

# Technical notes

## General notes

.. means that data are not available or that aggregates cannot be calculated because of missing data in the years shown

\$ means U.S. dollars

A blank means not applicable or, for an aggregate, not analytically meaningful.

A billion is 1,000 million.

## 1. Basic indicators

TABLE 1.1. BASIC INDICATORS

*Population* is World Bank estimates, usually projected from the most recent population censuses or surveys (mostly from 1980–2005). Refugees not permanently settled in the country of asylum are generally considered to be part of the population of their country of origin.

*Land area* is the land surface area of a country, excluding inland waters, national claims to continental shelf, and exclusive economic zones.

*Gross national income (GNI)* per capita is the total domestic and foreign value added claimed by residents, which comprises gross domestic product plus net factor income from abroad (the income residents receive from abroad for factor services including labor and capital) less similar payments made to nonresidents who contribute to the domestic economy, divided by midyear population. It is calculated using the World Bank Atlas method with constant 2000 exchange rates (box 1). Growth rates are shown in real terms. They have been calculated by the least-squares method using constant 2000 GNI per capita dollars (see also table 2.8).

*Life expectancy at birth* is the number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth were to remain the same throughout its life. Data are World Bank estimates based on data from the United Nations Population Division, the United Nations Statistics Division, and national statistical offices.

Box 1

### The World Bank Atlas method for converting gross national income to a common denominator

The *World Bank Atlas* method uses a three-year average of conversion factors to convert gross national income (GNI) data, expressed in different national currencies, to a common denomination, conventionally U.S. dollars. The *Atlas* conversion factor for any year is the average of the official exchange rate or alternative conversion factor for that year and for the two preceding years, after adjusting them for differences in relative inflation between that country and the United States. This three-year average smoothes fluctuations in prices and exchange rates for each country. The resulting GNI in U.S. dollars is divided by the midyear population for the latest of the three years to derive GNI per capita.

The following formulas describe the procedures for computing the conversion factor for year  $t$ :

$$e_{t-2,t}^* = \frac{1}{3} \left[ e_{t-2} \left( \frac{P_t}{P_{t-2}} / \frac{P_t^{\$}}{P_{t-2}^{\$}} \right) + e_{t-1} \left( \frac{P_t}{P_{t-1}} / \frac{P_t^{\$}}{P_{t-1}^{\$}} \right) + e_t \right]$$

and for calculating per capita GNI in U.S. dollars for year  $t$ :

$$Y_t^{\$} = (Y_t/N_t) + e_{t-2,t}^*$$

where  $Y_t$  is current GNI (local currency) for year  $t$ ,  $P_t$  is the GNI deflator for year  $t$ ,  $N_t$  is midyear population for year  $t$ , and  $P_t^{\$}$  is the U.S. GNI deflator for year  $t$ .

*Under-five mortality rate* is the probability that a newborn baby will die before reaching age 5, if subject to current age-specific mortality rates. The probability is expressed as a rate per 1,000.

*Gini coefficient* is the most commonly used measure of inequality. The coefficient ranges from 0, which reflects complete equality, to 1, which indicates complete inequality (one person has all the income or consumption, all others have none). Graphically, the Gini coefficient can be easily represented by the area between the Lorenz curve and the line of equality.

*Adult literacy rate* is the percentage of adults ages 15 and older who can, with understanding, read and write a short, simple statement on their everyday life.

*Net official development assistance per capita* is net disbursements of loans and grants from all official sources on concessional financial terms divided by the midyear population for the corresponding year

*Regional aggregates* for GNI per capita, life expectancy at birth, and adult literacy rates are weighted by population.

*Source:* Data on population, land area, GNI per capita, life expectancy at birth, under-five mortality, Gini coefficient, and adult literacy are from the World Bank's World Development Indicators database. Data on aid flows are from the Organisation for Economic Co-operation and Development's Geographic Distribution of Aid Flows to Developing Countries database.

## 2. National accounts

TABLE 2.1. GROSS DOMESTIC PRODUCT, NOMINAL

*Gross domestic product (GDP), nominal*, is the total output of goods and services for final use produced by residents and non-residents, regardless of the allocation to domestic and foreign claims. It is calculated without making deductions for depreciation of fabricated capital assets or depletion and degradation of natural resources. GDP figures are shown at market prices (also known as purchaser values) and converted from national currency GDP series in current prices to U.S. dollars at official annual exchange rates.

The sum of the components of GDP by industrial origin (presented here as value added) will not normally equal total GDP for several reasons. First, components of GDP by expenditure are individually rescaled and summed to provide a partially rebased series for total GDP. Second, total GDP is shown at purchaser value, while value added components are conventionally reported at producer prices. As explained above, purchaser values exclude net indirect taxes, while producer prices include indirect taxes. Third, certain items, such as imputed bank charges, are added in total GDP.

*Source:* World Bank country desk data.

TABLE 2.2. GROSS DOMESTIC PRODUCT, REAL  
*Gross domestic product (GDP), real*, is obtained by converting national currency GDP series to U.S. dollars using constant (2000) exchange rates. For countries where the official exchange rate does not effectively reflect the rate applied to actual foreign exchange transactions, an alternative currency conversion factor has been used.

*Source:* World Bank country desk data.

TABLE 2.3. GROSS DOMESTIC PRODUCT GROWTH

*Gross domestic product (GDP) growth* is the average annual growth rate of real GDP (table 2.2) at market prices based on constant local currency. Aggregates are based on constant 2000 U.S. dollars.

*Source:* World Bank country desk data.

TABLE 2.4. GROSS DOMESTIC PRODUCT PER CAPITA, REAL

*Gross domestic product (GDP) per capita, real*, is calculated by dividing real GDP (table 2.2) by corresponding midyear population.

*Source:* World Bank country desk data.

TABLE 2.5. GROSS DOMESTIC PRODUCT PER CAPITA GROWTH

*Gross domestic product (GDP) per capita growth* is the average annual growth rate of real GDP per capita (table 2.4).

*Source:* World Bank country desk data.

TABLE 2.6. GROSS NATIONAL INCOME, NOMINAL

*Gross national income, nominal*, is the sum of value added by all resident producers plus any product taxes (less subsidies) not included in the valuation of output plus net receipts of primary income (compensation of employees and property income) from abroad. Data are converted from national currency in current prices to U.S. dollars at official annual exchange rates. See box 2 for a discussion of the differences between gross domestic product and gross national income.

*Source:* World Bank and Organisation for Economic Co-operation and Development (OECD) national accounts data.

TABLE 2.7. GROSS NATIONAL INCOME, REAL  
*Gross national income, real*, is obtained by converting national currency gross national income series to U.S. dollars using constant (2000) exchange rates.

*Source:* World Bank and OECD national accounts data.

TABLE 2.8. GROSS NATIONAL INCOME PER CAPITA

*Gross national income (GNI) per capita* is calculated using the *World Bank Atlas* method (see box 1). It is similar in concept to GNI per capita in current prices, except that the use of three-year averages of exchange rates smoothes out sharp fluctuations from year to year.

*Source:* World Bank country desk data.

TABLE 2.9. GROSS DOMESTIC PRODUCT DEFLATOR (LOCAL CURRENCY SERIES)

*Gross domestic product (GDP) deflator (local currency series)* is nominal GDP in current local currency divided by real GDP in constant 2000 local currency, expressed as an index with base year 2000.

*Source:* World Bank country desk data.

TABLE 2.10. GROSS DOMESTIC PRODUCT DEFLATOR (U.S. DOLLAR SERIES)

*Gross domestic product (GDP) deflator (U.S. dollar series)* is nominal GDP in current U.S. dollars (table 2.1) divided by real GDP in constant 2000 U.S. dollars (table 2.2), expressed

as an index with base year 2000. The series shows the effects of domestic price changes and exchange rate variations.

*Source:* World Bank country desk data.

TABLE 2.11. GROSS DOMESTIC SAVINGS

*Gross domestic savings* is calculated by deducting total consumption (table 2.13) from nominal gross domestic product (table 2.1).

*Source:* World Bank country desk data.

TABLE 2.12. GROSS NATIONAL SAVINGS

*Gross national savings* is the sum of gross domestic savings (table 2.11), net factor income from abroad, and net private transfers from abroad. The estimate here also includes net public transfers from abroad.

*Source:* World Bank country desk data.

TABLE 2.13. GENERAL GOVERNMENT FINAL CONSUMPTION

*General government consumption* is all current expenditure for purchases of goods and services by all levels of government, including capital expenditure on national defense and security. Other capital expenditure by government is included in capital formation.

*Source:* World Bank country desk data.

TABLE 2.14. FINAL CONSUMPTION EXPENDITURE

*Final consumption expenditure* (formerly total consumption) is the sum of household final consumption expenditure (private consumption) and general government final consumption expenditure (table 2.13), shown as a share of gross domestic product. This estimate includes any statistical discrepancy in the use of resources relative to the supply of resources. Private consumption, not separately shown here, is the value of all goods and services purchased or received as income in kind by households and nonprofit institutions. It excludes purchases of dwellings, but includes imputed rent for owner-occupied dwellings. In practice, it includes any statistical discrepancy in the use of resources.

*Source:* World Bank country desk data.

Gross domestic product (GDP) is the broadest quantitative measure of a nation's total economic activity. It measures, in market prices, the value of economic activity within a country's geographic borders, including all final goods and services produced over a period of time (usually a year). There are two ways of calculating GDP. The expenditure approach sums consumption, investment, government expenditure, and net exports. The income approach sums wages, rents, interests, profits, nonincome charges, and net foreign factor income earned. Both methods should yield the same results because total expenditure on goods and services by definition must equal the value of goods and services produced, which must equal the total income paid to the factors that produced the goods and services.

GDP is just one way of measuring the total output of an economy. Gross national product (GNP) is another. It measures the value of all goods and services produced by permanent residents of a country regardless of their location. For example, the income of a U.S. citizen working in Paris would count toward U.S. GNP—but also French GDP. To take another example, revenue from activities of Euro Disney in Paris would count toward U.S. GNP because the Walt Disney Company is a U.S.-owned company, but because the activities take place in Paris, it would count toward French GDP.

The distinction between GDP and GNP is the difference in how production by foreigners in a country and by nationals outside of

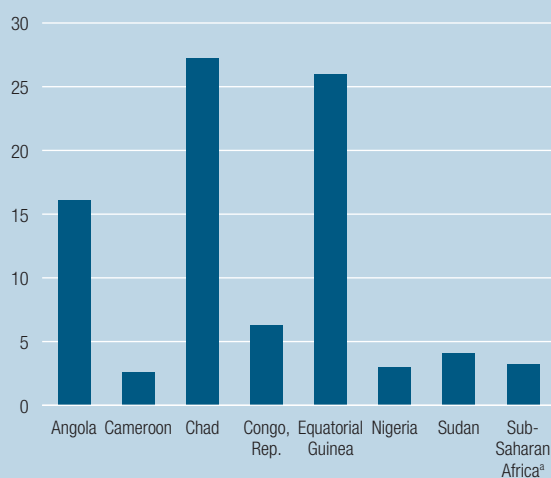
a country is counted. For GDP production by foreigners within a country is included and production by nationals outside a country is not. For GNP production by foreigners within a country is not included but production by nationals outside a country is. Thus, while GDP is the value of goods and services produced within a country, GNP is the value of goods and services produced by citizens of a country.

This distinction matters little for countries such as the United States, where payments to U.S. residents, including U.S.-based firms, from their activities in the rest of the world are roughly the same as payments to foreign residents from their activities in the United States. But for developing countries GDP may be a poor indicator of financial performance. For example, a country with large amounts of foreign direct investment, the profits of which are repatriated, will have a high GDP but will not see a commensurate raise in available capital or living standards. A similar situation occurs in oil-producing developing countries; a large share of oil profits is repatriated by foreign oil companies.

Figure 1 shows how new foreign direct investment is rapidly flowing to mineral exporters in Africa. Figure 2 shows the difference between GDP and GNP for African economies that rely heavily on foreign direct investment. This comparison is important because it shows the difference between how much income is generated in a particular country and how much income is repatriated.

Figure 1 Foreign direct investment

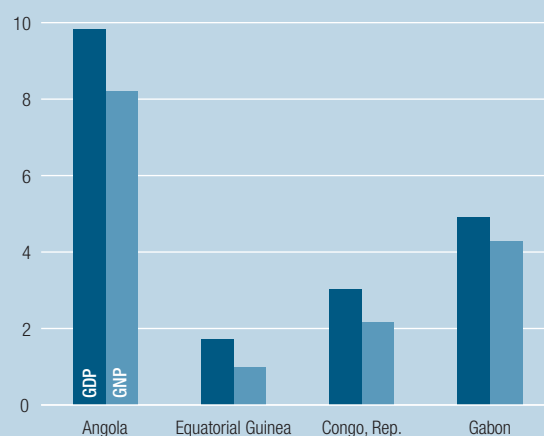
Foreign direct investment inflows, oil-exporting countries in Sub-Saharan Africa, 2000–02 (% of GDP, three-year average)



a. Data are weighted by GDP.  
Source: World Bank Development Data Platform.

Figure 2 Differences between gross domestic product and gross national product for select African countries

Gross domestic product and gross national product, 2000–02 (\$ billions, three-year average)



Source: World Bank country desk data.

TABLE 2.15. FINAL CONSUMPTION EXPENDITURE PER CAPITA

Final consumption expenditure per capita is final consumption expenditure in current

U.S. dollars (table 2.14) divided by midyear population.

Source: World Bank country desk data.

TABLE 2.16. AGRICULTURE VALUE ADDED

*Agriculture value added* is the gross output of forestry, hunting, and fishing less the value of their intermediate inputs. It is shown at factor cost for most countries, but it is shown at market prices, that is, including intermediate inputs, for Botswana, Cameroon, Chad, Democratic Republic of Congo, Republic of Congo, Gabon, Guinea, Madagascar, Mali, Morocco, Niger, Rwanda, Senegal, Togo, and Zambia.

Source: World Bank country desk data.

TABLE 2.17. INDUSTRY VALUE ADDED

*Industry value added* is the gross output of mining, manufacturing, construction, electricity, water, and gas, less the value of their intermediate inputs. It is shown at factor cost for most countries, but it is shown at market prices, that is, including intermediate inputs, for Botswana, Cameroon, Chad, Democratic Republic of Congo, Republic of Congo, Gabon, Guinea, Madagascar, Mali, Morocco, Niger, Rwanda, Senegal, Togo, and Zambia.

Source: World Bank country desk data.

TABLE 2.18. SERVICES VALUE ADDED

*Services value added* is the gross output of all other branches of economic activity, including government, less the value of their intermediate inputs. It is shown at factor cost for most countries, but it is shown at market prices, that is, including intermediate inputs, for Botswana, Cameroon, Chad, Democratic Republic of Congo, Republic of Congo, Gabon, Guinea, Madagascar, Mali, Morocco, Niger, Rwanda, Senegal, Togo, and Zambia. Other items, such as imputed bank service charges (which are difficult to assess in the same fashion for all countries) and any corrections for statistical discrepancies, are not included.

Source: World Bank country desk data.

TABLE 2.19. GROSS FIXED CAPITAL FORMATION

*Gross fixed capital formation* consists of gross domestic fixed capital formation plus net changes in the level of inventories. Gross capital formation comprises outlays by

the public sector (table 2.20) and the private sector (table 2.21). Examples include improvements in land, dwellings, machinery, and other equipment. For some countries the sum of gross private investment and gross public investment does not total gross domestic investment due to statistical discrepancies.

Source: World Bank country desk data.

TABLE 2.20. GENERAL GOVERNMENT FIXED CAPITAL FORMATION

*General government fixed capital formation* is gross domestic fixed capital formation (see table 2.19) for the public sector.

Source: World Bank country desk data.

**Table 1** Method used to calculate regional aggregates and period averages in section 2 tables

Table	Method 1	Method 2	Method 3	Method 4	Method 5	Method 6
2.1 Gross domestic product, nominal	x			x		
2.2 Gross domestic product, real	x				x	
2.3 Gross domestic product growth	x				x	
2.4 Gross domestic product per capita, real		x			x	
2.5 Gross domestic product per capita, growth	x			x		
2.6 Gross national income, nominal	x			x		
2.7 Gross national income, real	x				x	
2.8 Gross national income per capita		x		x		
2.9 Gross domestic product deflator (local currency series)		x				x
2.10 Gross domestic product deflator (U.S. series)		x		x		
2.11 Gross domestic savings		x		x		
2.12 Gross national savings		x		x		
2.13 General government final consumption		x		x		
2.14 Final consumption expenditure		x		x		
2.15 Final consumption expenditure per capita		x		x		
2.16 Agriculture value added	x				x	
2.17 Industry value added	x				x	
2.18 Services value added	x				x	
2.19 Gross fixed capital formation		x		x		
2.20 General government fixed capital formation		x		x		
2.21 Private sector fixed capital formation		x		x		
2.22 Resource balance (exports minus imports)			x	x		
2.23 Exports of goods and services, nominal	x			x		
2.24 Imports of goods and services, nominal	x			x		
2.25 Exports of goods and services, real	x				x	
2.26 Imports of goods and services, real	x				x	

Note: Method 1 is the simple total of the gap-filled indicator; method 2 is the simple total of the gap-filled main indicator divided by the simple total of the gap-filled secondary indicator; method 3 is the simple total of the first gap-filled main indicator minus the simple total of the second gap-filled main indicator, divided by the simple total of the secondary indicator; method 4 is the arithmetic mean (using the same series as shown in the table; that is, ratio if the rest of the table is shown as ratio, level if the rest of the table is shown as level, growth rate if the rest is shown as growth rate, and so on); method 5 is the least-squares growth rate (using the main indicator); method 6 is the median.

TABLE 2.2.1. PRIVATE SECTOR FIXED CAPITAL FORMATION

*Private sector fixed capital formation* is gross domestic fixed capital formation (see table 2.19) for the private sector.

*Source:* World Bank country desk data.

TABLE 2.2.2. RESOURCE BALANCE (EXPORTS MINUS IMPORTS)

*Resource balance* is the difference between free on board exports (table 2.23) and cost, insurance, and freight imports (table 2.24) of goods and services (or the difference between gross domestic savings and gross capital formation). The resource balance is shown as a share of nominal gross domestic product (table 2.1).

*Source:* World Bank country desk data.

TABLES 2.2.3 AND 2.2.4. EXPORTS AND IMPORTS OF GOODS AND SERVICES, NOMINAL  
*Exports and imports of goods and services, nominal*, comprise all transactions between residents of an economy and the rest of the world involving a change in ownership of general merchandise, goods sent for processing and repairs, nonmonetary gold, and services expressed in current U.S. dollars.

*Source:* World Bank country desk data.

TABLES 2.2.5 AND 2.2.6. EXPORTS AND IMPORTS OF GOODS AND SERVICES, REAL  
*Exports and imports of goods and services, real*, are defined as in tables 2.23 and 2.24, but expressed in constant 2000 U.S. dollars.

*Source:* World Bank country desk data.

### 3. Millennium Development Goals

TABLE 3.1. MILLENNIUM DEVELOPMENT GOAL 1: ERADICATE EXTREME POVERTY AND HUNGER

*Share of population below national poverty line (poverty headcount ratio)* is the percentage of the population living below the national poverty line. National estimates are based on population-weighted subgroup estimates from household surveys. See box 3 for a discussion of cross-country comparisons of poverty and box 4 for a discussion of objective and subjective measures of poverty.

*Share of population below purchasing power parity (PPP) \$1 a day* is the percentage of the population living on less than \$1.08 a day at 1993 international prices. As a result of revisions in PPP exchange rates, poverty rates for individual countries cannot be compared with poverty rates reported in earlier editions.

*Poverty gap ratio at \$1 a day* is the mean shortfall from the poverty line (counting the nonpoor as having zero shortfall), expressed as a percentage of the poverty line. This measure reflects the depth of poverty as well as its incidence.

*Share of poorest quintile in national consumption or income* is the share of consumption, or in some cases income, that accrues to the poorest 20 percent of the population.

*Prevalence of child malnutrition, underweight*, is the percentage of children under age 5 whose weight for age is more than two standard deviations below the median for the international reference population ages 0–59 months. The reference population, adopted by the World Health Organization in 1983, is based on children from the United States, who are assumed to be well nourished.

*Population below minimum dietary energy consumption* (also referred to as prevalence of undernourishment) is the population whose food intake is insufficient to meet dietary energy requirements continuously.

*Source:* Data on poverty measures are prepared by the World Bank's Development Research Group. The national poverty lines are based on the World Bank's country poverty assessments. The international poverty lines are based on nationally representative primary household surveys conducted by national statistical offices or by private agencies under the supervision of government or international agencies and obtained from government statistical offices and World Bank country departments. The World Bank has prepared an annual review of its poverty work since 1993. For details on data sources and methods used in deriving the World Bank's latest estimates, see Chen and Ravallion (2004).

