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# Montenegro

## Economic Performance Assessment



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# Montenegro

## Economic Performance Assessment

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Sponsored by the Economic Growth office of USAID's Bureau of Economic Growth, Agriculture and Trade (EGAT), and implemented by Nathan Associates Inc. under Contract No. PCE-I-00-00-00013-00, Task Order 004, the Country Analytical Support (CAS) Project, 2005-2006, has developed a standard methodology for producing analytical reports that provide a clear and concise evaluation of economic growth performance in certain countries. These reports are tailored to meet the needs of USAID missions and regional bureaus for country-specific analysis. Each report contains

- A synthesis of data drawn from numerous sources, including World Bank publications and other international data sets used by USAID for economic growth analysis, as well as accessible host-country data sources;
- International benchmarking to compare country performance to similar countries and groups of countries;
- An easy-to-read analytic narrative that highlights areas in which a country's performance is particularly strong or weak, thereby assisting in the identification of future programming priorities.

Under the CAS Project, Nathan Associates will also respond to mission requests for in-depth sector studies to examine more thoroughly particular issues identified by the data analysis in these country reports.

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# Note

Though most international sources treat Serbia and Montenegro as a unit, it is important to recognize the heterogeneity of these two states within a state when designing policies that support economic growth and poverty reduction. This study therefore focuses on Montenegro independent of Serbia (data presented do not include Kosovo). Where possible, we use data for Montenegro or disaggregate the data for Montenegro from data on Serbia and Montenegro. Figures for Montenegro are not derived from standard sources for each indicator as listed in the technical notes. For this report, the data are also from the International Monetary Fund (IMF), Monstat, the Ministry of Education, the Ministry of Finance, the Central Bank of Montenegro, the Center for Enterprise and Economic Development (CEED), the Institute for Strategic Studies and Prognoses (ISSP), the Agency for Telecommunications, the Parliament of Montenegro, and the Statistical Office of Serbia and Montenegro. Details on indicator sources are in the data supplement. The authors would like to acknowledge the substantial contribution of the ISSP, based in Montenegro, in compiling data.



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## HIGHLIGHTS OF MONTENEGRO'S PERFORMANCE, RELATIVE TO BENCHMARK STANDARDS

Economic Growth	Montenegro's macroeconomic performance has been mixed. Investment, productivity growth and real GDP growth are all low, the latter averaging only 2.1 percent annually over 2000-2004. Per capita GDP, in purchasing power parity dollars, increased by 6.1 percent from 2000 to 2004.
Poverty	Poverty head count by national poverty line is 12.2 percent, around half the regional average.
Gender	Montenegro performs well on gender indicators, with the ratios of male to female literacy and life expectancy near regional averages.
Fiscal and Monetary Policy	Montenegro has adopted the Euro as its official currency, effectively abandoning an independent monetary policy. This helped reduce the inflation rate to 3.2 percent for 2004. The fiscal deficit is within reasonable bounds but planned tax cuts may be unwise, especially when it is necessary to find funds for badly needed capital spending.
Business Environment	The regulatory environment has improved substantially in the past few years. Serbia and Montenegro was ranked as most improved by the World Bank's <i>Doing Business</i> report in 2006. But Montenegro needs to further reduce the length of time it takes to enforce a contract. Corruption and scant adherence to the rule of law continue to impede business operations.
Financial Sector	Domestic credit to the private sector has been growing rapidly, but remains low. The interest rate spread is high, pointing to inefficiencies in the financial sector.
External Sector	Montenegro has been integrating into the world economy and has been experiencing very rapid growth in exports and imports. While this is generally beneficial, persistent large external imbalances (i.e., the current account deficit) threaten economic stability and growth.
Economic Infrastructure	Lack of data on many infrastructure categories prevents comprehensive analysis. The telecommunications infrastructure is good and Internet use is growing rapidly.
Science and Technology	Serbia and Montenegro has had some success attracting new technology. The FDI and Technology Transfer Index score was 3.7 in 2004.
Health	Montenegro has a relatively good performance for indicators pertaining to public health. Life expectancy at birth is 73.1, maternal mortality is very low, and public health expenditure is 7.7 percent of GDP.
Education	Montenegrins meet primary education standards. The youth literacy rate is 99.4 percent. Increasing secondary education completion rates should be prioritized.
Employment and Workforce	Unemployment is a serious problem. The unemployment rate for 2004 was 22.6 percent, about 7 percentage points above the regional average. Lack of opportunities in the job market threatens social stability and the post-conflict transition.
Agriculture	Agricultural productivity is robust and negates concerns associated with food security.

