund have created a "technological" taxonomy of one aspect of

water services quality. From simple questions added to a multipurpose household questionnaire, a household's water service can be classified according to its safety—that is, whether the service represents improved technologies like pit latrines or a piped sewer system, or unimproved sources such as an unprotected spring or surface water.¹¹ But many other aspects of quality of service (such as continuity of flow, predictability of flow, and availability of water during the dry season) that also determine the degree of "access" to water and sanitation have not been captured reliably in general-purpose surveys. Although "dedicated" water and sanitation surveys can be conducted in individual project areas, they are too expensive and complex to be a routine form of water and sanitation monitoring.

BOX 1.4 The monitoring dilemma: matching the story of suppliers with the story of users

Effective results-based monitoring in the infrastructure sectors is difficult. The most basic challenge lies in the discrepancy between the data that service providers collect routinely and the data needed to monitor progress in meeting the MDG targets and household needs more generally. Water supply utilities, for example, routinely collect data on the number of active household connections, which is of crucial technical and financial importance to the utility. But these data tell little about the quality of the water supply to those not connected directly to the network. In sanitation, the problem is even more serious: the standard indicator, the number of sewerage connections, tells nothing about the sanitation used by the vast majority in developing countries who are not served by a sewerage utility. Even in the telecommunications sector, monitoring access is a challenge. The International Telecommunications Union annually carries out surveys of telephone regulators and telephone companies and subsequently reports the most reliable figures on the number of phone lines and subscribers. But these numbers overestimate access rates and probably also progress, because dividing the number of subscribers by total population does not differentiate between households with more than one phone and those with none.

As recognized by the World Bank and the Joint Monitoring Program since its landmark report in 2000, the key to getting meaningful data on access and service quality in infrastructure services lays in the use of surveys and census data obtained from households, not from service providers. While such a survey-based approach has its own problems—most notably, the impracticality of conducting household surveys every year to monitor relatively minor changes—it is the most straightforward way to cut through the inevitable biases in data obtained from service providers. Unfortunately, there has been little systematic monitoring through household surveys focused on infrastructure services, in particular information and communications technologies and transport services. Moreover, when infrastructure issues have been monitored in household surveys, the focus has been on measuring access to the service, which means quality and affordability have not been monitored. Fortunately, the development community is now committed to overcoming this problem.

FIGURE 1.6 Access to water, by water source

Source: Staff analysis of Demographic and Health Surveys; see Briceño-Garmendia and Klytchnikova 2006.

Notwithstanding the limitations, the technological taxonomy of services can suggest quality disparities in general and, globally, among country income groups. In the case of water supply, wells are the main source of water for 60 percent of the population in low-income countries. The more sustainable and efficient option of piped water covers only about 20 percent of the LIC population. In the case of lower-middle-income countries, the proportions reverse: about 35 percent of the population relies on wells for water, whereas 48 percent receive piped water. These data suggest that quality, not just access, rises with country income levels.

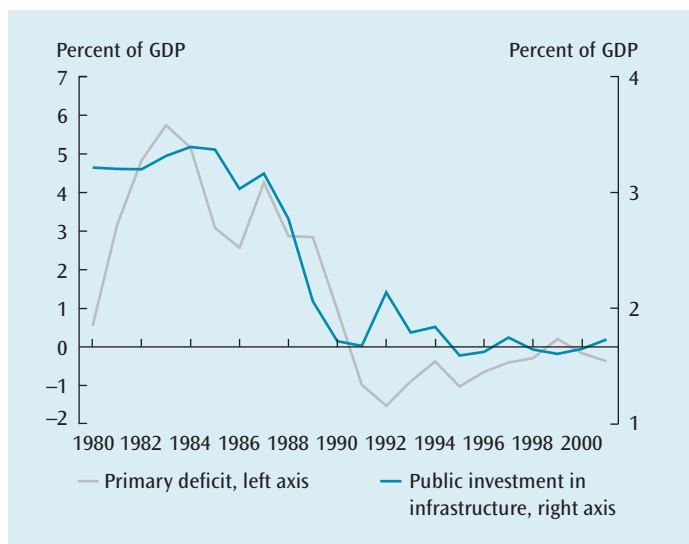
Expanding Provision of Infrastructure Quantity and Quality

Expanding provision of infrastructure services will require three efforts. First, finding the financial resources is essential; when public sector financing for infrastructure investment is diminished because of fiscal constraints, efforts to accelerate growth and meet MDGs are potentially hampered. Second, governments and the development community need

to be open to reaching unserved communities through innovative approaches, which may involve informal or nongovernmental organization (NGO) providers. Third, they need to help subnational entities develop the capacity to raise resources and borrow responsibly to finance infrastructure.