Data have been compiled by World Bank staff from primary and secondary sources. Efforts have been made to harmonize these data series with those published on the United Nations Millennium Development Goals

Three things are needed to measure poverty in a country: an indicator of well-being or welfare, such as consumption per capita or per equivalent adult; a threshold, or poverty line, to which each household's welfare can be compared; and a poverty measure that aggregates the information on poverty obtained for each household into meaningful statistics for a country as a whole. Different poverty estimates can result depending on the indicator, threshold, or poverty measure used. Standard measures used to monitor global poverty trends, such as the share of the population living on less than \$1 or \$2 a day, are typically not used for country-specific work. It is indeed better for country work to adapt the methodology used for estimating poverty to country specifics, be it to country characteristics or data quality. Still, this does not mean that cross-country comparisons are not useful. They can be used to suggest revisions in poverty estimates, as in the CFA franc zone.

The table and figure show World Bank poverty estimates from a series of recent poverty assessments for countries of the CFA franc zone. Poverty comparisons between the countries are facilitated by the countries' shared currency, similar inflation rates, and free trade between member countries. Each country has a slightly different methodology for estimating poverty. Most use a poverty line based on the cost of basic needs method, although they differ in whether they use consumption per capita or per equivalent adult and in the caloric requirement norm used to determine what households should be able to purchase. The surveys used in each country also differ. But an inverse relationship clearly exists between the natural log of GDP per capita and the share of the population living in poverty.<sup>1</sup> The curve fitted through the scatter plot in the figure gives a very rough idea of the poverty level expected for a given GDP per capita. Divergence from this curve may stem from issues of data quality or from different levels of inequality between countries, for example.

These simple comparisons of poverty levels between countries have actually been used to suggest changes in methodologies for measuring poverty at the country level in the CFA franc zone. Preliminary estimates for Togo presented at a February 2007 workshop were much higher than those reported in the table and suggested that Togo had by far the highest poverty rate in the CFA franc zone—a surprising finding given the country's relative GDP per capita. The data in the table led to a downward revision of Togo's poverty estimates. Similarly, previous estimates suggested that Mali had a much higher poverty rate than shown in the table. The data helped in suggesting alternative poverty estimates at a September 2007 workshop in Bamako. Obviously, caution should be exercised in making cross-country poverty comparisons. But given the different assumptions that countries use to estimate poverty and their debatable strengths and weaknesses, it is often useful to use simple cross-country comparisons to help inform the methodological choices made for poverty measurement in any given country.

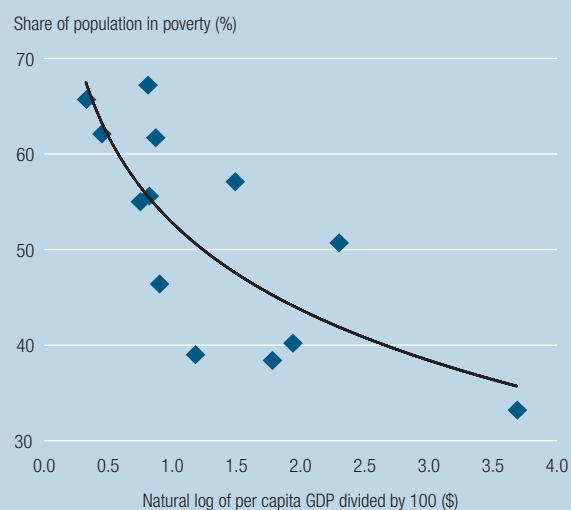
1. GDP per capita is expressed in U.S. dollars for simplicity, despite the fact that the CFA franc appreciated against the dollar in recent years.

#### Poverty in the CFA Franc zone: Estimates by country

Country	Household survey year	GDP per capita (\$)	Natural log of GDP per capita divided by 100	Method for measuring poverty	Share of population in poverty (%)	Gini index
Benin	2003	325	1.18	Relative	39.0	0.36
Burkina Faso	2003	247	0.90	Cost of basic needs	46.4	0.46
Cameroon	2001	695	1.94	Cost of basic needs	40.2	0.41
Central African Republic	2003	225	0.81	Cost of basic needs	67.2	0.44
Chad	2003	211	0.75	Cost of basic needs	55.0	0.37
Congo, Rep.	2005	994	2.30	Cost of basic needs	50.7	0.46
Côte d'Ivoire	2002	592	1.78	Relative	38.4	0.50
Gabon	2005	3,991	3.69	Cost of basic needs	33.2	0.44
Guinea-Bissau	2002	138	0.33	\$1 a day	65.7	0.36
Mali	2001	226	0.82	Cost of basic needs	55.6	0.38
Niger	2005	158	0.45	Cost of basic needs	62.1	0.47
Senegal	2001	442	1.49	Cost of basic needs	57.1	0.34
Togo	2006	238	0.87	Cost of basic needs	61.7	0.32

Note: Recent household survey data are not available for Equatorial Guinea.  
Source: Wodon 2007b.

#### Poverty and per capita GDP



Source: Wodon 2007b.

Several African countries have succeeded at increasing their economic growth rate, translating into substantial poverty reduction. At the same time people have not felt their poverty situation improving, a source of concern to elected policymakers. To what extent is there a divergence between objective and subjective measures of poverty, and what explains it?

Data from household surveys can help answer this question. The table below provide poverty estimates from selected World Bank poverty assessments in countries with high growth rates between repeated household surveys with consumption data. (Growth vanished in Guinea and slowed down in Cameroon after 2001–02). The table also provides data on poverty as measured in the household surveys and on subjective perceptions regarding poverty trends. In all four countries growth significantly reduced poverty, often with an elasticity of poverty reduction to growth of  $-1$ . Inequality increased in some countries but decreased in others, suggesting no general pattern. But perceptions regarding poverty were not as favorable: a majority of respondents declared that poverty had worsened in their country or community. Even for Senegal in 2001–06, a larger share of the population cited a deteriorating poverty situation in their community (although perceptions seem to have improved over those for 1994–2001).

Four tentative explanations can explain this apparent disconnect between a substantial decline in objective poverty measures and perceptions of a deterioration in the countries' or communities' poverty situation. First, when assessing trends in poverty subjectively, households may be influenced by persistent and in some cases increasing inequality. In a relative deprivation framework growth without a reduction in inequality may lead to higher feelings of deprivation over time. Second, even if many households benefit from higher consumption levels over time, their vulnerability to shocks remains very high. West African countries, among others, have been subjected to weather and commodity price shocks in recent years. Third, subjective

#### Objective and subjective perceptions of poverty in West Africa, by country (percent)

Measure or perception of poverty	Cameroon 1996–2001	Guinea 1994–2002	Mauritania 1990–2000	Senegal	
				1994–2001	2001–06
<i>Growth and objective poverty</i>					
Cumulative growth in GDP per capita (1)	12.7	16.7	16.8	18.9	9.3
Initial poverty incidence (2)	53.3	62.6	56.6	67.8	57.1
Final poverty incidence (3)	40.2	49.1	46.7	57.1	50.8
Poverty reduction (4) = [(3)–(2)]/(2)	–0.246	–0.216	–0.175	–0.158	–0.110
Elasticity of poverty to GDP growth (4)/(1)	–1.94	–1.19	–1.04	–0.84	–1.19
<i>Gini index of inequality</i>					
Initial Gini index	40.6	45.8	33.8 <sup>a</sup>	32.6	34.1
Final Gini index	40.8	41.0	39.0	34.2	32.0
<i>Perception regarding poverty</i>					
Deterioration	54.1	23.1	30.9	64.3	43.9
No change	17.4	49.5	40.8	12.8	22.1
Improvement	17.3	24.5	28.3	19.0	31.2
No opinion	11.2	2.9	—	4.0	2.8

a. Data are for 1996.  
Source: Wodon 2007a.

perceptions of poverty may also account for nonmonetary aspects of well-being. Low levels of satisfaction with publicly provided services for education, health, and basic infrastructure may affect negatively perceptions in most countries. Fourth, even if the share of the population living in poverty is reduced over time, the number of the poor is increasing due to high population growth.

website ([www.un.org/millenniumgoals](http://www.un.org/millenniumgoals)), but some differences in timing, sources, and definitions remain.

Data on child malnutrition and population below minimum dietary energy consumption are from the Food and Agriculture Organization (see [www.fao.org/faostat/foodsecurity/index\\_en.htm](http://www.fao.org/faostat/foodsecurity/index_en.htm)).

TABLE 3.2. MILLENNIUM DEVELOPMENT GOAL 2: ACHIEVE UNIVERSAL PRIMARY EDUCATION  
*Primary education* provides children with basic reading, writing, and mathematics skills along with an elementary understanding of such subjects as history, geography, natural science, social science, art, and music.

*Net primary enrollment ratio* is the ratio of children of official primary school age based on the International Standard Classification of Education 1997 who are enrolled in primary school to the population of the corresponding official primary school age.

*Primary completion rate* is the percentage of students completing the last year of primary school. It is calculated as the total number of students in the last grade of primary school minus the number of repeaters in that grade divided by the total number of children of official graduation age.

*Share of cohort reaching grade 5* is the percentage of children enrolled in grade 1 of primary school who eventually reach grade 5.



The estimate is based on the reconstructed cohort method.

*Youth literacy rate* is the percentage of people ages 15–24 who can, with understanding, both read and write a short, simple statement about their everyday life.

*Source:* Data are from the United Nations Educational, Scientific, and Cultural Organization Institute for Statistics. Data have been compiled by World Bank staff from primary and secondary sources. Efforts have been made to harmonize these data series with those published on the United Nations Millennium Development Goals website ([www.un.org/millenniumgoals](http://www.un.org/millenniumgoals)), but some differences in timing, sources, and definitions remain.

TABLE 3.3. MILLENNIUM DEVELOPMENT GOAL 3: PROMOTE GENDER EQUALITY AND EMPOWER WOMEN

*Ratio of girls to boys in primary and secondary school* is the ratio of female to male gross enrollment rate in primary and secondary school.

*Ratio of young literate women to men* is the ratio of the female to male youth literacy rate.

*Women in national parliament* are the percentage of parliamentary seats in a single or lower chamber occupied by women.

*Share of women employed in the nonagricultural sector* is women wage employees in the nonagricultural sector as a share of total nonagricultural employment.

*Source:* Data on net enrollment and literacy are from the United Nations Educational, Scientific, and Cultural Organization Institute for Statistics. Data on women in national parliaments are from the Inter-Parliamentary Union. Data on women's employment are from the International Labour Organization's Key Indicators of the Labour Market, fourth edition.

TABLE 3.4. MILLENNIUM DEVELOPMENT GOAL 4: REDUCE CHILD MORTALITY

*Under-five mortality rate* is the probability that a newborn baby will die before reaching age 5, if subject to current age-specific mortality rates. The probability is expressed as a rate per 1,000.

*Infant mortality rate* is the number of infants dying before reaching one year of age, per 1,000 live births.

*Child immunization rate, measles*, is the percentage of children ages 12–23 months who received vaccinations for measles before 12 months or at any time before the survey. A child is considered adequately immunized against measles after receiving one dose of vaccine.

*Source:* Data on under-five and infant mortality are the harmonized estimates of the World Health Organization, United Nations Children's Fund (UNICEF), and the World Bank, based mainly on household surveys, censuses, and vital registration, supplemented by the World Bank's estimates based on household surveys and vital registration. Other estimates are compiled and produced by the World Bank's Human Development Network and Development Data Group in consultation with its operational staff and country offices. Data on child immunization are from the World Health Organization and UNICEF estimates of national immunization coverage.

TABLE 3.5. MILLENNIUM DEVELOPMENT GOAL 5: IMPROVE MATERNAL HEALTH

*Maternal mortality ratio, modeled estimate*, is the number of women who die from pregnancy-related causes during pregnancy and childbirth, per 100,000 live births.

*Births attended by skilled health staff* are the percentage of deliveries attended by personnel trained to give the necessary supervision, care, and advice to women during pregnancy, labor, and the postpartum period; to conduct deliveries on their own; and to care for newborns.

*Source:* Data on maternal mortality are from AbouZahr and Wardlaw (2003). Data on births attended by skilled health staff are from the United Nations Children's Fund's State of the World's Children 2006 and Child-info, and Demographic and Health Surveys by Macro International.

TABLE 3.6. MILLENNIUM DEVELOPMENT GOAL 6: COMBAT HIV/AIDS, MALARIA, AND OTHER DISEASES

*Prevalence of HIV* is the percentage of people ages 15–49 who are infected with HIV.

*Contraceptive prevalence rate* is the percentage of women who are practicing, or whose sexual partners are practicing, any form of contraception. It is usually measured for married women ages 15–49 only.

*Deaths due to malaria* is the number of malaria deaths per 100,000 people.

*Share of children under age 5 sleeping under insecticide-treated bednets* is the percentage of children under age 5 with access to an insecticide-treated bednet to prevent malaria.

*Incidence of tuberculosis* is the estimated number of new tuberculosis cases (pulmonary, smear positive, and extrapulmonary), per 100,000 people.

*Tuberculosis cases detected under DOTS* is the percentage of estimated new infectious tuberculosis cases detected under DOTS, the internationally recommended tuberculosis control strategy.

*Source:* Data on HIV prevalence are from the Joint United Nations Programme on HIV/AIDS and the World Health Organization's (WHO) 2006 Report on the Global AIDS Epidemic. Data on contraceptive prevalence are from household surveys, including Demographic and Health Surveys by Macro International and Multiple Indicator Cluster Surveys by the United Nations Children's Fund (UNICEF). Data on deaths due to malaria are from the WHO. Data on insecticide-treated bednet use are from UNICEF's State of the World's Children 2006 and Childinfo, and Demographic and Health Surveys by Macro International. Data on tuberculosis are from the WHO's Global Tuberculosis Control Report 2006.

TABLE 3.7. MILLENNIUM DEVELOPMENT GOAL 7: ENSURE ENVIRONMENT SUSTAINABILITY

*Forest area* is land under natural or planted stands of trees, whether productive or not.

*Nationally protected areas* are totally or partially protected areas of at least 1,000 hectares that are designated as scientific reserves with limited public access, national parks, natural monuments, nature reserves or wildlife sanctuaries, and protected landscapes. Marine areas, unclassified areas, and littoral (intertidal) areas are not included. The data also do not include sites protected under local or provincial law.

*Gross domestic product (GDP) per unit of energy use* is the GDP in purchasing power parity (PPP) U.S. dollars per kilogram of oil equivalent of energy use. PPP GDP is gross domestic product converted to 2000 constant international dollars using purchasing power parity rates. An international dollar has the same purchasing power over GDP as a U.S. dollar has in the United States.

*Carbon dioxide emissions* are those stemming from the burning of fossil fuels and the manufacture of cement. They include carbon dioxide produced during consumption of solid, liquid, and gas fuels and gas flaring.

*Solid fuel use* is the percentage of the population using solid fuels as opposed to modern fuels. Solid fuels are defined to include fuel wood, straw, dung, coal, and charcoal. Modern fuels are defined to include electricity, liquefied petroleum gas, natural gas, kerosene, and gasoline.

*Population with sustainable access to an improved water source* is the percentage of the population with reasonable access to an adequate amount of water from an improved source, such as a household connection, public standpipe, borehole, protected well or spring, or rainwater collection. Unimproved sources include vendors, tanker trucks, and unprotected wells and springs. Reasonable access is defined as the availability of at least 20 liters a person a day from a source within 1 kilometer of the dwelling.

*Population with sustainable access to improved sanitation* is the percentage of the population with at least adequate access to excreta disposal facilities that can effectively prevent human, animal, and insect contact with excreta. Improved facilities range from simple but protected pit latrines to flush toilets with a sewerage connection. The excreta disposal system is considered adequate if it is private or shared (but not public) and if it hygienically separates human excreta from human contact. To be effective, facilities must be correctly constructed and properly maintained.

*Source:* Data on forest area are from the Food and Agricultural Organization's Global Forest Resources Assessment. Data on nationally protected areas are from the United Nations Environment Programme and the World Conservation Monitoring Centre.

Data on energy use are from electronic files of the International Energy Agency. Data on carbon dioxide emissions are from the Carbon Dioxide Information Analysis Center, Environmental Sciences Division, Oak Ridge National Laboratory, in the U.S. state of Tennessee. Data on solid fuel use are from household survey data, supplemented by World Bank estimates. Data on access to water and sanitation are from the World Health Organization and United Nations Children's Fund's Meeting the MDG Drinking Water and Sanitation Target ([www.unicef.org/wes/mdgreport](http://www.unicef.org/wes/mdgreport)).

TABLE 3.8. MILLENNIUM DEVELOPMENT GOAL 8: DEVELOP A GLOBAL PARTNERSHIP FOR DEVELOPMENT

*Heavily Indebted Poor Countries (HIPC) Debt Initiative decision point* is the date at which a HIPC with an established track record of good performance under adjustment programs supported by the International Monetary Fund (IMF) and the World Bank commits to undertake additional reforms and to develop and implement a poverty reduction strategy.

*HIPC completion point* is the date at which the country successfully completes the key structural reforms agreed on at the decision point, including developing and implementing its poverty reduction strategy. The country then receives the bulk of debt relief under the HIPC Initiative without further policy conditions.

*Debt service relief committed* is the amount of debt service relief, calculated at the Enhanced HIPC Initiative decision point, that will allow the country to achieve debt sustainability at the completion point.

*Public and publicly guaranteed debt service* is the sum of principal repayments and interest actually paid on total long-term debt (public and publicly guaranteed and private non-guaranteed), use of IMF credit, and interest on short-term debt.

*Youth unemployment rate* is the percentage of the labor force ages 15–24 without work but available for and seeking employment. Definitions of labor force and unemployment may differ by country.

*Fixed-line and mobile telephone subscribers* are subscribers to a fixed-line telephone service, which connects a customer's equipment

to the public switched telephone network, or to a public mobile telephone service, which uses cellular technology.

*Personal computers* are self-contained computers designed for use by a single individual.

*Internet users* are people with access to the worldwide network.

*Source:* Data on HIPC countries are from the IMF's March 2006 "HIPC Status Reports." Data on external debt are mainly from reports to the World Bank through its Debtor Reporting System from member countries that have received International Bank for Reconstruction and Development loans or International Development Association credits, as well as World Bank and IMF files. Data on youth unemployment are from the International Labour Organization's Key Indicators of the Labour Market, fourth edition. Data on phone subscribers, personal computers, and Internet users are from the International Telecommunication Union's (ITU) World Telecommunication Development Report database and World Bank estimates.

#### 4. Paris Declaration indicators

TABLE 4.1. STATUS OF PARIS DECLARATION INDICATORS

*The Paris Declaration* is the outcome of the 2005 Paris High-Level Forum on Aid Effectiveness. In the Declaration 60 partner countries, 30 donor countries, and 30 development agencies committed to specific actions to further country ownership, harmonization, alignment, managing for development results, and mutual accountability for the use of aid. Participants agreed on 12 indicators of aid effectiveness. These indicators include good national development strategies, reliable country systems for procurement and public financial management, the development and use of results frameworks, and mutual assessment of progress. Qualitative desk reviews by the Organisation for Economic Co-operation and Development's Development Assistance Committee and the World Bank and a survey questionnaire for governments and donors are used to calculate the indicators. Table 4.1 includes five of these indicators.

*Operational development strategies* measure the extent to which a country has an

operational development strategy to guide the aid coordination effort and the country's overall development. The score is based on the World Bank's 2005 Comprehensive Development Framework Progress Report. An operational strategy calls for a coherent long-term vision and a medium-term strategy derived from it; specific targets serving a holistic, balanced and well sequenced development strategy; and capacity and resources for its implementation.

*Reliable public financial management* is the World Bank's annual Country Policy and Institutional Assessment rating for the quality of public financial management. Measured on a scale of 1 (worst) to 5 (best), its focus is on how much existing systems adhere to broadly accepted good practices and whether a reform program is in place to promote improved practices.

*Avoidance of parallel project implementation units (PIUs)* is the number of parallel project implementation units. "Parallel" indicates that the units were created outside existing country institutional structures. The survey guidance distinguishes between PIUs and executing agencies and describes three typical features of parallel PIUs: they are accountable to external funding agencies rather than to country implementing agencies (ministries, departments, agencies, and the like), most of the professional staff are appointed by the donor, and the personnel salaries often exceeds those of civil service personnel. Interpretation of the Paris Declaration survey question on this subject was controversial in a number of countries. It is unclear that within countries all donors applied the same criteria with the same degree of rigor or that across countries the same standards were used. In several cases the descriptive part of the survey results indicates that some donors applied a legalistic criterion of accountability to the formal executing agency, whereas the national coordinator and other donors would have preferred greater recognition of the substantive reality of accountability to the donor. Some respondents may have confused the definitional question ("Is the unit 'parallel?") with the aid management question ("Is the parallelism justified in terms of the developmental benefits and costs?").