Note: The standards used for the benchmarking analysis are explained in the Appendix.

## NOTABLE STRENGTHS AND WEAKNESSES—SELECTED INDICATORS

Indicators, by topic	Strengths	Weaknesses
Growth Performance		
Real GDP growth rate (%)		X
Share of gross fixed investment in GDP (%)		X
Poverty and Inequality		
Poverty headcount by national poverty line	X	
Demography and Environment		
Adult literacy rate (%)	X	
Fiscal and Monetary Policy		
Inflation (%)	X	
Business Environment		
Corruption perception index (Serbia and Montenegro)		X
Procedures to enforce a contract	X	
Procedures to register property		X
Time to start a business	X	
Financial Sector		
Domestic credit to private sector (% of GDP)		X
Interest rate spread (% , deposit minus lending rate)		X
Monetization (M2 as a % of GDP)		X
Stock market capitalization (% of GDP)	X	
External Sector		
Concentration of exports (top three exports, 3-digit SITC, % exports)		X
Exports growth, goods and services (%)	X	
Current account balance (% GDP)		X
Economic Infrastructure		
Internet users per 1,000 inhabitants	X	
Health		
Maternal mortality rate (per 100,000 live births)	X	
Public health expenditure (percent GDP)	X	
Education		
Net primary enrollment rate (total)	X	
Youth literacy rate	X	

Indicators, by topic	Strengths	Weaknesses
Employment and Workforce		
Labor force participation rate (total)		<b>X</b>
Rigidity of employment index		<b>X</b>
Unemployment rate		<b>X</b>
Agriculture		
Crop production index	<b>X</b>	

*Note:* This chart identifies selective indicators for which Montenegro's performance is particularly strong or weak relative to the benchmark standards; details are discussed in the text. A separate Data Supplement for Montenegro presents a full tabulation of the data examined for this report, including the international benchmark data, along with technical notes on the data sources and definitions.



# 1. Introduction

This paper is one of a series of Economic Performance Assessments prepared for the EGAT Bureau to provide USAID missions and regional bureaus with a concise evaluation of a broad range of indicators relating to economic growth performance in designated host countries. The report draws on a variety of international data sources<sup>1</sup> and uses international benchmarking to identify major constraints, trends, and opportunities for strengthening growth and reducing poverty.

The methodology used here is analogous to examining an automobile dashboard to see which gauges are signaling problems. Sometimes a blinking light has obvious implications—such as the need to fill the fuel tank. In other cases, it may be necessary to have a mechanic probe more deeply to assess the source of the trouble and discern the best course of action.<sup>2</sup> Similarly, the Economic Performance Assessment is based on an examination of key economic and social indicators, to see which ones are signaling problems. In some cases a “blinking” indicator has clear implications, while in other instances a detailed study may be needed to investigate the problems more fully and identify an appropriate course for programmatic action.

The analysis is organized around the mutually supportive goals of transformational growth and poverty reduction.<sup>3</sup> Rapid and broad-based growth is the most powerful instrument for poverty reduction. At the same time, many measures aimed at reducing poverty and lessening inequality can help to underpin rapid and sustainable growth. These interactions create the potential for stimulating a virtuous cycle of economic transformation and human development.

Transformational growth requires a high level of investment and rising productivity. This is achieved by establishing a strong *enabling environment for private sector development* involving multiple elements: macroeconomic stability; a sound legal and regulatory system, including secure contract and property rights; effective control of corruption; a sound and efficient financial system; openness to trade and investment; sustainable debt management;

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<sup>1</sup> Sources include the latest data from USAID’s internal Economic and Social Database (ESDB) and readily accessible public information sources. The ESDB is compiled and maintained by the Development Information Service (DIS), under PPC/CDIE. It is accessible to staff through the USAID intranet.