THE FINANCING CONUNDRUM: PROTECTING FISCAL SPACE FOR INFRASTRUCTURE INVESTMENT

The demand for infrastructure and other services is huge; even as the private sector presence has grown, investments have not matched needs. It has become evident that, with or without private sector participation, the public sector plays the key role in guaranteeing infrastructure provision, not only as a regulator but also as a financier. But over the last two decades many countries' public investment in infrastructure as a share of output has decreased to levels that many now believe are too low. In some sectors—telecommunications especially—private investment has replaced public investment. Overall, however, the increase in private investment has been too small to offset the decline in public investment.

FIGURE 1.7 Primary deficit and public infrastructure investment, Latin America, 1980–2000

Source: Calderón and Servén 2004; and FITCH.

In sectors such as roads and water, private investment, even if it has increased, remains a small proportion of total investment.

In many cases the decline of public investment has paralleled attempts to reduce unsustainable budget deficits. Governments have found it easier to cut investment (and maintenance) than to reduce the public sector wage bill and other current expenditures (figure 1.7).

In the long run, attempts to cut deficits by cutting public investment may be partly self-defeating.¹² Public investment can create assets that later generate user fees (power plants, for example) or lead indirectly to higher tax revenues by increasing output (well-chosen roads, for example). Yet conventional fiscal targets focus only on the effects of expenditure reduction on the cash deficit and public debt, not on the long-term effects of well-targeted public investments. They can therefore encourage governments to invest too little.

To minimize the problem of underinvestment in needed infrastructure, governments must consciously offset these biases. One way to do so is to examine the usual indicators of liquidity and debt together with indicators of the long-term fiscal effects of

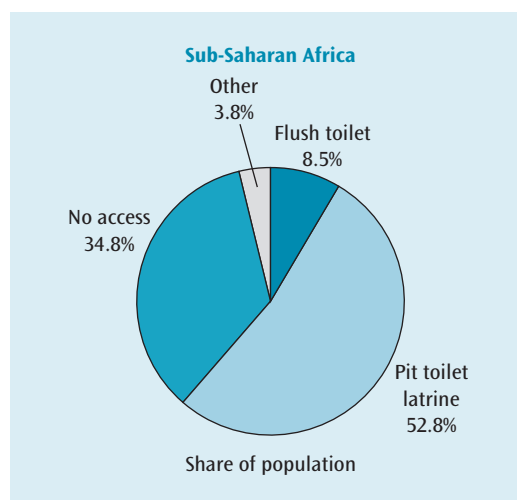
expenditure decisions, including measures of net worth. Where appropriate, these long-term indicators can even be included in fiscal targets or fiscal rules. Estimates of long-term effects are highly uncertain, of course, so governments must guard against self-serving forecasts—for example, by setting conservative targets and by being transparent in their forecasts (IMF 2005).

Such measures need to be accompanied by other measures to select and maintain good investments: (1) mechanisms to improve the techniques and use of cost-benefit analysis (for example, for making decisions about road investments), (2) commercialization (corporatization or privatization) of public enterprises that get their revenue from direct user fees (such as ports, airports, railways, and water and power distribution), and (3) creation of competition in services wherever possible and allowing competing private firms to make investment decisions (for example, in telecommunications and perhaps power generation).

REACHING THE UNSERVED THROUGH INNOVATIVE APPROACHES

Private utility operators are generally thought to provide efficient, sustainable services in urban centers. Yet in practice, particularly in poor and rural areas, private utilities are often absent or inadequate, and households must meet their water, energy, and sanitation needs through self-provision, or through reliance on low-cost, small-scale, and local private providers. Africa has been at the forefront of innovation in water and sanitation for the last 20 years by replacing central planning approaches with community-based management of village water supplies and by implementing technologies like easy-to-maintain hand pumps and low-cost pit latrines (figure 1.8).