*Monitorable performance assessment frameworks* measure the extent to which a country's

commitment to establishing performance frameworks has been realized. The indicator relies on the scorings of the 2005 Comprehensive Development Framework Progress Report and considers three criteria: the quality of development information, stakeholder access to development information, and coordinated country-level monitoring and evaluation. The assessments therefore reflect both the extent to which sound data on development outputs, outcomes, and impacts are collected, and various aspects of the way information is used, disseminated among stakeholders, and fed back into policy.

*Mutual accountability* indicates whether there is a mechanism for mutual review of progress on aid effectiveness commitments. This is an important innovation of the Paris Declaration because it develops the idea that aid is more effective when both donors and partner governments are accountable to their constituents for the use of resources to achieve development results and when they are accountable to each other. The specific focus is mutual accountability for the implementation of the partnership commitments included in the Paris Declaration and any local agreements on enhancing aid effectiveness.

*Source:* Overview of the Results 2006 Survey on Monitoring the Paris Declaration and World Bank data.

## 5. Private sector development

TABLE 5.1. BUSINESS ENVIRONMENT

*Number of startup procedures to register a business* is the number of procedures required to start a business, including interactions to obtain necessary permits and licenses and to complete all inscriptions, verifications, and notifications to start operations.

*Time to start a business* is the number of calendar days needed to complete the procedures to legally operate a business. If a procedure can be speeded up at additional cost, the fastest procedure, independent of cost, is chosen.

*Cost to start a business* is normalized by presenting it as a percentage of gross national income (GNI) per capita.

*Number of procedures to register property* is the number of procedures required for a business to secure rights to property.

*Time to register property* is the number of calendar days needed for a business to secure rights to property.

*Number of procedures to enforce a contract* is the number of independent actions, mandated by law or courts, that demand interaction between the parties of a contract or between them and the judge or court officer.

*Time to enforce a contract* is the number of calendar days from the filing of the lawsuit in court until the final determination and, in appropriate cases, payment.

*Protecting investors disclosure index* measures the degree to which investors are protected through disclosure of ownership and financial information.

*Time to resolve insolvency* is the number of years from the filing for insolvency in court until the resolution of distressed assets.

*Rigidity of employment index* measures the regulation of employment, specifically the hiring and firing of workers and the rigidity of working hours. This index is the average of three subindexes: a difficulty of hiring index, a rigidity of hours index, and a difficulty of firing index.

*Source:* Data are from the World Bank's Doing Business project (<http://ruru.worldbank.org/DoingBusiness/>).

#### TABLE 5.2. INVESTMENT CLIMATE

*Private investment* is private sector fixed capital formation (table 2.21) divided by nominal gross domestic product (table 2.1).

*Net foreign direct investment* is investment by residents of the Organisation for Economic Co-operation and Development's (OECD) Development Assistance Committee (DAC) member countries to acquire a lasting management interest (at least 10 percent of voting stock) in an enterprise operating in the recipient country. The data reflect changes in the net worth of subsidiaries in recipient countries whose parent company is in the DAC source country. See box 5 for a discussion of the availability and accuracy of statistics on foreign direct investment.

*Domestic credit to private sector* is financial resources provided to the private sector, such as through loans, purchases of nonequity securities, and trade credits and other accounts receivable, that establish a claim for

repayment. For some countries these claims include credit to public enterprises.

*Policy uncertainty* is the share of senior managers who ranked economic and regulatory policy uncertainty as a major or very severe constraint. See box 6 for a discussion of how good policies matter more for the business climate than natural resources or geography, a finding of *Africa Competitiveness Report 2007*.

*Corruption* is the share of senior managers who ranked corruption as a major or very severe constraint.

*Courts* are the share of senior managers who ranked courts and dispute resolution systems as a major or very severe constraint.

*Lack of confidence in courts to uphold property rights* is the share of senior managers who do not agree with the statement: "I am confident that the judicial system will enforce my contractual and property rights in business disputes."

*Crime* is the share of senior managers who ranked crime, theft, and disorder as a major or very severe constraint.

*Tax rates* are the share of senior managers who ranked tax rates as a major or very severe constraint.

*Finance* is the share of senior managers who ranked access to finance or cost of finance as a major or very severe constraint.

*Electricity* is the share of senior managers who ranked electricity as a major or severe constraint.

*Labor regulation* is the share of senior managers who ranked labor regulations as a major or severe constraint.

*Labor skills* are the share of senior managers who ranked skills of available workers as a major or severe constraint.

*Number of tax payments* is the number of taxes paid by businesses, including electronic filing. The tax is counted as paid once a year even if payments are more frequent.

*Time to prepare, file, and pay taxes* is the number of hours it takes to prepare, file, and pay (or withhold) three major types of taxes: the corporate income tax, the value added or sales tax, and labor taxes, including payroll taxes and social security contributions.

*Total tax payable* is the total amount of taxes payable by the business (except for labor taxes) after accounting for deductions and exemptions as a percentage of profit. For further details on the method used for assessing the total tax payable.

With foreign direct investment (FDI) flows to African countries becoming an important source of foreign capital and technologies, reliable and accurate statistics are crucial for sound FDI policies. Despite major achievements around the world in gathering FDI data, the availability and quality of FDI data remain an issue in developing countries, including African countries.

The main source of data for estimating aggregate levels of FDI for most countries are central bank foreign exchange records, which are collected as part of balance of payments data. FDI statistics based on balance of payments data are becoming increasingly standardized as the International Monetary Fund's *Balance of Payments Manual* and the Organisation for Economic Co-operation and Development's *Benchmark Definition of Foreign Direct Investment* are used as the main sources.

However, balance of payments data often fail to capture foreign residents' investment activities that do not involve direct cross-border capital transactions—for example, reinvested earnings, where investment in a company is based on its own profits made from past investments in the same host country. Other examples are equity in the form of machinery (investment in kind) and intracompany debt.

More countries—but not all—have begun incorporating these elements of FDI. Only a few countries in Africa do. According to a recent survey by the United Nations Conference on Trade and Development (UNCTAD 2005), only Botswana and Nigeria report all these elements, and South Africa and Tunisia report reinvested earnings.

Failure to include these elements has resulted in discrepancies in FDI data. For example, in theory total worldwide FDI inflows should equal total worldwide FDI outflows. But a significant discrepancy between them exists because of the omission of these components (see figure).

Another source of FDI data is government administrative records, such as approval data of investment projects by foreign companies. The advantage of this source is that it incorporates sectoral and geographical information (origins and destinations) of foreign investments, which is useful information for microeconomic analysis of implications of FDI in countries' economic and industrial growth.

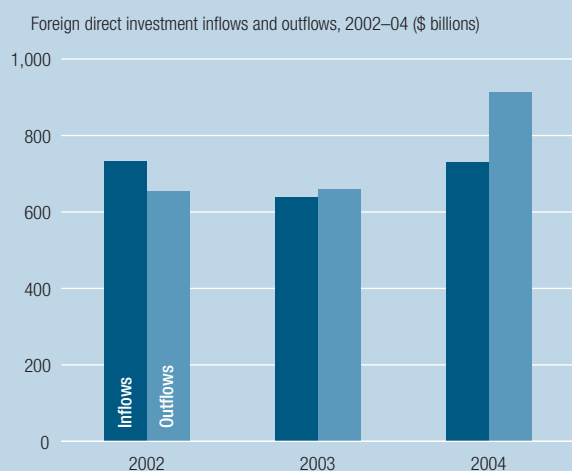
But only a few countries publish sectoral and geographical distributions of their FDI inflows and outflows. Availability of such data in African countries is particularly limited; only five countries report their FDI inflows by origin, and only three report inflows by sector (UNCTAD 2005). Availability of cross-sectional information of sectoral and geographical distributions of FDI flows is limited mostly to developed countries.

*Highest marginal tax rate, corporate*, is the highest rate shown on the schedule of tax rates applied to the taxable income of corporations.

*Time dealing with officials* is the average percentage of senior management's time that is

spent in a typical week dealing with requirements imposed by government regulations (for example, taxes, customs, labor regulations, licensing, and registration), including dealings with officials, completing forms, and the like.

### World foreign direct investment



Source: World Bank World Development Indicators database.

Another problem with the administrative source-based estimation is that many countries lack the details required to match international standards, which leads to inconsistency across countries in compiling FDI data. Also, administrative source-based FDI data often have some flaws in valuing investment projects due to the time gap between project approval and actual investment activity.

Some countries have implemented firm-level investor surveys, such as censuses, to supplement their balance of payments—and administrative data-based FDI statistics and improve the overall quality of their FDI statistics. These surveys can collect data on reinvested earnings and depreciation of FDI stocks. The downside of this approach, however, is the extreme difficulty in tracking all firms that conduct FDI transactions. The process is also so costly that only a handful of countries have implemented them.

Many countries in Africa lack sufficient human and institutional capacity to address the availability and quality of FDI data. Capacity building at the national level is very much needed in FDI statistics. Collaboration among agencies—the ministry of finance, ministry of commerce, ministry of industries, central banks, fiscal and tax authorities, and investment promotion agencies—is also important.

Source: IMF 2003; UNCTAD 2005.

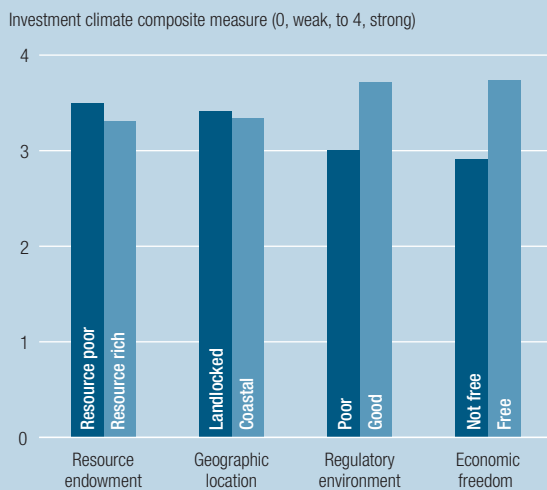
The first message of *Africa Competitiveness Report 2007* (World Economic Forum 2007) is that good policies matter more for the investment climate than resource abundance or sea access. By combining different variables representative of the business climate into one composite indicator, the report shows that resource-endowed countries have a similar quality of business climate as resource-scarce countries. So do landlocked countries and countries with sea access. For improving the investment climate, geography and geology count less than good policies (figure 1).

The World Bank’s Enterprise Survey questionnaire asks respondents to rank a list of issues based on how constraining they are to the operations and growth of their business. Although substantial country variation exists, access to finance, infrastructure, institutions, and skills are the constraints most often reported as “major” or “very severe” by entrepreneurs, both male and female, across Africa (figure 2).

Half of respondents report access to finance as a top constraint. Across countries access to finance appears more acute in resource rich countries and low-income countries. Within countries access to finance is problematic for small firms and locally owned enterprises. In addition, expanding firms are 10 percent more likely to report access to finance as a major constraint. Performance indicators show that better access to finance is associated with both higher productivity and employment growth.

Infrastructure remains one of the tightest bottlenecks to businesses in Africa. In low-income countries electricity is the top reported constraint. Moreover, unreliable power supply is a constraint that affects all firms, regardless of size. Transportation, by contrast, affects landlocked countries and small and medium-size firms more. Firms in Africa report losing as much as 8 percent of sales due to power outages and 3 percent due to transportation

**Figure 1 Differences in overall investment climate measure, by country grouping, various years**

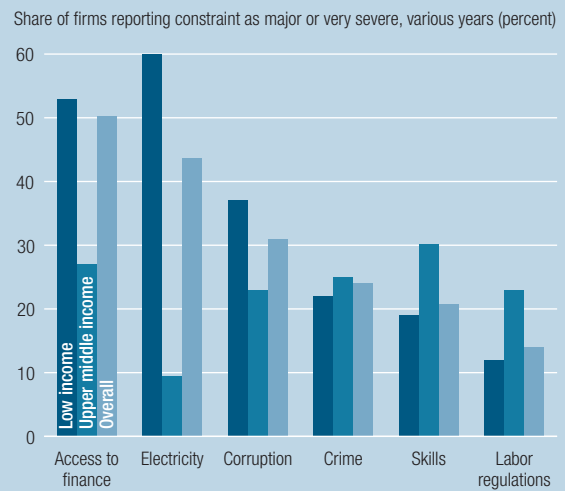


Source: World Economic Forum 2007.

delays. Improvements in infrastructure would have a substantial impact on firm competitiveness, increasing total factor productivity by 5 percent and employment by 7 percent.

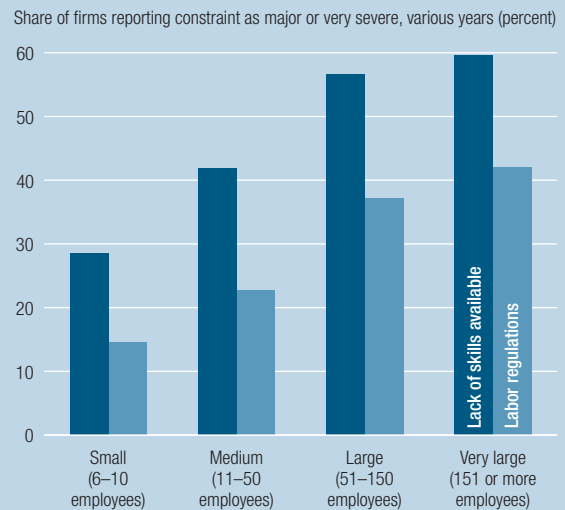
Quality of public institutions comprises law and order, corruption, court efficiency, and quality in the provision of public services. Across African countries corruption in particular remains a serious obstacle—viewed as one of the top five overall constraints among business owners, irrespective of gender and firm size. Performance indicators show that a 10 percent improvement in the

**Figure 2 Top constraints to business operations growth in Africa**



Source: World Economic Forum 2007.

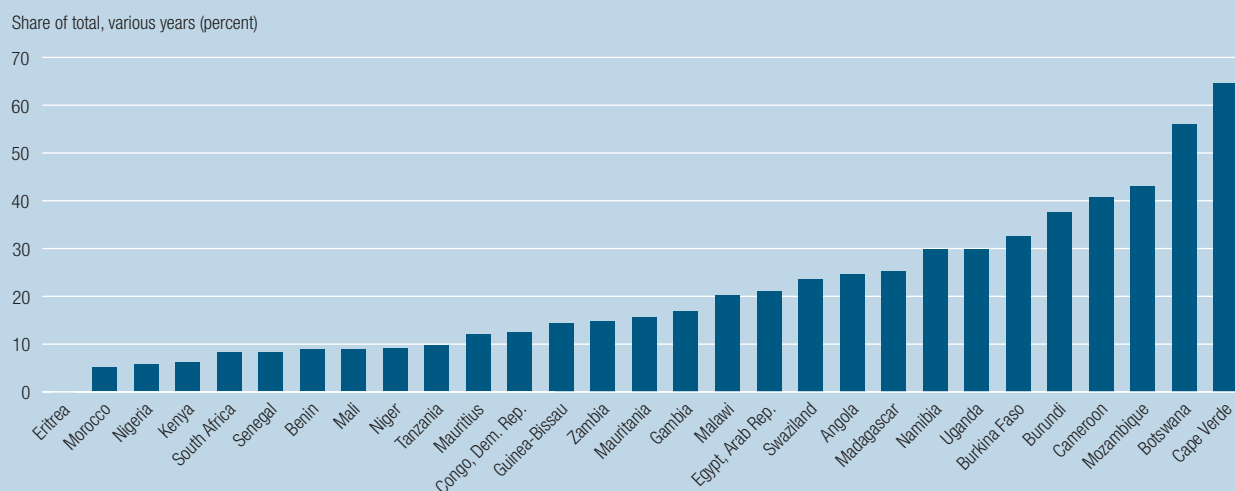
**Figure 3 Skills and labor regulation constraints, by size of firm**



Source: World Economic Forum 2007.

(continued)

Figure 4 Enterprises owned by women in select African countries



objective measure of corruption and regulation is associated with about a 2 percent increase in productivity.

Lack of skills remains a critical problem in Africa. Large firms are almost 60 percent more likely to report skills availability and labor regulations as constraining factors (figure 3). With larger workforces and more stringent hiring and firing requirements, this is not surprising. Increasing the supply of skilled workers has shown a positive impact on employment growth. A 10 percent improvement in the objective measure of the supply of skilled workers will increase employment by 1 percent.

The report identifies increased entrepreneurial participation of women as Africa's hidden growth potential. Albeit with large variation across countries, female entrepreneurs in Africa remain a minority compared with their male counterparts in most African countries (figure 4). The report suggests that there is no clear gender-distinct pattern of constraints faced by firms across Africa. But female entrepreneurs tend to be younger, less likely to be married, and more likely to be engaged in family enterprises.

The report concludes that once a firm is in business, enterprises managed by women are as productive as those run by men, based on productivity indicators such as value added per worker and total factor productivity (figure 5). This finding highlights the considerable hidden growth potential of women-owned enterprises once entry barriers to women's entrepreneurial participation are removed.

The report also compares Africa's four largest economies, Algeria, Egypt, Nigeria, and South Africa, with Brazil, China, India, and Russia., four of the largest developing and transition economies. It argues that the four African economies together have the size and scale to become drivers of Africa's economic growth. But key obstacles to competitiveness in their investment climates and very low intra-African trade hinder their capacities to act as effective growth poles (figure 6).

Finally, the report highlights the critical importance of information and communication technologies for boosting efficiency, boosting skill, and technology levels and moving into higher value products. It recognizes African governments' shifting role in information and communication technologies from owning and operating to promoting competitiveness by establishing a sound policy framework and stable institutions—particularly in the mobile telephone market. This has substantially transformed the structure of the mobile telephone market in Africa over the last decade (figure 7).

These efforts have resulted in strong growth in African markets—particularly in mobile telephone technologies (figure 8).

Figure 5 Performance of men- and women-owned enterprises

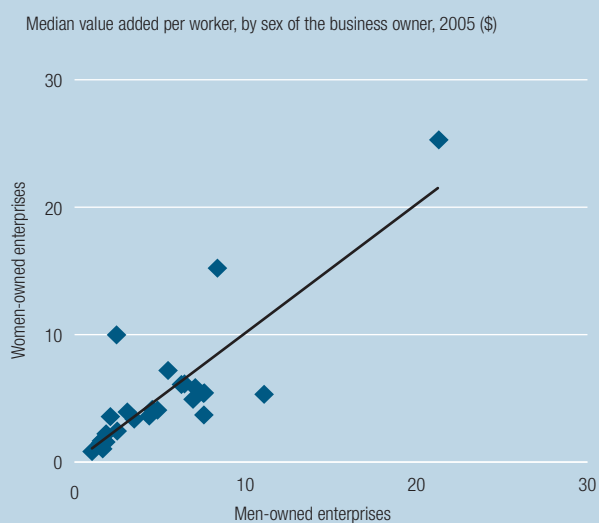
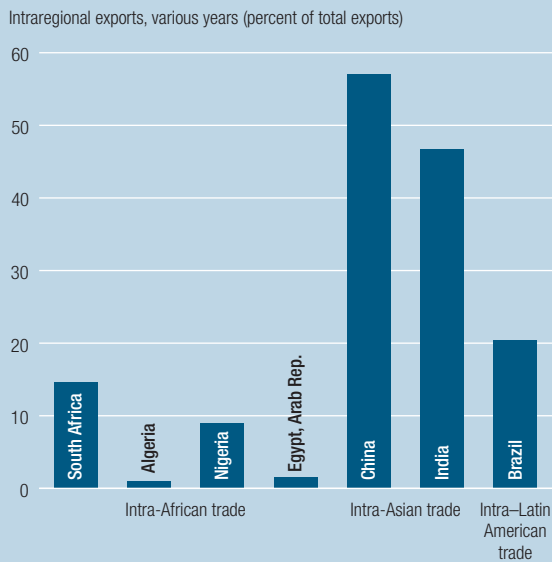


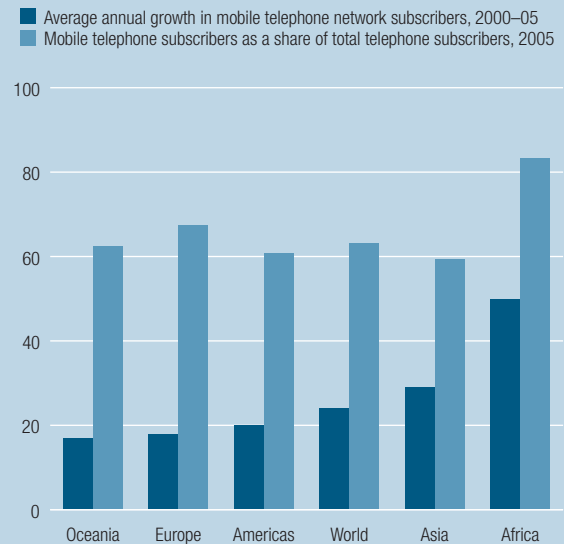


Figure 6 Intra-regional trade patterns



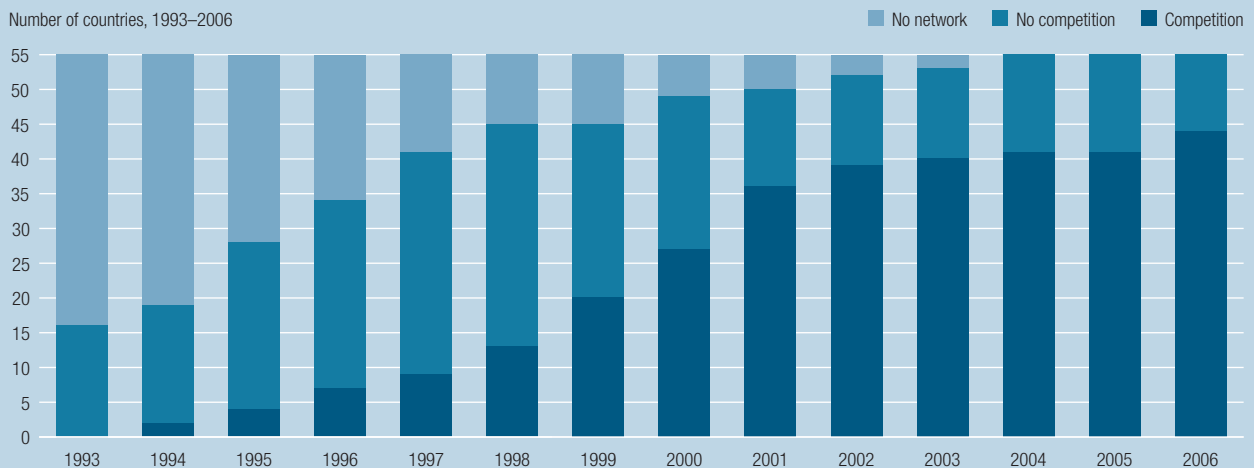
Source: World Economic Forum 2007.