<sup>2</sup> Sometimes, too, the problem is faulty wiring to the indicator—analogue here to faulty data.

<sup>3</sup> In USAID’s White Paper on *U.S. Foreign Aid: Meeting the Challenges of the Twenty-first Century* (January 2004), transformational growth is a central strategic objective, both for its innate importance as a development goal, and because growth is the most powerful engine for poverty reduction.

investment in education, health, and workforce skills; infrastructure development; and sustainable use of natural resources.

In turn, the impact of growth on poverty depends on policies and programs that create opportunities and build capabilities for the poor. We call this the *pro-poor growth environment*.<sup>4</sup> Here, too, many elements are involved, including effective education and health systems, policies facilitating job creation, agricultural development (in countries where the poor depend predominantly on farming), dismantling barriers to micro and small enterprise development, and progress toward gender equity.

The present evaluation must be interpreted with caution because a concise analysis of this sort cannot provide a definitive diagnosis of economic problems or simple answers to questions about programmatic priorities. Instead, the aim of the analysis is to spot signs of economic growth problems based on a review of selected indicators, subject to limits of data availability and quality. The results should provide insight about potential paths for USAID intervention that complement on-the-ground knowledge and further in-depth studies.

The remainder of the report discusses the most important results of the diagnostic analysis, in three sections: Overview of the Economy; Private Sector Enabling Environment; and Pro-Poor Growth Environment. Table 1-1 summarizes the topic coverage. The appendix provides a brief explanation of the criteria used for selecting indicators, the benchmarking methodology, and a table presenting the full set of indicators examined for this report.

Table 1-1  
*Topic Coverage*

Overview of the Economy	Private Sector Enabling Environment	Pro-Poor Growth Environment
<ul style="list-style-type: none"> <li>• Growth Performance</li> <li>• Poverty and Inequality</li> <li>• Economic Structure</li> <li>• Demographic and Environmental Conditions</li> <li>• Gender</li> </ul>	<ul style="list-style-type: none"> <li>• Fiscal and Monetary Policy</li> <li>• Business Environment</li> <li>• Financial sector</li> <li>• External sector</li> <li>• Economic Infrastructure</li> <li>• Science and Technology</li> </ul>	<ul style="list-style-type: none"> <li>• Health</li> <li>• Education</li> <li>• Employment and Workforce</li> <li>• Agriculture</li> </ul>

---

<sup>4</sup> A comprehensive poverty reduction strategy also requires programs to reduce the *vulnerability* of the poor to natural and economic shocks. This aspect is not covered in the template since the focus is economic growth programs. In addition, it is difficult to find meaningful and readily available indicators of vulnerability to use in the template

## 2. Overview of the Economy

This section reviews basic information on Montenegro's macroeconomic performance, poverty and inequality, economic structure, demographic and environmental conditions, and indicators of gender equity.<sup>5</sup> Some of the indicators cited here are descriptive rather than analytical, and are included to provide context for the performance analysis.

### **GROWTH PERFORMANCE**

Montenegro's recent economic performance has been mixed. Economic growth was relatively slow following the military conflict in Yugoslavia in 1999; GDP increased an average of 2.1 percent in 2000–2004, a low rate for a transition country. In 2004, the economy expanded 3.7 percent, its fastest growth rate in five years but still far below GDP growth rates in comparator country groups, in Bulgaria, and in Romania (Figure 2-1). Measured in U.S. dollars, GDP was \$3,091 in 2004, which exceeded the lower middle-income Central and Eastern European countries<sup>6</sup> (\$2,684) and Bulgaria (\$3,074), but not Romania (\$3,207). The doubling of per capita GDP from 1999 through 2004 reflected the dollar's depreciation against the Euro, Montenegro's official currency since 1999, rather than real growth. The country's adoption of the Euro was also largely responsible for the rapid decline of inflation to 3.2 percent from 1999 to 2004.

The lack of economic growth can be explained by low rates of capital investment and a lack of technological change. The share of fixed investment in GDP declined from 17.6 percent in 2000 to 15.3 percent in 2002 (Figure 2-2), substantially lower than in Bulgaria, Romania, and the comparator country groups. More important, the share is low in absolute terms and signals a serious problem for Montenegro's economic growth. Although data for growth in labor productivity was 4.7 percent for 2003, the large fluctuations during 2000–2001 suggest that the data should be treated with caution.