What about the vulnerable urban poor? Many nongovernment projects have sought to promote electrification in slums. Case studies of different approaches have been carried out in Brazil, India, the Philippines, and South Africa. One successful program is in Salvador, Brazil, where a privatized distribution company

FIGURE 1.8 Access to various forms of sanitation

Source: Staff analysis of Demographic and Health Surveys; see Briceño-Garmendia and Klytchnikova 2006.

changed course after realizing that it was incurring substantial losses and providing poor service to slum areas. It devised a community agent program that uses NGOs to assist in collection, monitoring, and reporting. The result has been improvements in maintenance, responses to outages, and efficiency of energy use. Recent surveys reveal that 90 percent of customers are highly satisfied with the program. This experience suggests the benefits of working with NGOs and informal providers to improve electricity service to slums (USAID 2004).

It is also increasingly common that low-cost, small-scale, and local private providers help fill a gap that the public network monopolies ignore. In Dar es Salaam, Tanzania, a cholera outbreak in 1996 forced the sewerage and sanitation department to loosen its monopoly on cesspit cleaning. Private providers entered, and now a market for cesspit cleaning is emerging. Households can choose a provider on the basis of price and easy-to-monitor performance (World Bank 2004). Appropriate transport services—such as the pedal rickshaws of Dakha and other South Asian cities, and the bicycle and motorcycle boda-boda services of East Africa—fill

an important gap in local transport services and provide substantial employment for members of poor households (Hine 2005).

BRINGING MONEY AND USERS CLOSER TOGETHER: DECENTRALIZATION AS PART OF THE SOLUTION?

In recent years, the evolving development paradigm has placed new emphasis on the role of subnational entities—local governments, utilities, and development financial institutions—in providing or financing infrastructure and other public services. Subnational entities may in theory be in a better position than national governments to deliver many services efficiently, because they can better encourage local participation, assess local demand, and prove responsive and accountable. Chapter 6 discusses some conditions under which this is likely to be true in practice, including effective downward accountability and clear allocation of responsibilities. Other prerequisites for effective decentralization include robust reporting and audits, as well as debt limits and clear provisions on emergency financial support from central governments.

Effective decentralization would require subnational entities to meet new responsibilities for providing and financing infrastructure services. But many such entities have weak financial and management capabilities and face thin local capital markets. As a result, these subnational governments are not creditworthy and cannot attract private financing for infrastructure. Weak subnational entities remain dependent on central governments, which have different spending priorities and are unable to provide sufficient financing for infrastructure. Under these conditions, service suffers and decentralization fails to deliver its potential gains.

Over the longer term, the development of subnational entities and domestic financial markets will help alleviate these problems. As stronger domestic financial institutions (banks, pension funds, and insurance providers) develop, they will be able to mobilize local resources more efficiently, and they will have a

BOX 1.5 Small-scale private service providers

Small-scale private service providers (SPSPs) have emerged to fill the large gaps in electricity and water access and are now beginning to gain acceptance as a viable alternative for delivering services to those most in need. Despite concerns about quality monitoring and enforcement, SPSPs are a significant force in low-income and remote regions. Indeed, they are estimated to reach as much as half the population in postconflict countries and in weak or failed states. In addition, it is estimated that up to a quarter of the urban population in Latin America and nearly half of urban dwellers in Africa rely on SPSPs for at least a portion of their water supply.

These SPSPs are largely single-purpose entities that often operate without any formal legal status. They provide services through widely varying technologies, ranging in sophistication from water tankers and diesel generator dealers to stand-alone networks and power grids. A majority of SPSPs tap financing through a combination of three sources: their own earnings and savings, loans from friends and family, and money borrowed from formal and informal lenders. The total establishment costs for private water network operators ranged from \$100 per connection to \$300 per connection, depending mainly on local circumstances and markets, whereas the average investment for a second-hand water tanker was \$10,000–15,000. Investment requirements for private electricity networks ranged from \$1,000 to a few million dollars.

Many communities would go unserved if not for SPSPs. Governments and donors should acknowledge this reality by working with these providers to improve their access to financing, which will help SPSPs expand their coverage while improving the quality, efficiency, and affordability of their services. Establishing a clear policy and regulatory framework for SPSPs will also help them expand their coverage.

Source: Based on Kariuki and Schwartz 2005.