Figure 8 Mobile telephone markets



Source: World Economic Forum 2007.

Figure 7 Structure of the mobile telephone market in Africa



Source: World Economic Forum 2007.

*Average time to clear customs* is the number of days to clear an imported good through customs.

*Bank branches* are deposit money bank branches.

*Interest rate spread* is the interest rate charged by banks on loans to prime customers minus the interest rate paid by commercial or similar banks for demand, time, or savings deposits.

*Listed domestic companies* are domestically incorporated companies listed on a country's stock exchanges at the end of the year. They exclude investment companies, mutual funds, and other collective investment vehicles.

*Market capitalization of listed companies*, also known as market value, is the share price of a listed domestic company's stock times the number of shares outstanding.

*Turnover ratio for traded stocks* is the total value of shares traded during the period divided by the average market capitalization for the period. Average market capitalization is calculated as the average of the end-of-period values for the current period and the previous period.

*Source:* Data on private investment are from the World Bank's World Development Indicators database. Data on net foreign direct investment are from the World Bank's World Development Indicators database. Data on domestic credit to the private sector are from the International Monetary Fund's International Financial Statistics database and data files, World Bank and OECD gross domestic product (GDP) estimates, and the World Bank's World Development Indicators database. Data on investment climate constraints to firms are based on enterprise surveys conducted by the World Bank and its partners during 2001–05 (<http://rru.worldbank.org/EnterpriseSurveys>). Data on regulation and tax administration and highest marginal corporate tax rates are from the World Bank's Doing Business project (<http://rru.worldbank.org/DoingBusiness>). Data on time dealing with officials and average time to clear customs are from World Bank Enterprise Surveys (<http://rru.worldbank.org/EnterpriseSurveys/>). Data on bank branches are from surveys of banking and regulatory institutions by the World Bank's Research Department and Financial Sector and Operations Policy Department and the World Development Indicators database. Data on interest rate spreads are from the IMF's International Financial Statistics database and data files and the World Bank's World Development Indicators database. Data on listed domestic companies and turnover ratios for traded stocks are from Standard & Poor's *Emerging Stock Markets Factbook* and supplemental data and the World Bank's World Development Indicators database. Data on market capitalization of listed companies are from Standard & Poor's *Emerging Stock Markets Factbook* and supplemental data, World Bank and OECD estimates of GDP, and the World Bank's World Development Indicators database.

## 6. Trade

TABLE 6.1. INTERNATIONAL TRADE AND TARIFF BARRIERS

*Merchandise trade* is the sum of imports and exports of divided by nominal gross domestic product.

*Exports* and *imports* comprise all transactions between residents of an economy and the rest of the world involving a change in ownership of general merchandise, goods sent for processing and repairs, and nonmonetary gold. Data are shown in current U.S. dollars. Exports and imports as a share of gross domestic product (GDP) are calculated as merchandise exports and imports divided by nominal GDP. Annual growth of exports and imports is calculated using the real imports and exports series in tables 2.25 and 2.26. See box 7 for a discussion of the importance of cross-border trade for Rwanda's exports and imports.

*Terms of trade index* measures the relative movement of export and import prices. This series is calculated as the ratio of a country's export unit values or prices to its import unit values or prices shows changes over a base year (2000) in the level of export unit values as a percentage of import unit values.

*Structure of merchandise exports* and *imports* components may not sum to 100 percent because of unclassified trade.

*Food* comprises the commodities in Standard International Trade Classification (SITC) sections 0 (food and live animals), 1 (beverages and tobacco), and 4 (animal and vegetable oils and fats) and SITC division 22 (oil seeds, oil nuts, and oil kernels).

*Agricultural raw materials* comprise the commodities in SITC section 2 (crude materials except fuels), excluding divisions 22, 27 (crude fertilizers and minerals excluding coal, petroleum, and precious stones), and 28 (metalliferous ores and scrap).

*Fuels* comprise SITC section 3 (mineral fuels).

*Ores and metals* comprise the commodities in SITC sections 27, 28, and 68 (nonferrous metals).

*Manufactures* comprise the commodities in SITC sections 5 (chemicals), 6 (basic manufactures), 7 (machinery and transport equipment), and 8 (miscellaneous manufactured goods), excluding division 68.

Cross-border trade in Rwanda—an important source of income for less well-off households—has been growing over the last decade (tables 1 and 2). Cross-border trade is trade between Rwanda and its immediate neighbors (Burundi, Democratic Republic of Congo, Tanzania, and Uganda). The income earned by a large number of small traders and family-operated ventures augments household income and agricultural production (through the provision of fertilizers and livestock feed), thereby helping reduce poverty. Cross-border activities also support regional food security.

Cross-border trade is also an important source of government revenue. Overall, the customs post at Gikongo, in Kigali, which clears 90–95 percent of imports, accounts for 90 percent of total customs duties. The airport custom post accounts for 7.5 percent of customs duties, and border customs posts account for 2.5 percent of customs duties.

Most cross-border trade in Rwanda takes place between Kigali and neighboring countries. According to a 2001/02 National Bank of Rwanda survey, these transactions account for about 99 percent of cross-border exchanges. Transactions between customs posts and neighboring countries account for the remaining 1 percent of cross-border transactions.

The main goods traded are agricultural commodities (maize, sugar, milk, rice, wheat, and flour), industrial goods (petroleum products, machinery, cement, shoes, plate, lamp, and pan), water resources (fish), forest resources (cassiterite), and services (mobile telephony, human skills, and banking activities). Rwanda also re-exports some goods, including secondhand clothes and fuel for

*Export diversification index* measures the extent to which exports are diversified. It is constructed as the inverse of a Herfindahl index, using disaggregated exports at four digits (following the SITC3). A higher index indicates more export diversification.

Competitiveness indicator has two aspects: sectoral effect and global competitiveness effect. To calculate both indicators, growth of exports is decomposed into three components: the growth rate of total international trade over the reference period (2001–05); the *sectoral effect*, which measures the contribution to a country's export growth of the dynamics of the sectoral markets in which the country sells its products, assuming that sectoral market shares are constant; and the *competitiveness effect*, which measures the contribution of changes in sectoral market shares to a country's export growth.

*Binding coverage* is the percentage of product lines with an agreed bound rate.

*Simple mean bound rate* is the unweighted average of all the lines in the tariff schedule in which bound rates have been set.

*Simple mean tariff* is the unweighted average of effectively applied rates or most favored nation rates for all products subject to tariffs calculated for all traded goods.

*Weighted mean tariff* is the average of effectively applied rates or most favored nation rates weighted by the product import shares corresponding to each partner country.

*Share of lines with international peaks* is the share of lines in the tariff schedule with tariff rates that exceed 15 percent.

*Share of lines with specific rates* is the share of lines in the tariff schedule that are set on a per unit basis or that combine ad valorem and per unit rates.

*Primary products* are commodities classified in SITC revision 2 sections 0–4 plus division 68.

*Manufactured products* are commodities classified in SITC revision 2 sections 5–8 excluding division 68.

**Table 1** Exports and imports and cross-border trade as a share of GDP, 2001–04 (percent)

Year	Exports of goods	Imports of goods	Cross-border trade <sup>a</sup>	
			Exports	Imports
2001	4.83	12.69	0.28	0.69
2002	3.18	11.03	0.46	0.98
2003	2.77	10.21	0.46	1.68
2004	4.41	11.62	0.58	2.06
Average, 2001–04	3.80	11.39	0.50	1.58

a. Value of included transactions exceeded 200,000 francs (\$370).

Source: World Bank 2007 and National Bank of Rwanda.

**Table 2** Growth rates of exports and imports as a share of GDP, 2001–04 (percent)

Exports of goods and services	Imports of goods and services	Cross-border trade <sup>a</sup>	
		Exports	Imports
4.04	–2.23	30.85	45.45

a. Value of included transactions exceeded 200,000 francs (\$370).

Source: World Bank 2007 and National Bank of Rwanda.

airplanes and vehicles to Burundi and the Democratic Republic of Congo.

Source: Coulibaly, Ezenenari, and Maburuki 2007.

*Tariff barriers* are a form of duty based on the value of the import.

*Average cost to ship 20 ft container from port to destination* is the cost of all operations associated with moving a container from on-board a ship to the considered economic center, weighted based on container traffic for each corridor.

*Average time to clear customs* is the number of days to clear an imported good through customs.

*Source:* All indicators in the table were calculated by World Bank staff using the World Integrated Trade Solution system. Data on the export diversification index and the competitiveness indicator are from the Organisation for Economic Co-operation and Development. Data on tariffs are from the United Nations Conference on Trade and Development and the World Trade Organization. Data on global imports are from the United Nations Statistics Division's COMTRADE database. Data on merchandise exports and imports are from World Bank country desks. Data on shipping costs are from the World Bank's Sub-Saharan Africa Transport Policy Program (SSATP). Data on average time to clear customs are from World Bank Enterprise Surveys (<http://rru.worldbank.org/EnterpriseSurveys/>).

TABLE 6.2 TOP THREE EXPORTS AND SHARE IN TOTAL EXPORTS, 2005

*Top exports* and *share of total exports* are based on exports disaggregated at the four-digit level (following the Standard International Trade Classification Revision 3).

*Number of exports accounting for 75 percent of total exports* is the number of exports in a country that account for 75 percent of the country's exports.

*Source:* All indicators in the table are from the Organisation for Economic Co-operation and Development.

TABLE 6.3 REGIONAL INTEGRATION, TRADE BLOCS

*Merchandise exports within bloc* are the sum of merchandise exports by members of a trade bloc to other members of the bloc. They are shown both in U.S. dollars and as a percentage of total merchandise exports by the bloc.

*Source:* Data on merchandise trade flows are published in the International Monetary Fund's (IMF) *Direction of Trade Statistics Yearbook* and *Direction of Trade Statistics Quarterly*. The data in the table were calculated using the IMF's Direction of Trade database. The United Nations Conference on Trade and Development publishes data on intraregional trade in its *Handbook of International Trade and Development Statistics*. The information on trade bloc membership is from World Bank (2000), the World Bank's *Global Economic Prospects 2005*, and the World Bank's International Trade Unit.

## 7. Infrastructure

TABLE 7.1. WATER AND SANITATION

*Internal fresh water resources per capita* is the sum of total renewable resources, which include internal flows of rivers and groundwater from rainfall in the country, and river flows from other countries.

*Population with sustainable access to an improved water source* is the percentage of population with reasonable access to an adequate amount of water from an improved source, such as a household connection, public standpipe, borehole, protected well or spring, or rainwater collection. Unimproved sources include vendors, tanker trucks, and unprotected wells and springs. Reasonable access is defined as the availability of at least 20 liters a person a day from a source within 1 kilometer of the user's dwelling.

*Population with sustainable access to improved sanitation* is the percentage of the population with at least adequate access to excreta disposal facilities that can effectively prevent human, animal, and insect contact with excreta. Improved facilities range from simple but protected pit latrines to flush toilets with a sewerage connection. The excreta disposal system is considered adequate if it is private or shared (but not public) and if it hygienically separates human excreta from human contact. To be effective, facilities must be correctly constructed and properly maintained.

*Water supply failure for firms receiving water* is the average number of days per year that firms experienced insufficient water supply for production.

*Committed nominal investment in water projects with private participation* is annual committed investment in water projects with private investment, including projects for potable water generation and distribution and sewerage collection and treatment projects.

*Average annual official development assistance (ODA) disbursements for water and sanitation* are average annual ODA for water and sanitation, including bilateral, multilateral, and other donors.

*Source:* Data on fresh water resources are from the World Bank's World Development Indicators database. Data on access to water and sanitation are from the World Health Organization and United Nations Children's Fund's Meeting the MDG Drinking Water and Sanitation Target ([www.unicef.org/wes/mdgreport](http://www.unicef.org/wes/mdgreport)). Data on water supply failure are from World Bank Investment Climate Surveys. Data on committed nominal investment in potable water projects with private participation are from the World Bank's Private Participation in Infrastructure database. Data on ODA disbursements are from the Organisation for Economic Co-operation and Development.

TABLE 7.2. TRANSPORTATION

*Road network* is the length of motorways, highways, main or national roads, secondary or regional roads, and other roads.

*Rail lines* are the length of railway route available for train service, irrespective of the number of parallel tracks.

*Road density, ratio to arable land* is the total length of national road network per 1,000 square kilometers of arable land area. The use of arable land area in the denominator focuses on inhabited sectors of total land area by excluding wilderness areas.

*Road density, ratio to total land* is the total length of national road network per 1,000 square kilometers of total land area.

*Rural access* is the percentage of the rural population who live within 2 kilometers of an all-season passable road as a share of the total rural population.

*Vehicle fleet* is motor vehicles, including cars, buses, and freight vehicles but not two-wheelers.

*Commercial vehicles* are the number of commercial vehicles that use at least 24 liters of diesel fuel per 100 kilometers.

*Passenger vehicles* are road motor vehicles, other than two-wheelers, intended for the carriage of passengers and designed to seat no more than nine people (including the driver).

*Road network in good or fair condition* is the length of the national road network, including the interurban classified network without the urban and rural network, that is in good or fair condition, as defined by each country's road agency.

*Ratio of paved to total roads* is the length of paved roads—which are those surfaced with crushed stone (macadam) and hydrocarbon binder or bituminized agents, with concrete, or with cobblestones—as a percentage of all the country's roads.

*Average time to ship 20 ft container from port to final destination* is the time in days from when the ship is available for unloading (be it moored at the berth or offshore) until the content of the container is made available to the final customer at the destination in the considered economic center, weighted based on container traffic for each corridor.

*Average cost to ship 20 ft container from port to final destination* is the costs of all operations associated with bringing a container from onboard a ship to the considered economic center, weighted based on container traffic for each corridor.

*Price of diesel fuel and super gasoline* is the price as posted at filling stations in a country's capital city. When several fuel prices for major cities were available, the unweighted average is used. Since super gasoline (95 octane/A95/premium) is not available everywhere, it is sometime replaced by regular gasoline (92 octane/A92), premium plus gasoline (98 octane/A98), or an average of the two.

*Committed nominal investment in transport projects with private participation* is annual committed investment in transport projects with private investment, including projects for airport runways and terminals, railways (including fixed assets, freight, intercity passenger, and local passenger), toll roads, bridges, and tunnels.

*Average annual official development assistance (ODA) disbursements for transportation and storage* are average annual ODA for transportation and storage, including bilateral, multilateral, and other donors.

*Source:* Data on length of road network and size of vehicle fleet are from the International Road Federation's *World Road Statistics*. Data on rail lines and ratio of paved to total roads are from the World Bank's World Development Indicators database. Data on road density and rural access to roads are from the World Bank's Sub-Saharan Africa Transport Policy Program (SSATP) and World Development Indicators database. Data on length of national network in good or fair condition and average time and costs are from the World Bank's SSATP. Data on fuel and gasoline prices are from the German Society for Technical Cooperation (GTZ). Data on committed nominal investment in transport projects with private participation are from the World Bank's Private Participation in Infrastructure database. Data on ODA disbursements are from the Organisation for Economic Co-operation and Development.

TABLE 7.3. INFORMATION AND COMMUNICATION TECHNOLOGY

*Telephone subscribers* are subscribers to a main telephone line service, which connects a customer's equipment to the public switched telephone network, or to a cellular telephone service, which uses cellular technology.

*Households with own telephone* is the percentage of households possessing a telephone.

*Average delay for firm in obtaining a telephone connection* is the average actual delay in days that firms experience when obtaining a telephone connection, measured from the day the establishment applied to the day it received the service or approval.

*Internet users* are people with access to the worldwide network.

*Duration of telephone outages* is the average duration in hours of instances of telephone unavailability related to production.

*Telephone faults* are the total number of reported faults for the year divided by the total number of mainlines in operation multiplied by 100. The definition of fault can vary. Some countries include faulty customer equipment; others distinguish between reported and actual found faults. There is also sometimes a distinction between residential and business lines. Another consideration is the time period: some countries report this indicator on a monthly basis; in these cases data are converted to yearly estimates.

*Price basket for Internet* is calculated based on the cheapest available tariff for accessing the Internet 20 hours a month (10 hours peak and 10 hours off-peak). The basket does not include telephone line rental but does include telephone usage charges if applicable. Data are compiled in the national currency and converted to U.S. dollars using the annual average exchange rate.

*Cost of 3 minute local phone call during peak hours* is the cost of a three-minute local call during peak hours. Local call refers to a call within the same exchange area using the subscriber's own terminal (that is, not from a public telephone).

*Cost of 3 minute cellular local call during off-peak hours* is the cost of a three-minute cellular local call during off-peak hours.

*Cost of 3 minute phone call to the United States (US) during peak hours* is the cost of a three-minute call to the United States during peak hours.

*Annual investment in telephone service* is the annual investment in equipment for fixed telephone service.

*Annual investment in mobile communication* is the capital investment on equipment for mobile communication networks.

*Annual investment in telecommunications* is the expenditure associated with acquiring the ownership of telecommunication equipment infrastructure (including supporting land and buildings and intellectual and non-tangible property such as computer software). It includes expenditure on initial installations and on additions to existing installations.

*Committed nominal investment in telecommunication projects with private participation* is annual committed investment in telecommunication projects with private investment, including projects for fixed or mobile local telephony, domestic long-distance telephony, and international long-distance telephony.

*Average annual official development assistance (ODA) disbursements for communications* are average annual ODA for communications, including bilateral, multilateral, and other donors.

*Source:* Data on telephone subscribers, reported phone faults, cost of local and cellular calls, and investment in telephone service, mobile communication, and telecommunications are from the International

Telecommunications Union. Data on households with own telephone are from Demographic and Health Surveys. Data on delays for firms in obtaining a telephone connection and duration of telephone outages, are from World Bank Investment Climate Assessments. Data on Internet users and pricing are from the International Telecommunication Union, *World Telecommunication Development Report* and database, and World Bank estimates. Data on cost of a call to the United States are from the World Bank's Global Development Finance and World Development Indicator databases. Data on committed nominal investment are from the World Bank's Private Participation in Infrastructure database. Data on ODA disbursements are from the Organisation for Economic Co-operation and Development.

TABLE 7.4. ENERGY

*Electric power consumption* is the production of power plants and combined heat and power plants, less distribution losses and own use by heat and power plants.

*GDP per unit of energy use* is nominal GDP in purchasing power parity (PPP) U.S. dollars divided by apparent consumption, which is equal to indigenous production plus imports and stock changes minus exports and fuels supplied to ships and aircraft engaged in international transport.

*Access to electricity* is the percentage of the population living in households with access to electricity.

*Solid fuels use* is the percentage of the population using solid fuels as opposed to modern fuels. Solid fuels include fuel wood, straw, dung, coal, and charcoal. Modern fuels include electricity, liquefied petroleum gas, natural gas, kerosene, and gasoline.

*Average delay for firm in obtaining electrical connection* is the average actual delay in days that firms experience when obtaining an electrical connection, measured from the day the establishment applied to the day it received the service or approval.

*Electric power transmission and distribution losses* are technical and nontechnical losses, including electricity losses due to operation of the system and the delivery of electricity as well as those caused by unmetered supply. This comprises all losses due to transport and distribution of electrical energy and heat.