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<sup>5</sup> A separate Data Supplement provides a full tabulation of data for Montenegro and the international benchmarks, including indicators not discussed in the text, as well as technical notes for each indicator.

<sup>6</sup> LMI CEEC henceforth.

Figure 2-1. Real GDP Growth, percent

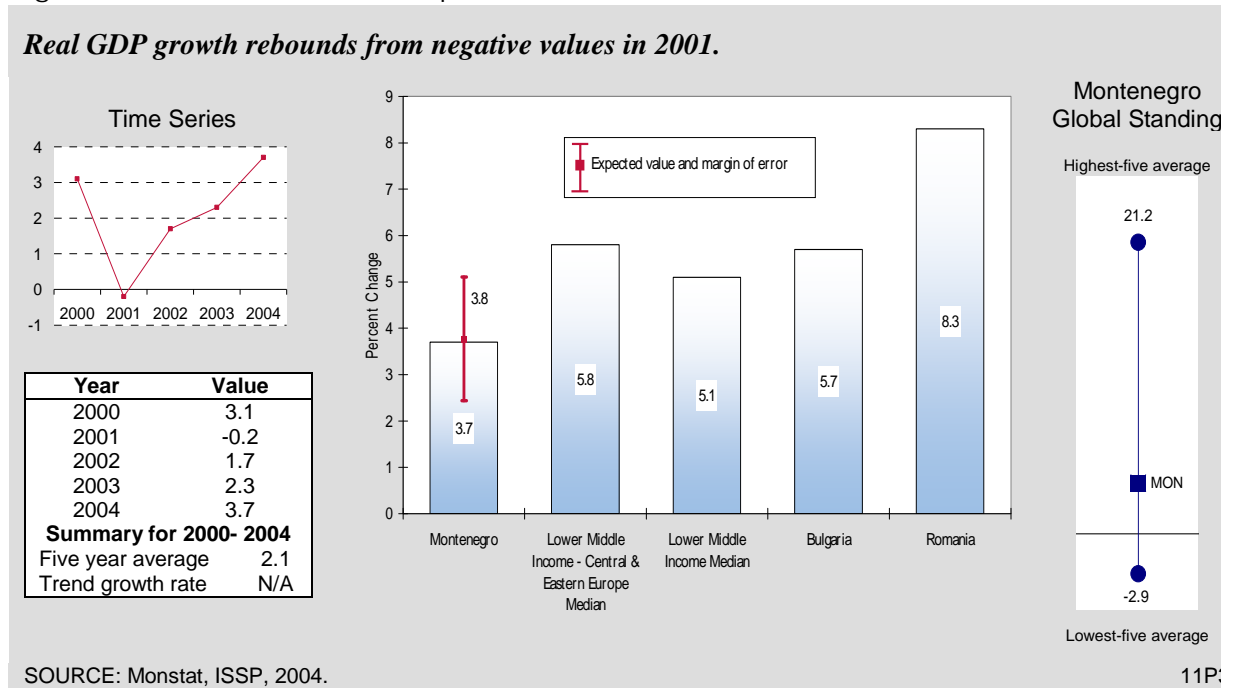
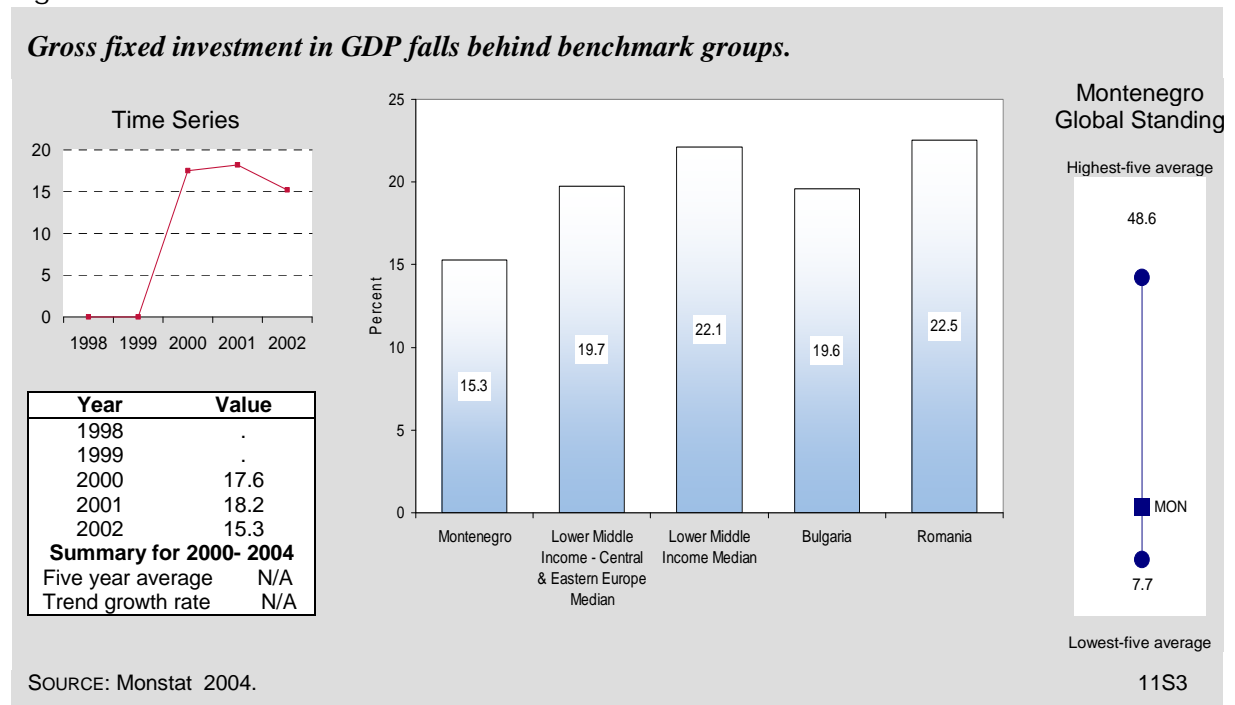