BOX 1.6 Building creditworthy borrowers

Although decentralization is assigning greater responsibility for infrastructure and other public services to subnational entities—local governments, public utilities, and development financial institutions—those entities often lack the ability to attract the necessary local currency financing. At the same time, as national governments devolve responsibility for infrastructure and other services, they prefer to use their borrowing capacity to finance other activities, and they are increasingly limiting their transfers to subnationals.

To make decentralization work, national governments are asking the World Bank and other multilateral agencies to provide financing directly to subnationals, in local currency and without sovereign guarantees. Most other multilateral agencies are able to do this, but the World Bank's Articles of Agreement require guarantees.

The Bank Group's only instrument to lend to subnationals without sovereign guarantees is IFC's Municipal Fund, which lends to subnationals in local currency and at market-based interest rates. Based on early success, the Bank and IFC are working together to scale up the Municipal Fund and to transform their approach to subnational lending. The goal is to build creditworthy subnational entities using technical assistance and financing so they access commercial financing on the strength of their own credit.

growing demand for local, medium- and long-term debt. They will be able to assess and to price credit risk and will seek opportunities to invest in domestic infrastructure assets that offer attractive risk/reward profiles. International competition among borrowers and among lenders will lead to economic, risk-adjusted access to credit. These changes have begun, and multilateral agencies are helping to accelerate them with financing and technical assistance. Box 1.6 describes one way in which the World Bank Group is contributing.

Notes

1. These projections come with several caveats. First, they are based on preliminary 2005 estimates of population and national-accounts GDP growth, as well as estimates of income distribution, all of which may be subject to considerable revision. Second, while for some countries (most notably India and China) preliminary household survey data are available for 2004, for other countries the latest available household data are from 2002. Third, the estimates for India—which loom large in the South Asia estimates—are particularly problematic because of a change in survey methodology in 2004, which results in poverty estimates that are not strictly comparable with those of earlier years. All of these caveats mean that the actual poverty estimates for 2005, when they become available, may differ substantially from these projections.

2. Some country groups in table 1.1 include only a small number of countries. In the low-income portion of the table, East Asia and Pacific includes Lao PDR, Myanmar, Mongolia, Papua New Guinea, the Solomon Islands, and Vietnam; Europe and Central Asia includes the Kyrgyz Republic and Moldova; Latin America and the Caribbean includes Haiti and Nicaragua; and Middle East and North Africa includes Yemen. In the middle-income countries' portion of the table, South Asia includes Sri Lanka, and Middle East and North Africa includes Algeria, the Arab Republic of Egypt, the Islamic Republic of Iran, Jordan, Morocco, Oman, the Syrian Arab Republic, and Tunisia.

3. In a small number of oil-producing Sub-Saharan African countries, fiscal balances improved

dramatically in 2005, leading to a significant fall in the average value of the fiscal balance-to-GDP ratio for the region as a whole. Excluding these countries results in an average fiscal balance for Sub-Saharan Africa of –3.4 percent of GDP, which is nevertheless lower than in earlier years.

4. Staff assessments are obtained from a survey by IMF country teams of the quality of policies in each area.

5. This section is taken from *Doing Business in 2006*. Unless otherwise specified, data refer to 2005, the latest year for which comparable data are available.

6. The global commitment to improving access to drinking water supply and sanitation is reflected in MDG 7: to halve the proportion of people without sustainable access to safe drinking water and basic sanitation. Progress toward this goal is tracked by the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (JMP). Monitoring access to water and sanitation on an annual basis is not practical, so the JMP analyzes household survey data from around the globe every few years to detect overall trends; see below for a discussion of monitoring challenges.

7. Returns on infrastructure investment tend to fall, sometimes sharply, as economies reach maturity. For details see Briceño-Garmendia, Estache, and Shafik 2004.

8. See the section of infrastructure financing below for further discussion of this issue.

9. The (still) predominantly rural African countries and East Asia and Pacific region are logging urban growth rates of 4.1 percent and 3.3 percent, respectively, compared with rates of 1.3 percent and –0.6 percent for rural growth.

10. For details on the goal of improving urban slums and preventing the emergence of new slum areas, see United Nations 2005.

11. For detail, see WHO/UNICEF 2005.

12. Although there are opportunities for cutting waste and corruption costs in some public investment projects, the evidence suggests that public investment in infrastructure in developing countries increases output and growth. See Calderón and Servén (2005) for surveys of the recent empirical literature. For a discussion of corruption issues, see chapter 7 of this report.