*Electrical outages of firms* are the average number of days per year that establishments experienced power outages or surges from the public grid.

*Firms that share or own their own generator* is the percentage of firms that responded "Yes" to the following question: "Does your establishment own or share a generator?"

*Firms identifying electricity as major or very severe obstacle to business operation and growth* is the percentage of firms that responded "major" or "very severe" obstacle to the following question: "Please tell us if any of the following issues are a problem for the operation and growth of your business. If an issue (infrastructure, regulation, and permits) poses a problem, please judge its severity as an obstacle on a five-point scale that ranges from 0 = no obstacle to 5 = very severe obstacle."

*Committed nominal investment in energy projects with private participation* is annual committed investment in energy projects with private investment, including projects for electricity generation, transmission, and distribution as well as natural gas transmission and distribution.

*Average annual official development assistance (ODA) disbursements for energy* are average annual overseas ODA for energy, including bilateral, multilateral, and other donors).

*Source:* Data on electric power consumption and PPP GDP per unit of energy use are from the World Bank's World Development Indicators database. Data on access to electricity and solid fuels use are from household survey data, supplemented by World Bank Project Appraisal Documents. Data on delays for firms in obtaining an electrical connection, electrical outages of firms, firms that share or own their own generator, and firms identifying electricity as a major or very severe obstacle to business operation and growth are from World Bank Investment Climate Assessments. Data on transmission and distribution losses are from the World Bank's World Development Indicators database, supplemented by World Bank Project Appraisal Documents. Data on committed nominal investment are from the World Bank's Private Participation in Infrastructure database. Data on ODA disbursements are from the Organisation for Economic Co-operation and Development.

TABLE 7.5. FINANCIAL SECTOR INFRASTRUCTURE

*Sovereign ratings* are long- and short-term foreign currency ratings.

*Gross national savings* are the sum of gross domestic savings (table 2.12) and net factor income and net private transfers from abroad. The estimate here also includes net public transfers from abroad.

*Money and quasi money (M2)* are the sum of currency outside banks, demand deposits other than those of the central government, and the time, savings, and foreign currency deposits of resident sectors other than the central government. This definition of money supply is frequently called M2 and corresponds to lines 34 and 35 in the IMF's *International Financial Statistics*.

*Real interest rate* is the lending interest rate adjusted for inflation as measured by the gross domestic product (GDP) deflator.

*Domestic credit to private sector* is financial resources provided to the private sector, such as through loans, purchases of nonequity securities, and trade credits and other accounts receivable, that establish a claim for repayment. For some countries these claims include credit to public enterprises.

*Interest rate spread* is the interest rate charged by banks on loans to prime customers minus the interest rate paid by commercial or similar banks for demand, time, or savings deposits.

*Ratio of bank nonperforming loans to total gross loans* is the value of nonperforming loans divided by the total value of the loan portfolio (including nonperforming loans before the deduction of specific loan-loss provisions). The loan amount recorded as nonperforming should be the gross value of the loan as recorded on the balance sheet, not just the amount that is overdue.

*Bank branches* are deposit money bank branches. See box 8 for a discussion of informal finance.

*Listed domestic companies* are domestically incorporated companies listed on a country's stock exchanges at the end of the year. They exclude investment companies, mutual funds, and other collective investment vehicles.

*Market capitalization of listed companies*, also known as market value, is the share price of a listed domestic company's stock times the number of shares outstanding.

*Turnover ratio for traded stocks* is the total value of shares traded during the period divided by the average market capitalization for the period. Average market capitalization is calculated as the average of the end-of-period values for the current period and the previous period.

*Source:* Data on sovereign ratings are from Fitch Ratings. Data on gross national savings are from World Bank country desks. Data on money and quasi money and domestic credit to the private sector are from the IMF's International Financial Statistics database and data files, World Bank and OECD estimates of GDP, and the World Bank's World Development Indicators database. Data on real interest rates are from the IMF's International Financial Statistics database and data files using World Bank data on the GDP deflator and the World Bank's World Development Indicators database. Data on interest rate spreads are from the IMF's International Financial Statistics database and data files and the World Bank's World Development Indicators database. Data on ratios of bank nonperforming loans to total are from the IMF's *Global Financial Stability Report* and the World Bank's World Development Indicators database. Data on bank branches are from surveys of banking and regulatory institutions by the World Bank's Research Department and Financial Sector and Operations Policy Department and the World Development Indicators database. Data on listed domestic companies and turnover ratios for traded stocks are from Standard & Poor's *Emerging Stock Markets Factbook* and supplemental data and the World Bank's World Development Indicators database. Data on market capitalization of listed companies are from Standard & Poor's *Emerging Stock Markets Factbook* and supplemental data, World Bank and OECD estimates of GDP, and the World Bank's World Development Indicators database.

## 8. Human development

TABLE 8.1. EDUCATION

*Youth literacy rate* is the percentage of people ages 15–24 who can, with understanding, both read and write a short, simple statement about their everyday life.



Financial services such as payment, savings, credit, and insurance services are an important lubricant for a vibrant market-based economy. By facilitating the exchange of goods and services between people and over time, pooling savings and intermediating them to investment projects, and insuring people against shocks and allowing them to save for retirement, financial institutions and markets are important drivers of economic development. They are especially important in Africa's fight to reach the Millennium Development Goal target of halving poverty by 2015. While academics and policymakers are typically concerned with formal finance—with financial institutions and markets that are regulated and supervised by government authorities—a wide array of informal and semiformal institutions and markets also provide important services.

Informal finance is a broad concept, encompassing a wide variety of services and relationships ranging from loans from friends and family to informal savings and credit clubs to moneylenders. Informal does not necessarily mean illegal, but rather financial service provision outside the oversight of any government authority. This includes professional money lenders, credit linked to trade or rent agreements, deposit collectors (also known as *susu* or *esusu* collectors in West Africa), informal burial societies, *hawala* and other ethnically based international money transfer businesses, and a variety of savings and credit associations, including rotating credit and savings associations, *stokvels*, and *tontines*. Unlike most formal financial relationships, informal finance is based on personal relationships and socioeconomic proximity. Most providers focus on only one service—savings, credit, payment, or insurance rather than offering a bundle of services as many formal financial providers do. The relative importance of different informal financial providers varies across countries and regions.

The line between formal and informal finance, however, is not clear cut. A number of financial institutions could be described as semiformal, such as savings and credit cooperative societies or microcredit projects that have to register with public authorities, but are not subject to any regulation or supervision.

Informal finance is an important stage in the development process. In 19th century Western Europe informal financial arrangement flourished in a wide range of institutional forms. In France, for example, notaries were financial intermediaries for the nascent manufacturing and trade sectors (Cull and others 2006). But even today, unregistered (and therefore usually illegal) moneylenders continue to operate in deprived neighborhoods of even the richest economies. While precise data are missing, anecdotal evidence suggests that the importance of informal finance decreases as economies develop; the formal financial system becomes more efficient in reaching out and formal financial services become more affordable to larger shares of the population. Also, some informal

financial providers will become formal and thus subject to regulatory and supervisory frameworks.

### Collecting data

While aggregate data on formal financial institutions and markets are readily available, they are not for informal financial institutions. It is thus impossible to quantify the importance of informal compared with formal finance. Data on access to and use of formal financial services have only recently become available, and data on use of informal financial services are still limited to a few individual countries. But estimates suggest that in many Sub-Saharan countries less than 20 percent of the population have access to formal financial services, leaving some 80 percent of the population to use at least one informal financial service. While surveys of small formal enterprises indicate that less than 10 percent of working capital and new investment is financed with resources from informal lenders and friends and families, this share is likely higher for informal enterprises, though, there is significant overlap between the clientele of formal and informal financial service providers.

While household and firm-level surveys can give a good cross-sectional snapshot of how much of the population uses formal and informal financial services, financial diaries can document the financial life of low-income people over time (see, for example, [www.financialdiaries.com](http://www.financialdiaries.com)). In South Africa diaries have shown that low-income people use an average of 4 savings, 2 insurance, and 11 credit instruments and a mix of formal and informal providers. Diaries can also help explain the needs for financial services and advice to help policymakers and commercial financial institutions develop policies and products.

### Overcoming data challenges

An array of data collection efforts is needed to provide a better picture of who has access to and uses which financial services. While investment climate surveys have gone far as a consistent cross-country source of firm financing data, a similar instrument is still in development on the household side. Micro studies are time- and cost-intensive and typically cannot be undertaken frequently. But combining household- or firm-level data with aggregate data such as deposit or loan accounts can help track countries more frequently and allow cross-country comparisons.

While cross-country comparisons are important, country-specific details must be taken into account, including barriers that impede clients from accessing formal financial services. This is important for policymakers because formal financial services, able to reach out beyond limited sociogeographic areas, are generally more efficient. Also, little information is available on costs and interest rates in informal finance beyond the anecdotal evidence that moneylenders charge very high interest rates, while friends and family often charge no interest.

*Adult literacy rate* is the proportion of adults ages 15 and older who can, with understanding, read and write a short, simple statement on their everyday life.

*Primary education* provides children with basic reading, writing, and mathematics skills along with an elementary understanding of such subjects as history, geography, natural science, social science, art, and music.

*Secondary education* completes the provision of basic education that began at the primary level and aims to lay the foundations for lifelong learning and human development by offering more subject- or skill-oriented instruction using more specialized teachers.

*Tertiary education*, whether or not at an advanced research qualification, normally requires, as a minimum condition of admission, the successful completion of education at the secondary level.

*Gross enrollment ratio* is the ratio of total enrollment, regardless of age, to the population of the age group that officially corresponds to the level of education shown.

*Net enrollment ratio* is the ratio of children of official school age based on the International Standard Classification of Education 1997 who are enrolled in school to the population of the corresponding official school age.

*Student-teacher ratio* is the number of students enrolled in school divided by the number of teachers, regardless of their teaching assignment.

*Public spending on education* is current and capital public expenditure on education plus subsidies to private education at the primary, secondary, and tertiary levels by local, regional, and national government, including municipalities. It excludes household contributions.

*Source:* United Nations Educational, Scientific, and Cultural Organization Institute for Statistics.

#### TABLE 8.2. HEALTH

*Life expectancy at birth* is the number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth were to remain the same throughout its life. Data are World Bank estimates based on data from the United Nations Population Division, the

United Nations Statistics Division, and national statistical offices.

*Under-five mortality rate* is the probability that a newborn baby will die before reaching age 5, if subject to current age-specific mortality rates. The probability is expressed as a rate per 1,000.

*Infant mortality rate* is the number of infants dying before reaching one year of age, per 1,000 live births.

*Maternal mortality ratio, modeled estimate*, is the number of women who die from pregnancy-related causes during pregnancy and childbirth, per 100,000 live births.

*Prevalence of HIV* is the percentage of people ages 15–49 who are infected with HIV.

*Incidence of tuberculosis* is the number of tuberculosis cases (pulmonary, smear positive, and extrapulmonary) in a population at a given point in time, per 100,000 people. This indicator is sometimes referred to as “point prevalence.” Estimates include cases of tuberculosis among people with HIV.

*Deaths due to malaria* is the number of malaria deaths per 100,000 people.

*Child immunization rate* is the percentage of children ages 12–23 months who received vaccinations before 12 months or at any time before the survey for four diseases—measles and diphtheria, pertussis (whooping cough), and tetanus (DPT). A child is considered adequately immunized against measles after receiving one dose of vaccine and against DPT after receiving three doses.

*Stunting* is the percentage of children under age 5 whose height for age is more than two standard deviations below the median for the international reference population ages 0–59 months. For children up to two years of age height is measured by recumbent length. For older children height is measured by stature while standing. The reference population adopted by the World Health Organization in 1983 is based on children from the United States, who are assumed to be well nourished.

*Underweight* is the percentage of children under age 5 whose weight for age is more than two standard deviations below the median reference standard for their age as established by the World Health Organization, the U.S. Centers for Disease Control and Prevention, and the U.S. National Center for Health Statistics. Data are based on children under age 3, 4, or 5, depending on the country.

*Births attended by skilled health staff* are the percentage of deliveries attended by personnel trained to give the necessary supervision, care, and advice to women during pregnancy, labor, and the postpartum period; to conduct deliveries on their own; and to care for newborns.

*Contraceptive prevalence rate* is the percentage of women who are practicing, or whose sexual partners are practicing, any form of contraception. It is usually measured for married women ages 15–49 only.

*Children sleeping under insecticide-treated bednets* is the percentage of children under age 5 with access to an insecticide-treated bednet to prevent malaria.

*Tuberculosis cases detected under DOTS* are the percentage of estimated new infectious tuberculosis cases detected under DOTS, the internationally recommended tuberculosis control strategy.

*Tuberculosis treatment success rate* is the percentage of new smear-positive tuberculosis cases registered under DOTS in a given year that successfully completed treatment, whether with bacteriologic evidence of success (“cured”) or without (“treatment completed”).

*Children with fever receiving antimalarial drugs* are the percentage of children under age 5 in malaria-risk areas with fever being treated with effective antimalarial drugs.

*Population with sustainable access to an improved water source* is the percentage of the population with reasonable access to an adequate amount of water from an improved source, such as a household connection, public standpipe, borehole, protected well or spring, or rainwater collection. Unimproved sources include vendors, tanker trucks, and unprotected wells and springs. Reasonable access is defined as the availability of at least 20 liters a person a day from a source within 1 kilometer of the dwelling. See box 9 for a discussion of using Demographic and Health Surveys to measure access to infrastructure, including water and sanitation infrastructure.

*Population with sustainable access to improved sanitation* is the percentage of the population with at least adequate access to excreta disposal facilities that can effectively prevent human, animal, and insect contact with excreta. Improved facilities range from

simple but protected pit latrines to flush toilets with a sewerage connection. The excreta disposal system is considered adequate if it is private or shared (but not public) and if it hygienically separates human excreta from human contact. To be effective, facilities must be correctly constructed and properly maintained.

*Physicians* are the number of physicians, including generalists and specialists.

*Nurses* are the number of nurses, including professional nurses, auxiliary nurses, enrolled nurses, and other nurses, such as dental nurses and primary care nurses.

*Midwives* are the number of midwives, including professional midwives, auxiliary midwives, and enrolled midwives. Traditional birth attendants, who are counted as community health workers, are not included.

*Total health expenditure* is the sum of public and private health expenditure. It covers the provision of health services (preventive and curative), family planning activities, nutrition activities, and emergency aid designated for health but does not include provision of water and sanitation.

*Public health expenditure* consists of recurrent and capital spending from government (central and local) budgets, external borrowing and grants (including donations from international agencies and nongovernmental organizations), and social (or compulsory) health insurance funds.

*Private health expenditure* includes direct household (out-of-pocket) spending, private insurance, charitable donations, and direct service payments by private corporations.

*Out-of-pocket health expenditure* is any direct outlay by households, including gratuities and in-kind payments, to health practitioners and suppliers of pharmaceuticals, therapeutic appliances, and other goods and services whose primary intent is to contribute to the restoration or enhancement of the health status of individuals or population groups. It is a part of private health expenditure.

*Health expenditure per capita* is the total health expenditure is the sum of public and private health expenditures as a ratio of total population. It covers the provision of health services (preventive and curative), family planning activities, nutrition activities, and emergency aid designated for health but does

Household surveys have long been used to estimate poverty and inequality trends but not to the same extent to assess trends in access to infrastructure. A recent study in Africa used Demographic and Health Surveys from 22 countries that have conducted at least two surveys between 1990 and 2005 to collect comparable information across countries on access to water, electricity, and sanitation over time. To conduct a distributional analysis of access, an asset index was constructed using principal components analysis, and households were divided into five quintiles of population by their level of wealth or assets.

The difficulty in estimating the Africawide trend in access rates stems from the fact that the panel of countries or surveys is not balanced. Countries have observations for different years. So three alternative methods were used to estimate overall access trends. The first method includes only the 11 countries for which there are data for three time periods, 1990–95, 1996–2000, and 2001–05. The second method includes countries with data for only one or two time periods. For countries with data for only one time period the data are used for all three time periods, assuming no change over time in access. If data are available for two periods, the annual growth rate in coverage between the two periods is used to estimate the rate for the third period. The third method is similar but assumes that access rates cannot fall more than population growth. If access rates in the third period drop by more than what would be observed assuming no growth in the total number of connections, the survey data for the third period are replaced with the coverage rate in the second period times the ratio of the population in the second period divided by the population in the third period.

Issues of comparability between surveys in some countries and the need to correct for some outliers mean that the preferred estimates for this analysis are from the third method.

The results from all three methods suggest that access rates for electricity and a flush toilet have improved slightly over time but that rates for access to piped water have not (see table). Access rates within urban and rural areas have not changed much (except for countries with rural electrification projects), which suggests that migration from rural to urban areas has contributed to the higher access rates. Finally, the gains in access to electricity have been better shared across wealth groups (except for the very poor) than have the gains in access to flush toilets, which tend to have benefited the richest households the most. Among the poorest quintile access to all three basic infrastructure services remains virtually inexistent.

**Trends in access to basic infrastructure services in Africa, 1990–2005 (percent)**

Subgroup and method	Piped water			Electricity			Flush toilet		
	2001–05	2001–05	2001–05	2001–05	2001–05	2001–05	2001–05	2001–05	
<b>National</b>									
Method 1	12	13	10	19	29	34	7	8	10
Method 2	17	17	15	23	28	31	10	10	11
Method 3	17	17	16	23	28	29	10	10	12
<b>Urban</b>									
Method 1	38	34	25	67	72	72	26	27	26
Method 2	49	44	37	70	70	70	35	32	30
Method 3	49	44	40	70	70	70	35	32	30
<b>Rural</b>									
Method 1	4	4	4	5	13	16	1	2	3
Method 2	4	4	4	6	10	13	1	1	2
Method 3	4	4	4	6	10	13	1	1	2
<b>Poorest quintile</b>									
Method 1	0	0	0	0	1	5	0	0	0
Method 2	0	0	0	0	2	3	0	0	0
Method 3	0	0	0	0	2	3	0	0	0
<b>Second quintile</b>									
Method 1	1	2	1	2	8	19	0	0	1
Method 2	3	4	3	2	8	32	1	1	1
Method 3	3	4	4	2	8	32	1	1	1
<b>Third quintile</b>									
Method 1	3	3	4	6	20	22	2	1	2
Method 2	9	8	19	12	19	25	4	4	13
Method 3	9	8	20	12	19	25	4	4	13
<b>Fourth quintile</b>									
Method 1	14	12	13	24	41	45	7	5	7
Method 2	33	19	19	27	36	40	15	12	17
Method 3	33	19	20	27	36	40	15	12	17
<b>Richest quintile</b>									
Method 1	42	46	35	63	73	77	27	36	41
Method 2	47	48	42	65	69	71	31	34	36
Method 3	47	48	48	65	69	71	31	34	36

Source: Banerjee and others 2007.

not include provision of water and sanitation. Data are in current U.S. dollars.

Source: Data are from the latest Core Health Indicators from World Health Organization sources, including *World Health Statistics 2006* and *World Health Report 2006* ([http://](http://www3.who.int/whosis/core/core_select.cfm?path=whosis,core&language=english)

[www3.who.int/whosis/core/core\\_select.cfm?path=whosis,core&language=english](http://www3.who.int/whosis/core/core_select.cfm?path=whosis,core&language=english)). Data on health expenditure are from the World Health Organization's *World Health Report* and updates and from the Organisation for Economic Co-operation and Development for its member countries, supplemented by World

Bank poverty assessments and country and sector studies, and household surveys conducted by governments or by statistical or international organizations.

### 9. Agriculture, rural development, and environment

TABLE 9.1. RURAL DEVELOPMENT

*Rural population* is the difference between the total population and the urban population.

*Rural population density* is the rural population divided by the arable land area. Arable land includes land defined by the Food and Agriculture Organization (FAO) as land under temporary crops (double-cropped areas are counted once), temporary meadows for mowing or for pasture, land under market or kitchen gardens, and land temporarily fallow. Land abandoned as a result of shifting cultivation is excluded.

*Rural population below the national poverty line* is the percentage of the rural population living below the national poverty line.

*Share of rural population with sustainable access to an improved water source* is the percentage of the rural population with reasonable access to an adequate amount of water from an improved source, such as a household connection, public standpipe, borehole, protected well or spring, or rainwater collection. Unimproved sources include vendors, tanker trucks, and unprotected wells and springs. Reasonable access is defined as the availability of at least 20 liters a person a day from a source within 1 kilometer of the dwelling.

*Share of rural population with sustainable access to improved sanitation facilities* is the percentage of the rural population with at least adequate access to excreta disposal facilities that can effectively prevent human, animal, and insect contact with excreta. Improved facilities range from simple but protected pit latrines to flush toilets with a sewerage connection. The excreta disposal system is considered adequate if it is private or shared (but not public) and if it hygienically separates human excreta from human contact. To be effective, facilities must be correctly constructed and properly maintained.

*Share of rural population with access to electricity* is the percentage of the rural population living in households with access to electricity.