Figure 2-2. Gross Fixed Investment in GDP in Current Prices

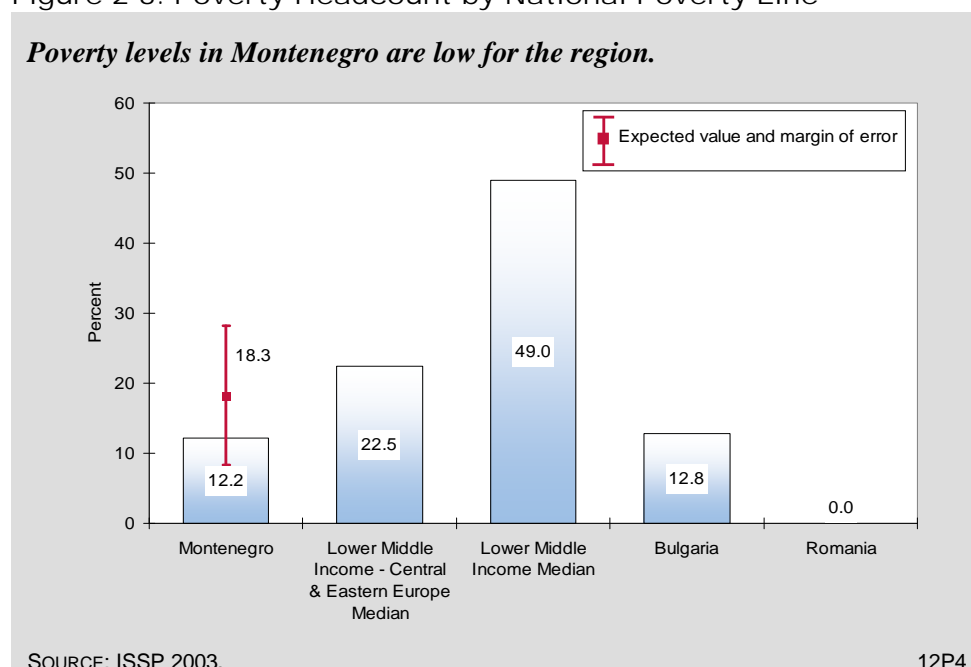




## POVERTY AND INEQUALITY

Few readily available poverty indicators exist for Montenegro.<sup>7</sup> The poverty head count by national poverty line shows that 12.2 percent of the population lives below the poverty line. Although each country has its own poverty line and comparability is difficult, this is less than half the LMI CEEC average of 22.5 percent. Furthermore, the benchmark regression predicts that a country with Montenegro’s characteristics should have a poverty head count of 18.3 percent. (Figure 2-3). While overall poverty rates may be low, important segments of the population remain vulnerable. For example, the uneducated are much more likely to fall into a cycle of poverty. According to the PRSP for Serbia and Montenegro, 30.8 percent of households headed by a person with an elementary education alone are poor, whereas only 7.8 percent of households headed by a person with a secondary education, partial or completed, are poor.<sup>8</sup>

Figure 2-3. Poverty Headcount by National Poverty Line