*Share of rural population with access to transportation* is the percentage of the rural population who live within 2 kilometers of an all-season passable road as a share of the total rural population.

*Share of rural households with access to a landline telephone* is the percentage of rural households possessing a telephone.

*Source:* Data on rural population are calculated from urban population shares from the United Nations Population Division's *World Urbanization Prospects* and from total population figures from the World Bank. Data on rural population density are from the FAO and World Bank population estimates. Data on rural population below the poverty line are national estimates based on population-weighted subgroup estimates from household surveys. Data on rural population with access to water and rural population with access to sanitation are from World Health Organization and United Nations Children's Fund's *Meeting the MDG Water and Sanitation Target* ([www.unicef.org/wes/mdgreport](http://www.unicef.org/wes/mdgreport)). Data on rural population with access to electricity are from household survey data, supplemented by World Bank Project Appraisal Documents. Data on rural population with access to transport are from the World Bank's Sub-Saharan Africa Transport Policy Program (SSATP). Data on rural households with own telephone are from Demographic and Health Surveys.

TABLE 9.2. AGRICULTURE

*Agriculture value added* is shown at factor cost in current U.S. dollars divided by nominal gross domestic product. Value added in agriculture comprises the gross output of forestry, hunting, and fishing less the value of their intermediate inputs. However, for Botswana, Cameroon, Chad, Democratic Republic of Congo, Republic of Congo, Gabon, Guinea, Madagascar, Mali, Morocco, Niger, Rwanda, Senegal, Togo, and Zambia, it is shown at market prices, that is, including intermediate inputs.

*Crop production index* shows agricultural production for each year relative to the base period 1999–2001. It includes all crops except fodder crops. Regional and income group aggregates for the Food and Agriculture Organization's (FAO) production indexes are

calculated from the underlying values in international dollars, normalized to the base period 1999–2001.

*Food production index* covers food crops that are considered edible and that contain nutrients. Coffee and tea are excluded because, although edible, they have no nutritive value.

*Livestock production index* includes meat and milk from all sources, dairy products such as cheese, and eggs, honey, raw silk, wool, and hides and skins.

*Cereal production* is crops harvested for dry grain only. Cereals include wheat, rice, maize, barley, oats, rye, millet, sorghum, buckwheat, and mixed grains. Cereal crops harvested for hay or harvested green for food, feed, or silage and those used for grazing are excluded.

*Agricultural exports and imports* are expressed in current U.S. dollars at free on board prices. The term agriculture in trade refers to both food and agriculture and does not include forestry and fishery products.

*Food exports and imports* are expressed in current U.S. dollars at free on board prices.

*Permanent cropland* is land cultivated with crops that occupy the land for long periods and need not be replanted after each harvest, such as cocoa, coffee, and rubber. It includes land under flowering shrubs, fruit trees, nut trees, and vines, but excludes land under trees grown for wood or timber.

*Cereal cropland* refers to harvested area, although some countries report only sown or cultivated area.

*Irrigated land* is areas equipped to provide water to the crops, including areas equipped for full and partial control irrigation, spate irrigation areas, and equipped wetland or inland valley bottoms.

*Fertilizer consumption* is the aggregate of nitrogenous, phosphate, and potash fertilizers.

*Agricultural machinery* refers to the number of wheel and crawler tractors (excluding garden tractors) in use in agriculture at the end of the calendar year specified or during the first quarter of the following year. Arable land includes land defined by the FAO as land under temporary crops (double-cropped areas are counted once), temporary meadows for mowing or for pasture, land under market or kitchen gardens, and land temporarily fallow. Land abandoned as a result of shifting cultivation is excluded.

*Agricultural employment* includes people who work for a public or private employer and who receive remuneration in wages, salary, commission, tips, piece rates, or pay in kind. Agriculture corresponds to division 1 (International Standard Industrial Classification, ISIC, revision 2) or tabulation categories A and B (ISIC revision 3) and includes hunting, forestry, and fishing.

*Incidence of drought* shows whether a country experienced a significant shortage of rain that unfavorably affected agricultural production.

Agriculture value added per worker is the output of the agricultural sector (ISIC divisions 1–5) less the value of intermediate inputs. Agriculture comprises value added from forestry, hunting, and fishing as well as cultivation of crops and livestock production. Data are in constant 2000 U.S. dollars.

*Cereal yield* includes wheat, rice, maize, barley, oats, rye, millet, sorghum, buckwheat, and mixed grains. Production data on cereals relate to crops harvested for dry grain only. Cereal crops harvested for hay or harvested green for food, feed, or silage and those used for grazing are excluded.

*Source:* Data on agriculture value added are from World Bank country desks. Data on crop, food, livestock, and cereal production, agricultural exports and imports, permanent cropland, cereal cropland, and agricultural machinery are from the FAO. Data on irrigated land are from the FAO's *Production Yearbook* and data files. Data on fertilizer consumption are from the FAO database for the *Fertilizer Yearbook*. Data on agricultural employment are from the International Labour Organization. Data on incidence of drought are from the Southern Africa Flood and Drought Network and East Africa Drought (CE). Data on agriculture value added per worker are from World Bank national accounts files and the FAO's *Production Yearbook* and data files.

#### TABLE 9.3. ENVIRONMENT

*Forest area* is land under natural or planted stands of trees, whether productive or not.

*Average annual deforestation* refers to the permanent conversion of natural forest area to other uses, including shifting cultivation, permanent agriculture, ranching, settlements, and infrastructure development. Deforested

areas do not include areas logged but intended for regeneration or areas degraded by fuelwood gathering, acid precipitation, or forest fires. Negative numbers indicate an increase in forest area.

*Renewable internal fresh water resources* refer to internal renewable resources (internal river flows and groundwater from rainfall) in the country.

*Annual fresh water withdrawals* refer to total water withdrawals, not counting evaporation losses from storage basins. Withdrawals also include water from desalination plants in countries where they are a significant source. Withdrawals can exceed 100 percent of total renewable resources where extraction from nonrenewable aquifers or desalination plants is considerable or where there is significant water reuse. Withdrawals for agriculture and industry are total withdrawals for irrigation and livestock production and for direct industrial use (including withdrawals for cooling thermoelectric plants). Withdrawals for domestic uses include drinking water, municipal use or supply, and use for public services, commercial establishments, and homes.

*Water productivity* is calculated as gross domestic product in constant prices divided by annual total water withdrawal. Sectoral water productivity is calculated as annual value added in agriculture or industry divided by water withdrawal in each sector.

*Emissions of organic water pollutants* are measured in terms of biochemical oxygen demand, which refers to the amount of oxygen that bacteria in water will consume in breaking down waste. This is a standard water-treatment test for the presence of organic pollutants.

*Energy production* refers to forms of primary energy—petroleum (crude oil, natural gas liquids, and oil from nonconventional sources), natural gas, solid fuels (coal, lignite, and other derived fuels), and combustible renewables and waste—and primary electricity, all converted into oil equivalents.

*Energy use* refers to use of primary energy before transformation to other end-use fuels, which is equal to indigenous production plus imports and stock changes, minus exports and fuels supplied to ships and aircraft engaged in international transport.

*Combustible renewables and waste* comprise solid biomass, liquid biomass, biogas,

industrial waste, and municipal waste, measured as a percentage of total energy use.

*Carbon dioxide emissions* are those stemming from the burning of fossil fuels and the manufacture of cement. They include carbon dioxide produced during consumption of solid, liquid, and gas fuels and gas flaring.

*Source:* Data on forest area and deforestation are from the Food and Agriculture Organization's (FAO) Global Forest Resources Assessment 2005. Data on fresh water resources and withdrawals are from the World Resources Institute, supplemented by the FAO's AQUASTAT data. Data on emissions of organic water pollutants are from the World Bank. Data on energy production and use and combustible renewables and waste are from the International Energy Agency. Data on carbon dioxide emissions are from Carbon Dioxide Information Analysis Center, Environmental Sciences Division, Oak Ridge National Laboratory, in the U.S. state of Tennessee.

## 10. Labor, migration, and population

TABLE 10.1. LABOR FORCE PARTICIPATION

*Labor force* is people ages 15 and older who meet the International Labour Organization (ILO) definition of the economically active population. It includes both the employed and the unemployed. While national practices vary in the treatment of such groups as the armed forces and seasonal or part-time workers, the labor force generally includes the armed forces, the unemployed, and first-time job-seekers, but excludes homemakers and other unpaid caregivers and workers in the informal sector. See box 10 for a discussion of employment in the informal sector and informal employment.

*Participation rate* is the percentage of the population ages 15–64 that is economically active, that is, all people who supply labor for the production of goods and services during a specified period.

*Source:* International Labour Organization, Global Employment Trends Model 2006, Employment Trends Team.

TABLE 10.2. LABOR FORCE COMPOSITION

*Agriculture* corresponds to division 1 (International Standard Industrial Classification, ISIC, revision 2) or tabulation categories A

The informal sector accounts for the bulk of nonagricultural employment in developing countries and is particularly notable in the poorest countries, where it has grown in recent decades. In Sub-Saharan Africa the informal sector accounts for as much as 78 percent of nonagricultural employment and 41 percent of gross domestic product (ILO 2002), and serves as the main source of job creation. Given its vital role, measuring and describing informal activity have become increasingly important to designing poverty reduction and growth strategies and to understanding labor markets.

Defining and quantifying informality are complicated by the informal sector's high degree of heterogeneity. The concept is intuitively linked to a variety of characteristics that range from operating outside existing labor regulation, not paying payroll taxes, not having a license or registration, not being firmly established, having very low productivity, being owner operated and having few employees, and the like. Some of those characteristics can be seen as pertaining to a firm's operation, and others to the contractual relationship between the employee and the employers. The informal sector could therefore be understood to include those who are self-employed or wage workers in informal firms, workers at formal firms without legal protections or permanent contracts, "homeworkers" (home-based industrial outworkers), apprentices, unpaid family workers, and domestic workers.

The International Labour Organization, in two International Conferences of Labour Statisticians (ICLS 15 and 17), has rationalized the framework for measuring this phenomenon by adopting a resolution on the statistical definition of employment in the informal sector, first, and then broadening the concept to arrive at measures of informal employment. Such definitions might not do justice to the variety of meanings attached to the concept (for example, it has been argued that formality should be seen as a continuum rather than a clearly defined state), but they offer a solid basis for international comparisons. Because people can hold multiple jobs, the unit of measurement for informal employment is jobs rather than employed persons.

*Employment in the informal sector* is defined as "all jobs in informal sector enterprises or all persons who, during a given reference period, were employed in at least one informal sector enterprises, irrespective of their status in employment and whether it was their main or secondary jobs" (Hussmans 2004).

*Informal sector enterprises* are those that satisfy four criteria:

- They are private unincorporated enterprises (because they are not separate legal entities it is impossible to separate their activities from other activities of their owner).
- They produce at least some goods meant for sale.
- They are limited in employment size, with the threshold determined by national circumstances (though an expert working group recommended that international comparisons be conducted on the basis of less than five workers).
- They are engaged in nonagricultural activities.

The definition of *informal employment* recognizes that informal jobs may also be found in production units that are not in the informal sector. Thus, in addition to employment in the informal sector, the definition includes informal employment outside the informal sector, characterized as "an employment relation that is, in law or practice, not subject to national labour legislation, income taxation, social protection or entitlement to certain employment benefits" (Hussmanns 2004, p. 6).

In practice, informal employment outside the informal sector comprises employees in formal enterprises or households whose employment relations do not comply with labor regulations, contributing family workers in either formal or informal enterprises (because they typically do not have written contracts of employment), and own-account workers engaged in production of goods for final consumption for the households when such production "represents an important contribution to the total consumption of the household" (Hussmanns 2004, p. 6).

Labor force surveys are the best means for monitoring these indicators, though difficulties arise when employees are unaware of the information used to identify informal firms (such as legal organization, bookkeeping, and registration), when lack of probing leads to productive activities that would be considered informal being reported as formal employment, when information is limited to main jobs, and when information is unavailable for periods longer than a weekly recall, given the seasonal nature of some activities. It is also practically impossible to estimate the number of informal sector enterprises from labor force surveys because the surveys are household based rather than firm based.

Moreover, data on informal workers beyond those working for informal firms (such as homeworkers and casual workers) are quite scarce. Efforts to measure and characterize the informal sector should therefore recognize limitations inherent in the available data and use innovative methods to attempt to capture its heterogeneity.

One example of how to address these issues in practice comes from Ethiopia. The Ethiopian Central Statistical Authority's Labor Force Survey and Urban Employment and Unemployment Survey use a definition of the informal sector based on the characteristics of the firm in which respondents work. They define informal businesses as those that do not keep proper accounts, that do not have a business license, or that have fewer than 10 employees. Because the answers to these questions are not recorded separately,<sup>1</sup> it is impossible to change the criterion for identification (and there is no separate information on size of the firm, for example, which could allow for a fine tuning of the definition or adoption of a different cutoff). This definition leads to an estimate of urban employment in the informal sector of 44 percent of people ages 15 and older (see table). This estimate is considerably lower than the available estimates for Africa as a whole, which is about 60 percent in urban areas.

The surveys do not systematically collect information on the contractual relationship with the employer to fully capture informal employment. Nevertheless additional categories of workers in



**Ethiopia: employment in the informal sector and informal employment, urban, ages 15 and older, 2004 (percent)**

	Employment in the informal sector <sup>a</sup>	Informal employment <sup>b</sup>
Total	43.5	54.2
Male	39.4	52.1
Female	49.1	57.0

a. Employed in a business that holds no account book, has no license, or employs fewer than 10 employees.

b. Employed in a business that holds no account book, has no license, employs fewer than 10 employees; is an employee domestic, self-employed, apprentice, or unpaid family worker; or paid only in kind.

Note: Data are for employment in the seven days before the survey.

Source: Ethiopia Urban Employment and Unemployment Survey 2004.

informal contractual relationships (or very likely to be) can be identified, such as domestic employees, self-employed people (who appear to be negligible in the survey), apprentices, unpaid family workers, and workers paid only in kind. Adding these categories to bring the measurement closer to the International Labour Organization definition raises the rate of informality to 54 percent of workers. Such a significant increase underscores the need for caution in making cross-country comparisons using nonstandardized data.

Important limitations of these estimates are the surveys' focus on primary jobs only, excluding secondary activities, which are

more likely to be informal, and the surveys' likely neglect of migrants, who might not be adequately covered in existing sample frames. Extending sample frames to marginal areas, particularly at times of rapid urbanization, and exploring alternative survey techniques, such as recapture methods, can reach a better understanding of the size of important informal activities such as street vending.

Challenges also typically arise in comparing wages in the formal and informal sectors. In Ethiopia's labor force surveys, for example, wage information is not collected for several categories of informal workers, given the difficulties in accounting for in-kind payments and the lack of complete bookkeeping in informal firms. However, knowing about wages is important for understanding well-being among informal sector workers and thus for guiding policymaking. Complementing data analysis with qualitative work may be the best way to arrive at a more nuanced, country-specific assessment of informality.

1. The questions in the Labor Force Survey were nested so that if the firm did not keep books, respondents were asked if the firm had less than 10 employees; if so, respondents were asked if it had a license. Such questioning restricts the definition to keeping books as the broadest possible criterion.

Source: Hussmans 2004.

and B (ISIC revision 3) and includes hunting, forestry, and fishing.

*Industry* corresponds to divisions 2–5 (ISIC revision 2) or tabulation categories C–F (ISIC revision 3) and includes mining and quarrying (including oil production), manufacturing, construction, and public utilities (electricity, gas, and water).

*Services* correspond to divisions 6–9 (ISIC revision 2) or tabulation categories G–P (ISIC revision 3) and include wholesale and retail trade and restaurants and hotels; transport, storage, and communications; financing, insurance, real estate, and business services; and community, social, and personal services.

*Wage and salaried workers (employees)* are workers who hold the type of jobs defined as paid employment jobs, where incumbents hold explicit (written or oral) or implicit employment contracts that give them a basic remuneration that is not directly dependent on the revenue of the unit for which they work.

*Self-employed workers* are self-employed workers with employees (employers),

self-employed workers with without employees (own-account workers), and members of producer cooperatives. Although the contributing family workers category is technically part of the self-employed according to the classification used by the International Labour Organization (ILO), and could therefore be combined with the other self-employed categories to derive the total self-employed, they are reported here as a separate category in order to emphasize the difference between the two statuses, since the socioeconomic implications associated with each status can be significantly varied. This practice follows that of the ILO's *Key Indicators of the Labour Market*.

*Contributing family workers (unpaid workers)* are workers who hold self-employment jobs as own-account workers in a market-oriented establishment operated by a related person living in the same household.

Source: Data are from the ILO's *Key Indicators of the Labour Market*, fourth edition.

TABLE 10.3. MIGRATION AND POPULATION  
*Stock* is the number of people born in a country other than that in which they live. It includes refugees.

*Net migration* is the net average annual number of migrants during the period, that is, the annual number of immigrants less the annual number of emigrants, including both citizens and noncitizens. Data are five-year estimates.

*Workers remittances received* comprise current transfers by migrant workers and wages and salaries by nonresident workers. See box 11 for a discussion of remittances in Africa.

*Population* is World Bank estimates, usually projected from the most recent population censuses or surveys (mostly from 1980–2004). Refugees not permanently settled in the country of asylum are generally considered to be part of the population of their country of origin.

*Fertility rate* is the number of children that would be born to a woman if she were to live to the end of her childbearing years and bear children in accordance with current age-specific fertility rates.

*Age composition* refers to the percentage of the total population that is in specific age groups.

*Dependency ratio* is the ratio of dependents—people younger than 15 or older than 64—to the working-age population—those ages 15–64.

*Rural population* is calculated as the difference between the total population and the urban population.

*Urban population* is midyear population of areas defined as urban in each country.

Source: World Bank's World Development Indicators database.

## 11. HIV/AIDS

TABLE 11.1. HIV/AIDS

*Estimated number of people living with HIV/AIDS* is the number of people in the relevant age group living with HIV.

*Estimated prevalence rate* is the percentage of the population of the relevant age group who are infected with HIV. Depending on the reliability of the data available, there may be more or less uncertainty surrounding each estimate. Therefore, plausible bounds have been presented for adult rate (low and high estimate).

*Deaths due to HIV/AIDS* are the estimated number of adults and children that have died in a specific year based in the modeling of HIV surveillance data using standard and appropriate tools.

*AIDS orphans* are the estimated number of children who have lost their mother or both parents to AIDS before age 17 since the epidemic began in 1990. Some of the orphaned children included in this cumulative total are no longer alive; others are no longer under age 17.

Source: The Joint United Nations Programme on HIV/AIDS and the World Health Organization's 2006 Report on the Global AIDS Epidemic.

## 12. Malaria

TABLE 12.1. MALARIA

*Population* is World Bank estimates, usually projected from the most recent population censuses or surveys (mostly from 1980–2004). Refugees not permanently settled in the country of asylum are generally considered to be part of the population of their country of origin.

*Endemic risk of malaria* is the percentage of the population living in areas with significant annual transmission of malaria, be it seasonal or perennial.

*Epidemic risk of malaria* is the percentage of the population living in areas prone to distinct interannual variation, with no transmission taking place at all in some years.

*Negligible risk of malaria* is the percentage of the population living in areas where malaria is ordinarily not present and where the risk of malaria outbreaks is negligible.

*Deaths due to malaria* are the number of malaria deaths per 100,000 people.

*Under-five mortality rate* is the probability that a newborn baby will die before reaching age 5, if subject to current age-specific mortality rates. The probability is expressed as a rate per 1,000.

*Children sleeping under insecticide-treated bednets* is the percentage of children under age 5 with access to an insecticide-treated bednet to prevent malaria.

*Children with fever receiving antimalarial treatment within 24 hours* are the percentage

Workers remittances have emerged as a major source of external development finance in recent years. Because of the large size of remittances, governments in developing and developed countries have focused on the development impact of remittances and on regulatory issues in sending and receiving remittances. Reliable data on remittances are hard to come by. While the International Monetary Fund publishes statistics on “workers remittances, compensation of employees, and migrants transfers,” the data are not comprehensively reported, nor do they capture monetary flows outside formal financial channels.

#### Issues to consider in quantifying remittances

Workers remittances have been understood to be a migrants’ earnings sent from abroad to relatives in their country of origin to meet economic and financial obligations. Interest has been growing in the concept of residence and in information on migrant workers and their associated remittances flows. One problem with measurement is the difficulty of determining actual length of stay and of applying the concept of residency to distinguish between compensation of employees and workers remittances.

A way around this is to use the concept of household to household transactions to capture the component of personal transfers instead. It is important to use broader definitions of remittances, including personal remittances and institutional remittances. The International Monetary Fund recently completed a draft of the sixth edition of the *Balance of Payments and International Investment Position Manual* which introduces the term *personal transfers*, which comprises all current transfers in cash or in kind made or received by resident households to or from other nonresident households (IMF Committee on Balance of Payments Statistics 2006). This term will replace the component *workers’ remittances*. The sixth edition will include a new concept of remittances for measuring and analyzing international remittances and resource flows to households and nonprofit institutions serving households. Three categories of remittances would be introduced: personal remittances, total remittances, and total remittances and transfers to nonprofit institutions serving households (IMF 2007).

Countries do not apply the concepts uniformly. Data deficiencies and data omissions further cloud the picture. Data inaccuracy stems from problems associated with knowing the universe of remitters and the intermediaries facilitating the process, enforcing data collection, maintaining a line of communication with intermediaries and other relevant organizations, and possessing the appropriate methodologies to capture the data (Orozco 2005).

Consider Ghana. The Bank of Ghana reports the value of international remittances for 2005 as \$99.2 million, but the Ghana minister of finance recently announced that international remittances in 2006 totaled \$1.8 billion, leading to confusion. In April the Bank of Ghana reported that it estimated total private transfers made to “nongovernmental organizations, embassies, service providers, individuals, and the like” at \$5.8 billion. Only a portion of these transfers are remittances; the rest are payments to service providers,

foreign direct investment, investment income, and portfolio investment (Economist Intelligence Unit 2007). Bank of Ghana officials acknowledged that the flows that they register represent only a fraction of what is probably entering into the country. Their figure does not include all unofficial remittances, which arrive through money-transfer bureaus, transfers such as deposits into personal accounts, and physical movements of cash or goods across borders.

#### Unrecorded remittances

Official data on remittances are believed to be underestimated, perhaps severely, but there is little agreement on the size of the undercounting. A recent International Monetary Fund study (El-Qorchi, Maimbo and Wilson 2003) estimated that unofficial transfers of remittances to developing countries amount to \$10 billion a year. Another study estimates that global remittances are about 2.5 times the size of recorded remittances reported in the International Monetary Fund’s balance of payments data (AITE 2005). These estimates differ by a factor of 25. Freund and Spatafora (2005) estimate that informal remittances to Sub-Saharan Africa are relatively high—45–65 percent of formal flows—compared with only about 5–20 percent in Latin America. Adams and Page (2003) and Page and Plaza (2006) also find that unrecorded remittances are large—48 percent worldwide—ranging from 73 percent in Sub-Saharan Africa to a negligible amount in South Asia.<sup>1</sup> Sub-Saharan Africa has the highest share of unrecorded remittances, which may reflect the fact that informal channels are common in many African countries because the formal financial infrastructure is limited (Page and Plaza 2006).

Undercounting arises from two sources. First, most remittance source countries do not require “small” transactions to be reported.<sup>2</sup> Remittances through post offices, exchange bureaus, and other money transfer companies are often not reflected in the official statistics (World Bank 2006).<sup>3</sup> Second, official data do not capture remittance flows through informal channels. Remittances transferred through agents such as informal operators or hand carried by travelers may be nearly as large as remittances through official channels.

A recent World Bank study (Sander and Maimbo 2003) reports that unrecorded flows appear to be high in Africa. In Sudan, for example, informal remittances are estimated at 85 percent of total remittance receipts. Preliminary findings from Mazzucato, van den Boom, and Nsawah-Nuamah (2004) of the Ghana Transnational Networks research program in Amsterdam show that as much as 65 percent of total remittances to Ghana may be sent informally, and the Bank of Ghana estimates that informal flows are at least as high as recorded flows. In South Africa an informal money remittance system exists side by side with the formal system, and the bulk of remittances to neighboring countries flows through informal channels (Genesis Analytics 2003). In Comoros informal transfers account for approximately 80 percent of remittances (da Cruz, Fegler, Schwartzman, 2004). The weakness of the Comoros banking sector—Comoros has only one commercial bank—may account for the wide use of informal channels.

(continued)

One example of an informal remittance transfer system is the Somali *xawilaad*. Operated by Somalis and used mainly by Somalis, the *xawilaad* is an informal system of value transfer that operates in almost every part of the world (Horst and Van Hear 2002). Interviews conducted in Virginia, in the United States (one of the areas with the largest Somali migrant population), report that two large companies provide transfers of remittances to the Somali community: Dahbbshil and Amal. (After September 11 one of the largest *xawilaad* companies, Al Barakat, closed down.) The system relies heavily on telecommunications, so *xawilaad* companies have invested in telephones, mobile radio systems, computer networks, and satellite telecommunications facilities (Montclos and Kagwanja 2000; Gundel 2003). Transfers by *xawilaad* are fast and efficient (Montclos 2002). But it is very difficult to estimate the amount of remittances sent through this system to Kenya (the largest refugee site of Somalis) and Somalia.

While some efforts have been made to improve the development impact of remittances in developing countries (such as new definitions in the balance of payments), a need remains to improve data on remittances in Sub-Saharan Africa.

1. The zero estimate for South Asia is a result of the estimating technique. The country observations for which data are available form a portion of the "outer bound" regression plane, and hence their officially recorded remittances are accepted as total remittances. This is not strictly true, but the pattern does conform to the observation that remittances in South Asia increasingly have moved through recorded channels.
2. For example, the reporting threshold (typically per person per day) is \$10,000 in the United States, 12,500 euros in Western Europe, and 3 million yen in Japan.
3. The Bank of Ghana is one of the few banks that collect statistics in remittances and require information from registered banks and transfer agencies.

of children under age 5 in malaria-risk areas with fever being treated with antimalarial drugs.

*Pregnant women receiving two doses of intermittent preventive treatment* are the number of pregnant women who receive at least two preventive treatment doses of an effective antimalarial drug during routine antenatal clinic visits. This approach has been shown to be safe, inexpensive, and effective.

*Source:* Data on population are from the World Bank's Development Data Platform. Data on risk of malaria, children with fever receiving antimalarial drugs, and pregnant women receiving two doses of intermittent preventive treatment are from Demographic Health Surveys, Multiple Indicator Cluster Surveys, and national statistical offices. Data on deaths due to malaria are from the United Nations Statistics Division based on World Health Organization (WHO) estimates. Data on under-five mortality are harmonized estimates of the WHO, United Nations Children's Fund, and the World Bank, based mainly on household surveys, censuses, and vital registration, supplemented by World Bank estimates based on household surveys and vital registration. Data on insecticide-treated bednet use are from Demographic and Health Surveys and Multiple Indicator Cluster Surveys.

### 13. Capable states and partnership

TABLE 13.1. AID AND DEBT RELIEF

*Net aid from all donors* is net aid from the Organisation for Economic Co-operation and Development's (OECD) Development Assistance Committee (DAC), non-DAC bilateral (Organization of Petroleum Exporting Countries [OPEC], the former Council for Mutual Economic Assistance [CMEA] countries, and China [OECD data]), and multilateral donors. OPEC countries are Algeria, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela. The former CMEA countries are Bulgaria, Czechoslovakia, the former German Democratic Republic, Hungary, Poland, Romania, and the former Soviet Union). See box 12 for a discussion of accounting for debt forgiveness in official development assistance statistics.

*Net aid from DAC donors* is net aid from OECD's DAC donors, which include Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Italy, Japan, the Netherlands, Norway, Sweden, Switzerland, the United Kingdom, and the United States. Ireland and New Zealand have been excluded in this compilation because their aid to Africa is negligible.

*Net aid from multilateral donors* is net aid from multilateral sources, such as the African Development Fund, the European

A surge in debt forgiveness grants beginning in 2002 has drawn attention to their treatment in official development assistance (ODA) statistics. These grants from the Organisation for Economic Co-operation and Development's Development Assistance Committee (DAC) countries have ballooned from a modest \$2.5 billion in 2001 to \$25 billion in 2005 (measured in gross terms). One-half to three-quarters of these grants have been allocated to Sub-Saharan Africa, except in 2005 when large debt relief operations for Iraq amounted to nearly \$14 billion. The prominence of debt relief in aid flows in recent years is evident: bilateral ODA to Africa doubled (in nominal terms) over 2000–05, and about half of the expansion represented debt relief (see table).

There are several conceptual and measurement issues with DAC debt forgiveness statistics. Depetris Chauvin and Kraay (2005, 2006) argue that the standard data do not provide a reliable estimate of the value of debt relief—that is, in present value terms. They have developed their own present value estimates of debt relief. Another problem with DAC debt relief statistics is that forgiveness of outstanding amounts, debt service flows, and arrears is treated in the same way, even though the cash flow implications for borrowers' budgets are quite different. Despite these methodological issues, DAC debt forgiveness statistics are widely used for analytical and monitoring purposes.

Debt relief from the donors' perspective—budget effort—can be quite different from that from the recipients' perspective—availability of resources. One important question that arises then is whether ODA debt forgiveness grants represent additional flows (cross-border flows) to recipients. Several advocacy groups have argued that ODA statistics are misleading because debt cancellations do not represent “genuine” aid (see ActionAid International 2005).

DAC statistical guidelines allow debt cancellation to be reported as debt forgiveness when the action on debt occurs within the “framework of a bilateral agreement and is implemented for the purpose of promoting the development or welfare of the recipient” (OECD–DAC 2000a,b). Thus, forgiveness of ODA, other official flows, and private claims—principal, interest, and arrears—is captured in DAC statistics under “Debt forgiveness grants.”<sup>1</sup> Appropriate offsetting items (or counter entries) for principal and interest of each type of claim are reported, but not all are ODA flows—only forgiven principal on ODA loans is included under “offsetting entry for debt forgiveness” in ODA flows.<sup>2</sup>

Most debt forgiveness grants in DAC statistics represent forgiveness of other official flows and private claims typically under the framework of the Paris Club. The counter entries are not ODA flows, so there is concern that recent debt actions assign a large amount of flows to recipients that do not represent any new transfer of resources. This point is well illustrated by the 2002 Paris Club debt relief agreement for Democratic Republic of Congo. The country had an unbearable debt burden and under reasonable conditions was clearly unable to meet its obligations to external creditors. The Paris Club agreement restructured \$8.98 billion of debt—\$8.49 billion in principal and interest arrears and \$490 million of future payments (Paris Club 2002). Only about \$1.4 billion of the outstanding claims

**Development Assistance Committee debt forgiveness grants and net official development assistance to Sub-Saharan Africa (\$ billions, 2000–05)**

Year	Debt forgiveness grants	Offsetting entries for debt relief	Net debt forgiveness grants	Total net official development assistance
2000	1.23	0.43	0.80	8.14
2001	1.28	0.30	0.98	8.17
2002	2.96	0.37	2.59	11.40
2003	6.48	0.39	6.10	17.24
2004	4.97	1.73	3.24	16.71
2005	9.46	1.51	7.94	22.51

Source: OECD-DAC database.

were ODA loans. The country received Naples Terms—67 percent of commercial credits were cancelled and the remaining 33 percent were rescheduled; and ODA credits were rescheduled. (In November 2003 the country received Cologne Terms from Paris Club creditors.) The resulting DAC data for ODA disbursements in 2003 (when the bulk of relief granted under the Paris Club agreement was reported in the DAC statistics) show debt forgiveness grants of \$4.441 billion and offsetting entries for debt relief of only \$4.9 million. Together, these two items account for \$4.44 billion of net ODA flows. The country did not receive additional resources of anything close to this amount. However, the country's debt burden was substantially reduced, and it was able to normalize relations with the international community, improving its prospects for growth.

Although debt cancellation may not deliver additional flows to borrowers, it does reflect government budget effort. The extent of the budget effort will depend on the terms of government guarantees for export and commercial credits and on the timing of writeoffs for official loans—some may already have been written down (see also OECD 2007). Because of differences in practices across donors, the extent of the budget effort for a particular debt action varies across countries.

This note is adapted from box 4.1 of *Global Monitoring Report 2007: Confronting the Challenges of Gender Equality and Fragile States* (World Bank 2007). A host of debt actions are presented in Development Assistance Committee statistics; the focus here is on debt forgiveness.

1. Reorganization of other official funds and private claims within the framework of the Paris Club often involves concessionality in the form of debt reduction, debt service reduction, and capitalization of moratorium interest. The cancellation of part of the claims (or the amount equivalent to the reduction in net present value) is treated as debt forgiveness in ODA with no offsetting items in ODA flows. Amounts of other official funds and private claims that are rescheduled are not part of ODA and are included as “Rescheduling” loans under other official funds flows.

2. Forgiven other official funds principal is reported under “Offsetting entries for debt relief” in other official funds flows and forgiven private principal is accounted in “Offsetting entry for debt relief” under private flows. There are no offsets to forgiven interest in ODA, other official funds, or private flows. Instead, appropriate counter entries “Offsetting entry for forgiven interest” are to be noted in memo items—the data for which are usually incomplete. The result is that the treatment of debt cancellation in ODA statistics assigns a larger amount of net flows to recipients than amounts actually received.

Development Fund for the Commission of the European Communities, the International Development Association, the International Fund for Agricultural Development, Arab and OPEC financed multilateral agencies, and UN programs and agencies. Aid flows from the International Monetary Fund's (IMF) Trust Fund and Structural Adjustment Facility are also included. UN programs and agencies include the United Nations Technical Assistance Programme, the United Nations Development Programme, the United Nations Office of the High Commissioner for Refugees, the United Nations Children's Fund, and the World Food Programme. Arab and OPEC financed multilateral agencies include the Arab Bank for Economic Development in Africa, the Arab Fund for Economic and Social Development, the Islamic Development Bank, the OPEC Fund for International Development, the Arab Authority for Agricultural Investment and Development, the Arab Fund for Technical Assistance to African and Arab Countries, and the Islamic Solidarity Fund.

*Net aid as a share of gross domestic product (GDP)* is calculated by dividing the nominal total net aid from all donors by nominal GDP. For a given level of aid flows, devaluation of a recipient's currency may inflate the ratios shown in the table. Thus, trends for a given country and comparisons across countries that have implemented different exchange rate policies should be interpreted carefully.

*Net aid per capita* is calculated by dividing the nominal total net aid by midyear population. These ratios offer some indication of the importance of aid flows in sustaining per capita income and consumption levels, although exchange rate fluctuations, the actual rise of aid flows, and other factors vary across countries and over time.

*Net aid as a share of gross capital formation* is calculated by dividing the nominal total net aid by gross capital formation. These data highlight the relative importance of the indicated aid flows in maintaining and increasing investment in these economies. The same caveats mentioned above apply to their interpretation. Furthermore, aid flows do not exclusively finance investment (for example, food aid finances consumption), and the share of aid going to investment varies across countries.

*Net aid as a share of imports of goods and services* is calculated by dividing nominal total net aid by imports of goods and services.

*Net aid as a share of central government expenditure* is calculated by dividing nominal total net aid by central government expenditure.

*Heavily Indebted Poor Countries (HIPC) Debt Initiative decision point* is the date at which a HIPC with an established track record of good performance under adjustment programs supported by the International Monetary Fund and the World Bank commits to undertake additional reforms and to develop and implement a poverty reduction strategy.

*HIPC Debt Initiative completion point* is the date at which the country successfully completes the key structural reforms agreed on at the decision point, including developing and implementing its poverty reduction strategy. The country then receives the bulk of debt relief under the HIPC Initiative without further policy conditions.

*Debt service relief committed* is the amount of debt service relief, calculated at the decision point, that will allow the country to achieve debt sustainability at the completion point.

Source: OECD and World Bank data.

TABLE 13.2. CAPABLE STATES

*Courts* are the share of senior managers who ranked courts and dispute resolution systems as a major or very severe constraint.

*Crime* is the share of senior managers who ranked crime, theft, and disorder as a major or very severe constraint.

*Number of procedures to enforce a contract* is the number of independent actions, mandated by law or courts, that demand interaction between the parties of a contract or between them and the judge or court officer.

*Time required to enforce a contract* is the number of calendar days from the filing of the lawsuit in court until the final determination and, in appropriate cases, payment.

*Cost to enforce a contract* is court and attorney fees, where the use of attorneys is mandatory or common, or the cost of an administrative debt recovery procedure, expressed as a percentage of the debt value.

*Protecting investors disclosure index* measures the degree to which investors are

protected through disclosure of ownership and financial information.

*Director liability index* measures a plaintiff's ability to hold directors of firms liable for damages to the company).

*Shareholder suits index* measures shareholders' ability to sue officers and directors for misconduct.

*Investor protection index* measures the degree to which investors are protected through disclosure of ownership and financial information regulations.

*Number of tax payments* is the number of taxes paid by businesses, including electronic filing. The tax is counted as paid once a year even if payments are more frequent.

*Time to prepare, file, and pay taxes* is the number of hours it takes to prepare, file, and pay (or withhold) three major types of taxes: the corporate income tax, the value added or sales tax, and labor taxes, including payroll taxes and social security contributions.

*Total tax payable* is the total amount of taxes payable by the business (except for labor taxes) after accounting for deductions and exemptions as a percentage of gross profit. For further details on the method used for assessing the total tax payable, see the World Bank's *Doing Business 2006*.

*Extractive Industries Transparency Initiative (EITI) Endorsed* indicates whether a country has implemented or endorsed the EITI, a multistakeholder approach to increasing governance and transparency in extractive industries. It includes civil society, the private sector, and government and requires a work plan with timeline and budget to ensure sustainability, independent audit of payments and disclosure of revenues, publication of results in a publicly accessible manner, and an approach that covers all companies and government agencies. EITI supports improved governance in resource-rich countries through the verification and full publication of company payments and government revenues from oil, gas, and mining. EITI is a global initiative and the EITI Secretariat has developed an EITI Source Book that provides guidance for countries and companies wishing to implement the initiative (<http://www.eitransparency.org/section/abouteiti>).

*EITI report produced* indicates whether the country has publicly released an EITI report. Generally, a report is produced after the EITI principles are adopted.

*Corruption Perceptions Index transparency index* is the annual Transparency International corruption perceptions index, which ranks more than 150 countries in terms of perceived levels of corruption, as determined by expert assessments and opinion surveys.

*Source:* Data on investment climate constraints to firms are based on enterprise surveys conducted by the World Bank and its partners during 2001–05 (<http://rru.worldbank.org/EnterpriseSurveys>). Data on enforcing contracts, protecting investors, and regulation and tax administration are from the World Bank's Doing Business project (<http://rru.worldbank.org/DoingBusiness/>). Data on the EITI are from the EITI website, [www.eitransparency.org](http://www.eitransparency.org). Data on corruption perceptions index are from Transparency International ([www.transparency.org/policy\\_research/surveys\\_indices/cpi](http://www.transparency.org/policy_research/surveys_indices/cpi)).

#### TABLE 13.3. GOVERNANCE AND ANTI-CORRUPTION INDICATORS

*Voice and accountability* measures the extent to which a country's citizens are able to participate in selecting their government and to enjoy freedom of expression, freedom of association, and a free media.

*Political stability and absence of violence* measures the perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including domestic violence or terrorism.

*Government effectiveness* measures the quality of public services, the quality and degree of independence from political pressures of the civil service, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.

*Regulatory quality* measures the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.

*Rule of law* measures the extent to which agents have confidence in and abide by the rules of society, in particular the quality of contract enforcement, the police, and the courts, as well as the likelihood of crime and violence.

*Control of corruption* measures the extent to which public power is exercised for private gain, including petty and grand forms of corruption, as well as "capture" of the state by elites and private interests.

*Source:* Data are from the World Bank Institute's Worldwide Governance Indicators database, which relies on 33 sources, including surveys of enterprises and citizens, and expert polls, gathered from 30 organizations around the world.

TABLE 13.4. COUNTRY POLICY AND INSTITUTIONAL ASSESSMENT RATINGS

The Country Policy and Institutional Assessment (CPIA) assesses the quality of a country's present policy and institutional framework. "Quality" means how conducive that framework is to fostering sustainable, poverty-reducing growth and the effective use of development assistance. The CPIA is conducted annually for all International Bank for Reconstruction and Development and International Development Association borrowers (except Liberia and Somalia), but results are reported only for International Development Association members. It has evolved into a set of criteria grouped into four clusters with 16 criteria that reflect a balance between ensuring that all key factors that foster pro-poor growth and poverty alleviation are captured, without overly burdening the evaluation process.

- Economic management
  - *Macroeconomic management* assesses the quality of the monetary, exchange rate, and aggregate demand policy framework.
  - *Fiscal policy* assesses the short- and medium-term sustainability of fiscal policy (taking into account monetary and exchange rate policy and the sustainability of the public debt) and its impact on growth.
  - *Debt policy* assesses whether the debt management strategy is conducive to minimize budgetary risks and ensure long-term debt sustainability
- Structural policies
  - *Trade* assesses how the policy framework fosters trade in goods. It covers two areas: trade regime restrictiveness—which focuses on the height of tariffs barriers, the extent to which nontariff barriers are used, and the transparency and predictability of the trade regime—and customs and trade facilitation—which includes the extent to which the customs service is free of corruption, relies on

risk management, processes duty collections and refunds promptly, and operates transparently.