<sup>7</sup> The lack of data for Serbia and Montenegro means that the following indicators are unavailable for this assessment: Human Poverty Index, income share accruing to the poorest 20 percent, percent population living on less than 1\$ PPP per day, percent population below minimum dietary energy consumption, and poverty gap at \$1 PPP a day.

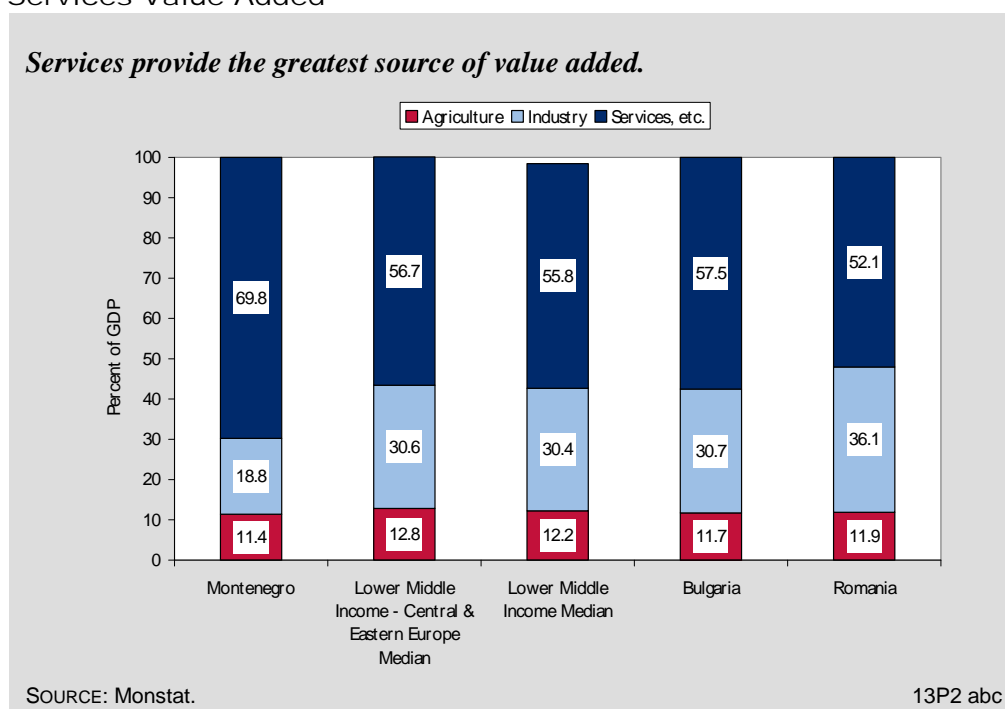
<sup>8</sup> Internal poverty figures provided by the PRSP. Poverty Reduction Strategy Paper Montenegro November, 2003.

## ECONOMIC STRUCTURE

Changes in Montenegro's employment structure in 2000–2004 were consistent with trends in countries experiencing market transformation. The share of services in employment increased markedly from 51.0 percent to 65.3 percent as the share of industry declined.<sup>9</sup>

Data on the structure of output show that services accounted for a substantially higher portion of value-added in Montenegro than in peer countries and country groups. In 2002, services represented 69.8 percent of Montenegrin value-added,<sup>10</sup> much more than in the LMI CEEC, where services stood at 56.7 percent, or in Bulgaria (57.5) and Romania (52.5). The share of industry was only 18.8 percent, much lower than in the LMI CEEC (30.6 percent), Bulgaria (30.7 percent), or Romania (36.1 percent) (Figure 2-4).

Figure 2-4. Output Structure: Agriculture, Industry and Services Value Added



Given Montenegro's very small size, it is difficult to compare the development of its output structure to that of peer countries. The high share of services in value-added may be the result of more advanced economic development, of the country's historical relationship with landlocked

<sup>9</sup> It appears that employment data in Montenegro do not include self-employed (this is also true for Serbian labor statistics). As a result, the reported share of agriculture in employment—2.6 percent in 2004—may significantly underestimate actual employment. Therefore, the employment breakdown cannot be compared to the breakdown in comparator countries. In addition, the combination of reported employment statistics with output statistics exaggerates estimates of labor productivity in agriculture.

<sup>10</sup> This high share of services is suspect, even though it can be partly explained by the role of the tourism sector.

Serbia as part of Yugoslavia, or an inability to specialize efficiently in more than a few sectors (e.g., tourism, metal processing). Montenegro may benefit from international donor organizations' support in assessing its potential comparative advantages and options for economic diversification.

## DEMOGRAPHY AND ENVIRONMENT<sup>11</sup>

Montenegro's population has been rising slowly. In 2004, it was 621,000, up from 612,000 in 2000. Population growth has decelerated somewhat since the 1970s and the 1980s, possibly because of a falling birth rate. Nonetheless, this modest rate of population growth, an average of 0.3 percent annually over the 2000–2004 period, compares favorably with population declines in Bulgaria (0.6 percent) and Romania (0.3 percent).

The age dependency rate for Serbia and Montenegro together is 0.50, not very high in absolute terms, though higher than the rate of 0.44 found in both Bulgaria and Romania and 0.46 percent in the LMI CEECs. This ratio is expected to rise, however, as the population in Serbia and Montenegro ages rapidly; in 2002, the mean age was 40.2, an increase of more than five years compared to 1990. If the trend for Serbia and Montenegro is an accurate reflection of developments in Montenegro alone, the authorities need to prepare themselves for the financial costs associated with pensions and health care for the elderly.

Montenegro's adult literacy rate was 97.5 percent in 2002, about the same level found in Romania (97.3 percent). This rate is high compared to the lower middle income average (87.8 percent) yet on par with its neighbors with an LMI CEEC average of 97.9, one of the inherited benefits of the Communist era. The literacy rate is slightly lower than in Bulgaria (98.6 percent).

## GENDER

Gender equality contributes to pro-poor growth by using the productive capacities of all citizens and enabling the fulfillment of human potential. Montenegro performs well on gender disaggregated indicators for health and education which are proxy indicators for gender equality. In 2004, the ratio of male to female life expectancy at birth was 0.92, close to the LMI CEEC benchmark of 0.93 though slightly below the ratios of Romania and Bulgaria (0.90). Nonetheless, discrepancies in the provision of healthcare for women are not substantial.<sup>12</sup> The ratio of male to female adult literacy is 1.03,<sup>13</sup> slightly above the ratio in Romania and the LMI CEEC average (1.02). Montenegro's ratio of male to female gross enrollment at all levels of education was 1.02 in 2003, whereas the LMI CEEC median and figures for Bulgaria and Romania are all below at 0.96-97. Programs that increase women's access to education increase gender equality, which is a prerequisite for pro-poor growth (Figure 2-5).