- *Financial sector* assesses the structure of the financial sector and the policies and regulations that affect it. It covers three dimensions: financial stability; the sector's efficiency, depth, and resource mobilization strength; and access to financial services.
- *Business regulatory environment* assesses the extent to which the legal, regulatory, and policy environment helps or hinders private business in investing, creating jobs, and becoming more productive. The emphasis is on direct regulations of business activity and regulation of goods and factor markets. It measures three subcomponents: regulations affecting entry, exit, and competition; regulations of ongoing business operations; and regulations of factor markets (labor and land).
- Policies for social inclusion and equity
  - *Gender equality* assesses the extent to which the country has enacted and put in place institutions and programs to enforce laws and policies that promote equal access for men and women to human capital development and to productive and economic resources and that give men and women equal status and protection under the law.
  - *Equity of public resource use* assesses the extent to which the pattern of public expenditures and revenue collection affects the poor and is consistent with national poverty reduction priorities. The assessment of the consistency of government spending with the poverty reduction priorities takes into account the extent to which individuals, groups, or localities that are poor, vulnerable, or have unequal access to services and opportunities are identified; a national development strategy with explicit interventions to assist those individuals, groups, and localities has been adopted; and the composition and incidence of public expenditures



are tracked systematically and their results feedback into subsequent resource allocation decisions. The assessment of the revenue collection dimension takes into account the incidence of major taxes—for example, whether they are progressive or regressive—and their alignment with the poverty reduction priorities. When relevant, expenditure and revenue collection trends at the national and subnational levels should be considered. The expenditure component receives two-thirds of the weight in computing the overall rating.

- *Building human resources* assesses the national policies and public and private sector service delivery that affect access to and quality of health and nutrition services, including population and reproductive health; education, early childhood development, and training and literacy programs; and prevention and treatment of HIV/AIDS, tuberculosis, and malaria.
- *Social protection and labor* assess government policies in the area of social protection and labor market regulation, which reduce the risk of becoming poor, assist those who are poor to better manage further risks, and ensure a minimal level of welfare to all people. Interventions include social safety net programs, pension and old age savings programs, protection of basic labor standards, regulations to reduce segmentation and inequity in labor markets, active labor market programs (such as public works or job training), and community driven initiatives. In interpreting the guidelines it is important to take into account the size of the economy and its level of development.
- *Policies and institutions for environmental sustainability* assess the extent to which environmental policies foster the protection and sustainable use of natural resources and the management of pollution. Assessment of environmental sustainability requires multidimension criteria (that is, for air, water, waste, conservation management, coastal zones management, and natural resources management).
- Public sector management and institutions
  - *Property rights and rule-based governance* assess the extent to which private economic activity is facilitated by an effective legal system and rule-based governance structure in which property and contract rights are reliably respected and enforced. Three dimensions are rated separately: legal basis for secure property and contract rights; predictability, transparency, and impartiality of laws and regulations affecting economic activity, and their enforcement by the legal and judicial system; and crime and violence as an impediment to economic activity.
  - *Quality of budgetary and financial management* assesses the extent to which there is a comprehensive and credible budget, linked to policy priorities; effective financial management systems to ensure that the budget is implemented as intended in a controlled and predictable way; and timely and accurate accounting and fiscal reporting, including timely and audited public accounts and effective arrangements for follow-up.
  - *Efficiency of revenue mobilization* assesses the overall pattern of revenue mobilization—not only the tax structure as it exists on paper, but revenue from all sources as they are actually collected.
  - *Quality of public administration* assesses the extent to which civilian central government staffs (including teachers, health workers, and police) are structured to design and implement government policy and deliver services effectively. Civilian central government staffs include the central executive together with all other ministries and administrative departments, including autonomous agencies. It excludes the armed forces, state-owned enterprises, and subnational government.

- *Transparency, accountability, and corruption in the public sector* assess the extent to which the executive branch can be held accountable for its use of funds and the results of its actions by the electorate and by the legislature and judiciary, and the extent to which public employees within the executive are required to account for the use of resources, administrative decisions, and results obtained. Both levels of accountability are enhanced by transparency in decisionmaking, public audit institutions, access to relevant and timely information, and public and media scrutiny.

Source: World Bank's Country Policy and Institutional Assessment 2005.

#### 14. Household welfare

The questions asked in household surveys vary by country. Quintiles are derived by ranking weighted sample population by area of residence (rural and urban) and per capita expenditure. Two sets of quintiles are calculated, one for rural and one for urban. Each quintile contains an equal number of people rather than households. The definition of rural and urban also vary by country. See box 13 for a discussion of the West and Central Africa Poverty Mapping Initiative, which combines census and household survey information to construct detailed poverty maps.

*Sample size* is the number of households surveyed in the country.

*Total population* is the weighted estimate of all the surveyed population in the country based on the survey—that is, it is the weighted sample population.

*Age dependency ratio* is the ratio of dependents—people younger than 15 or older than 64—to the working-age population—those ages 15–64.

*Average household size* is the average number of people in a household.

*Monogamous male* is a household headed by man who has no more than one spouse (wife).

*Polygamous male* is a household headed by a man who has more than one spouse (wife).

*Single male* is a household headed by a man who is widowed or divorced or who has never married.

*De facto female* refers to a household without a resident male head or where the male head is not present and the wife is the head by default and serves as the main decision maker in his absence or a household where the resident male head has lost most of his functions as the economic provider due to infirmity, inability to work, or the like.

*De jure female* refers to a household headed by a woman who is widowed, separated, or divorced or who has never been married.

*Mean monthly expenditure* is the average monthly expenditure on both food and non-food items. See box 14 for a discussion of using income data to inform policy.

*Mean monthly share on food* is total monthly food expenditure and food own consumption as a share of total household expenditure.

*Mean monthly share on health* is total health expenditure (consultation, medical procedure, among other) as a share of total household expenditure. Health expenditure excludes hospitalization.

*Mean monthly share on education* is total education expenditure (tuition, transport, and the like) as a share of total household expenditure.

*Primary school within 30 minutes* is the share of households that live within 30 minutes of a primary school.

*Net primary enrollment rate* is the ratio of children of a country's official primary school age who are enrolled in primary school to the total population of the corresponding official primary school age. Primary education provides children with basic reading, writing, and mathematics skills along with an elementary understanding of such subjects as history, geography, natural science, social science, art, and music.

*Net secondary enrollment rate* is the ratio of children of a country's official secondary school age who are enrolled in secondary school to the total population of the corresponding official secondary school age. Secondary education completes the provision of basic education that began at the primary level and aims to lay the foundations for lifelong learning and human development by offering more subject- or skill-oriented instruction using more specialized teachers.

*Tertiary enrollment rate* is the number of students currently in tertiary education per 10,000 people. Tertiary education, whether or not to an advanced research qualification,

### Combining census and household survey data for better targeting: the West and Central Africa Poverty Mapping Initiative

There are often large regional differences in social indicators within a country. But geographic poverty profiles based on household surveys tend to be limited to broad areas because survey sample sizes prevent analysts from constructing valid estimates of poverty at the local level. At the same time policymakers often need finely disaggregated information at the neighborhood, town, or village level to implement antipoverty programs. Following a methodology developed by Elbers, Lanjouw, and Lanjouw (2003), the World Bank's Africa Region launched the West and Central Africa Poverty Mapping Initiative to combine census and household survey data to construct detailed poverty maps.

The methodology is straightforward. First, a regression of adult equivalent consumption is estimated using household survey data,

limiting the set of explanatory variables to ones common to both the survey and the latest census. Second, the coefficients from that regression are applied to the census data to predict the expenditure level of each household in the census. Third, the predicted household expenditures are used to construct a series of poverty and inequality indicators for different geographical population subgroups. Although the idea behind the methodology is simple, its proper implementation requires complex computations.

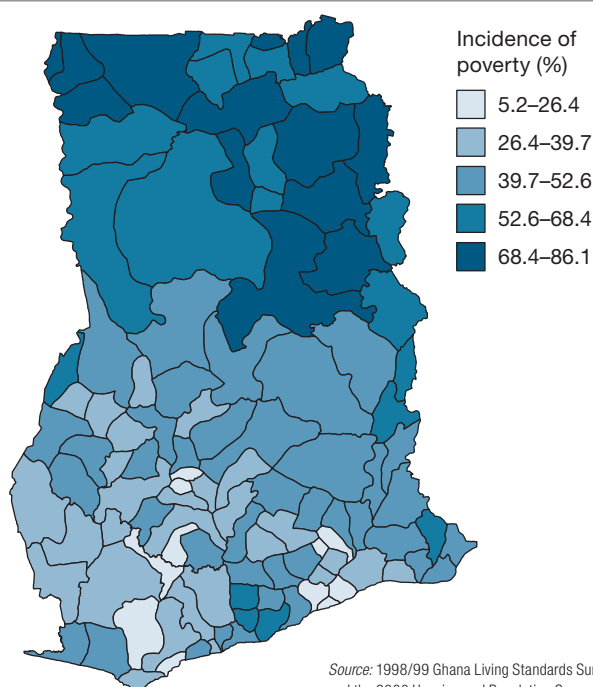
The table below lists the countries participating in the initiative, the year of the census and survey data used, and the administrative level at which poverty estimates are available. The map below—based on the data from the 1998/99 Ghana Living Standards Survey and the 2000 Housing and Population Census—shows poverty by district in Ghana.

**Countries participating in the West and Central Africa Poverty Mapping Initiative**

Country	Census year	Survey year	Administrative levels measured (number)
Burkina Faso	1996	1998	Region (13), Province (45), Department (383)
Cape Verde	2000	2000/01	Ilho (9), Concelho (17), Freguesi (31)
Côte d'Ivoire	1998	2002	Region (19), Department (58), Sous-prefecture (254), Secteur (444)
Gabon	2003	2005	Province (9), Department (48), Canton (219)
Gambia	2003	2003/04	Local government area (8), District (39)
Ghana	2000	1998/99	Region (10), District (138)
	2003 <sup>a</sup>	2005/06	Region (10), District (110)
Guinea	1996	2002	Region (8), Prefecture (38), Commune (341)
Mali	1998	2001	Region (9), Cercle (49), Commune (703)
Mauritania	2000	2004	Wilaya (13), Moughata (53), Commune (216)
Niger	2001	2005	Department (8), Arrondissement (36), Canton/commune (175)
Nigeria	2006 <sup>a</sup>	2003/04	State (37), Senatorial (109)
Rwanda	2002	2000/01	Province (5), District (30), Secteur (416)
Senegal	2001	2001/02	Region (11), Department (34), Arrondissement (133), Commune (426)
Sierra Leone	2004	2002/03	Province (4), District (14), Chiefdom (166)

a. Core Welfare Indicator Questionnaire.  
Source: Coulombe and Wodon 2007.

**Poverty in Ghana, by district, 2000**



Source: 1998/99 Ghana Living Standards Survey and the 2000 Housing and Population Census.

normally requires, as a minimum condition of admission, the successful completion of education at the secondary level.

*Adult literacy rate* is the percentage of adults ages 15 and older who can both read and write a simple sentence in any language.

*Youth literacy rate* is the percentage of youth ages 15–24 who can both read and write a simple sentence in any language.

*Health center less than 1 hour away* is the percentage of the population living less than 1 hour away from a health center.

*Health center less than 5 km away* is the percentage of the population living less than 5 kilometers away from a health center.

*Morbidity* is the percentage of the population who were sick or injured within a given number of weeks before the survey.

*Health care provider consulted when sick* is the percentage of sick people who took any remedial action when sick.

*Type of health care provider consulted* is the type of facility visited by a sick household member. *Public* includes fully government-owned

In many African countries household surveys are well designed to measure consumption and poverty as well as human development outcomes and access to basic infrastructure. But detailed information on the sources of income and the livelihoods of households and individuals are still often lacking. This is problematic because income data is essential to identify the links between growth and poverty reduction, to determine ways to improve the household well-being, and to understand the potential impacts of economic shocks.

To show how simple tabulations on income sources can inform policy debates, consider cotton. World cotton prices (as measured by the Cotlook A Index) have been declining for most of the past decade, and farmers in West Africa especially have suffered from low producer prices. Income data can first be used to identify cotton producers in household surveys. The table below provides data for the “cotton-4” countries—Benin, Burkina Faso, Chad, and Mali. It suggests that cotton producers are on average more likely to be poor than the population as a whole, except in Burkina Faso.

Data on income (and thus implicitly on production levels) can also be used to assess who would benefit from higher producer prices. The table suggests that except for Burkina Faso about two-thirds of cotton production is accounted for by households in the bottom three quintiles of per capita consumption. About two-thirds of the additional income that would be generated by higher cotton producer prices would benefit these households, which are often considered vulnerable because many are poor and those who are not have consumption levels close to the poverty line.

Finally, although not shown in the table, the same data can be used to simulate the impact of changes in producer prices on poverty among producers and among the population as a whole. Because cotton typically accounts for only about half the total income of households producing cotton, and total income also accounts for only half the consumption of households observed in the surveys, poverty measures tend not to change dramatically with producer prices. At the same time, even small differences in income or consumption levels can make a big difference for households that have to survive on very meager resources.

**Poverty among cotton producers and distribution of production, select West African countries, various years (percent)**

	Benin (2003)	Burkina Faso (2003)	Chad (2003)	Mali (2006)
<i>Prevalence of poverty</i>				
Whole population	39.0	46.4	55.0	47.4
Cotton producers	53.6	47.2	72.7	77.8
<i>Share of cotton production</i>				
Bottom population quintile	22.0	13.1 <sup>a</sup>	24.6	23.2
Bottom two population quintiles	44.4	32.3 <sup>a</sup>	51.7	48.6
Bottom three population quintiles	65.9	49.9 <sup>a</sup>	67.3	71.6

a. Data are from the 1997/98 priority survey.  
Source: Tsimpo and Wodon 2007.

as well as semi-public health facilities. *Private, modern medicine*, is facilities set up with profit as their main focus and includes private doctors. *Private, traditional healers* refer to health care providers whose knowledge, skills, and practices are based on the experiences indigenous to different cultures and whose services are directed toward the maintenance of health, as well as the prevention, diagnosis, and improvement of physical and mental illness. *Other* is other types of health providers that cannot be classified by the categories described above.

*Birth assisted by trained staff* are the percentage of deliveries attended by personnel trained to give the necessary supervision, care, and advice to women during pregnancy, labor, and the postpartum period; to conduct deliveries on their own; and to care for newborns.

*Immunization coverage, 1-year-olds*, is the percentage of children ages 12–23 months at the time of survey who received one dose of Bacille Calmette Guerin vaccine, three doses of polio vaccine, three doses of diphtheria, pertussis, and tetanus vaccine, and one dose of measles vaccine.

*Measles immunization coverage, 1-year-olds*, is the percentage of children ages 12–23 months at the time of survey who received a dose of measles vaccine. A child is considered adequately immunized against measles after receiving one dose of vaccine.

*Stunting* is the percentage of children under age 5 whose height for age is more than two standard deviations below the median for the international reference population ages 6–59 months. The reference population, adopted by the World Health Organization in 1983,

is based on children from the United States, who are assumed to be well nourished.

*Wasting* is the percentage of children under age 5 whose weight for height is more than two standard deviations below the median for the international reference population ages 6–59 months. The reference population, adopted by the World Health Organization in 1983, is based on children from the United States, who are assumed to be well nourished.

*Underweight* is the percentage of children under age 5 whose weight for age is more than two standard deviations below the median for the international reference population ages 6–59 months. The reference population, adopted by the World Health Organization in 1983, is based on children from the United States, who are assumed to be well nourished.

*Water source less than 1 hour away* is the percentage of the population living less than 1 hour away from a water source.

*Water source less than 5 km away* is the percentage of the population living less than 5 kilometers away from a water source.

*Market less than 1 hour away* is the percentage of the population living less than 1 hour away from a market.

*Market less than 5 km away* is the percentage of the population living less than 5 kilometers away from a market.

*Access to improved water source* refers to the percentage of the population with reasonable access to an adequate amount of water from an improved source, such as a household connection, public standpipe, borehole, protected well or spring, or rainwater collection. Unimproved sources include vendors, tanker trucks, and unprotected wells and springs. *Own tap* is a household water connection. *Other piped* is a public water connection. *Well, protected*, is a ground water source.

*Traditional fuel use* is the percentage of the population using traditional fuels such as firewood and charcoal as the main source of cooking fuel.

TABLE 14.1. BURKINA FASO HOUSEHOLD SURVEY, 2003

*Household* is the basic socioeconomic unit in which the different members—related or living in the same house or property—put together their resources and jointly meet their basic needs, including food, under the authority of one person who is recognized as the head.

*Source:* Burkina Faso’s Institut National de la Statistique et de la Démographie carried out the Enquête Prioritaire II sur les Conditions de Vie des Ménages au Burkina. Data were collected in 2003. The project was funded by the government of Burkina Faso, the World Bank, the African Development Bank, and the United Nations through the United Nations Development Programme.

TABLE 14.2. CAMEROON HOUSEHOLD SURVEY, 2001

*Household* is people who live under the same roof, take their meals together or in little groups, and put some or all of their incomes together for the group’s spending purposes, at the head of household’s discretion.

*Source:* Cameroon’s Bureau Central des Recensements et des Enquêtes of the Direction de la Statistique et de la Comptabilité carried out the Enquête Camerounaise auprès des Ménages in 2001.

TABLE 14.3. ETHIOPIA HOUSEHOLD SURVEY, 2000

*Household* is a person or a group of people who live under the same roof, share the same meals, and recognize one person as the head.

*Source:* The 1999/2000 Household Income, Consumption, and Expenditure Survey was carried out by the Central Statistical Office. The data collection process was carried out from June 1999 to February 2000.

TABLE 14.4. MALAWI HOUSEHOLD SURVEY, 2004

*Household* is a person living alone or a group of people, either related or unrelated, who live together as a single unit in the sense that they have common housekeeping arrangements (that is, share or are supported by a common budget). Someone who did not live with the household during the survey period was not counted as a current member of the household.

*Literacy* measures the ability to read and write a simple sentence for those who had not attended school in the past two months and was defined based on education attainment for those who had attended school in the past two months.

*Source:* The Malawi National Statistics Office carried out the Integrated Household Survey in 2004/5.

TABLE 14.5. NIGER HOUSEHOLD SURVEY, 2005

*Household* is the set of people who partly or totally shared their expenditures, had not been absent for more than 6 of the 12 months preceding the survey, and were not domestic help. For polygamous households each wife and her children were considered to be a separate household.

*Literacy* measures the number of people with ability to read and write in Portuguese.

*Source:* Direction de la Statistique et des comptes nationaux carried out the Enquete Nationale sur les Conditions de vie des Menages from April 14 to July 11, 2005.

TABLE 14.6. NIGERIA HOUSEHOLD SURVEY, 2004

*Household* is a group of persons who normally cook, eat, and live together. Number of months sharing in these activities was another criterion used to qualify as a household a member (minimum of three months). However, all heads of households irrespective of number of months living elsewhere were included as household members. These people may or may not be related by blood, but make common provision for food or other essentials for living, and they have one person whom they all regard as the head of the household.

*Literacy* measures the number of people with the ability to read and write either in English or any of the local languages.

*Source:* The Federal Office of Statistics, Abuja, of Nigeria carried out the Nigeria Living Standards Survey, an integrated survey. Data were collected between September 2003 and August 2004.

TABLE 14.7. SÃO TOMÉ AND PRÍNCIPE HOUSEHOLD SURVEY, 2000

*Household* is the set of people, related or not, who live together under the same roof, put their resources together, and address as a unit their primary needs, under the authority of one person whom they recognize as the head of the household.

*Literacy* measures the number of people with the ability to read and write a simple sentence.

*Source:* The Instituto Nacional de Estatística of the Ministério de Planamento, Finanças e Cooperaçao carried out the Enquête sur les Conditions de Vie des Ménages in 2000. The project was financed by the government of São Tomé and Príncipe with assistance from the African Development Bank and the United Nations Development Programme. Technical assistance was provided by the International Labour Organization.

TABLE 14.8. SIERRA LEONE HOUSEHOLD SURVEY, 2002/03

*Household* is a group of people who normally cook, eat, and live together. Number of months sharing in these activities was another criterion used to qualify as a household a member (minimum three months). However, all heads of households irrespective of number of months living elsewhere were included as household members. These people may or may not be related by blood, but make common provision for food or other essentials for living, and they have one person whom they all regarded as the head of the household.

*Literacy* measures the number of people with the ability to read and write a simple sentence in either English or the local languages.

*Source:* The Sierra Leone Central Statistical Office carried out the Living Conditions Monitoring Survey. Data were collected between 2002 and 2003.

TABLE 14.9. UGANDA HOUSEHOLD SURVEY, 2002/03

*Household* is individuals who normally eat and live together.

*Literacy* measures the number of people who responded that they could both read and write. The level of education was also used to determine literacy.

*Source:* The Uganda Bureau of Statistics carried out the National Household Survey. Data collection occurred between May 2002 and April 2003. The project was funded by the government of Uganda and the World Bank. Statistics Denmark and the World Bank provided consultants for technical support.