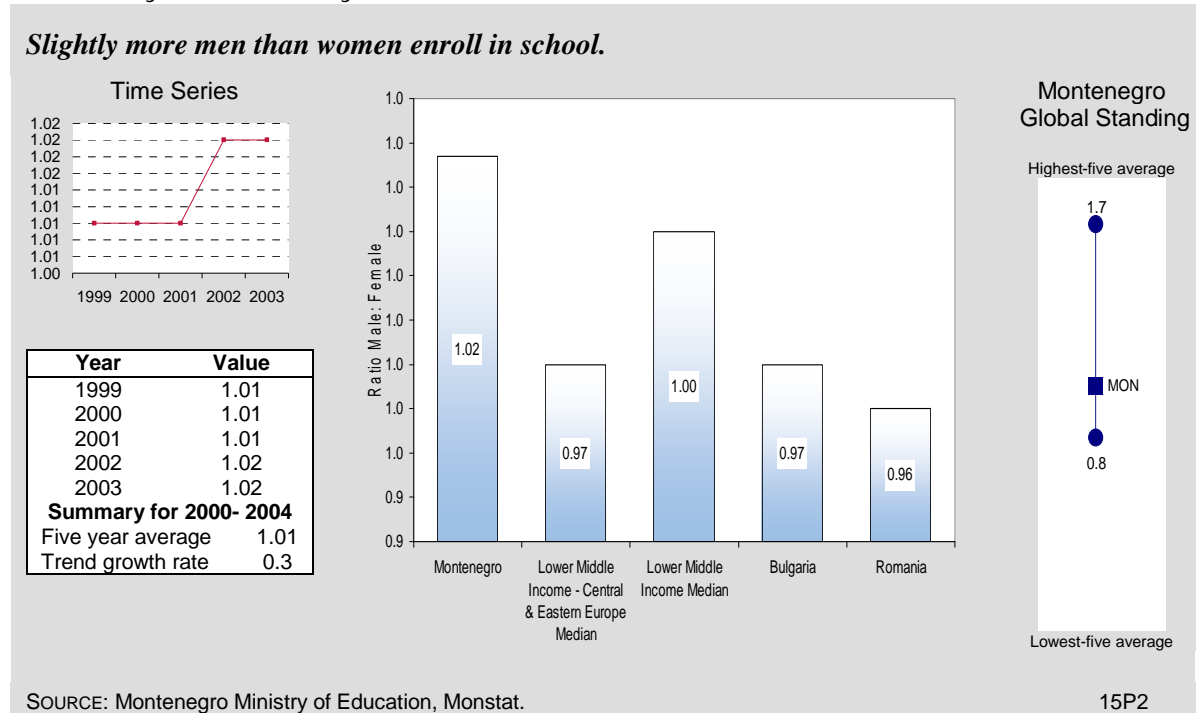
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<sup>11</sup> The environmental sustainability index is not available for Montenegro or Serbia and Montenegro.

<sup>12</sup> The ratio in most OECD countries is between 0.89 and 0.95, with an average of about 0.93. Ratios below 0.89 indicate a problem with male life expectancy. Several transition countries have ratios below 0.8.

<sup>13</sup> Rates are similar in Bulgaria (1.01) and Romania (1.02).

Figure 2-5. Ratio of Male to Female Gross Enrollment, Primary, Secondary, and Tertiary Schools



# 3. Private Sector Enabling Environment

This section reviews indicators for components of the enabling environment that encourage rapid and efficient growth of the private sector. Sound fiscal and monetary policies are essential for macroeconomic stability, which is a necessary (though not sufficient) condition for sustained growth. A dynamic market economy also depends on basic institutional foundations, including secure property rights, an effective system for enforcing contracts, and an efficient regulatory environment that does not impose undue barriers on business activities. Financial institutions play a major role in mobilizing and allocating saving, facilitating transactions, and creating instruments for risk management. Access to the global economy is another aspect of a good enabling environment, because the external sector is a source of potential markets, modern inputs, technology, and finance, as well as competitive pressure for efficiency and rising productivity. Equally important is development of the physical infrastructure to support production and trade. Finally, developing countries need to adapt and apply science and technology as a basis for attracting efficient investment, improving competitiveness, and stimulating productivity growth.

## FISCAL AND MONETARY POLICY <sup>14</sup>

Montenegro adopted the Deutsch Mark as its official currency in 1999. When the Mark was replaced by the Euro, the latter became legal tender. Accordingly, inflation fell from almost 50 percent in 2000 to 3.2 percent in 2004, less than in the comparator country groups, Bulgaria, and Romania (Figure 3-1). At the same time, the use of the Euro as legal tender significantly limits the policy options of Montenegrin monetary authorities (as is the case with all countries that are party to the currency union.) In 2004, the money supply, which under these circumstances reflects net foreign reserves, increased 10.8 percent.

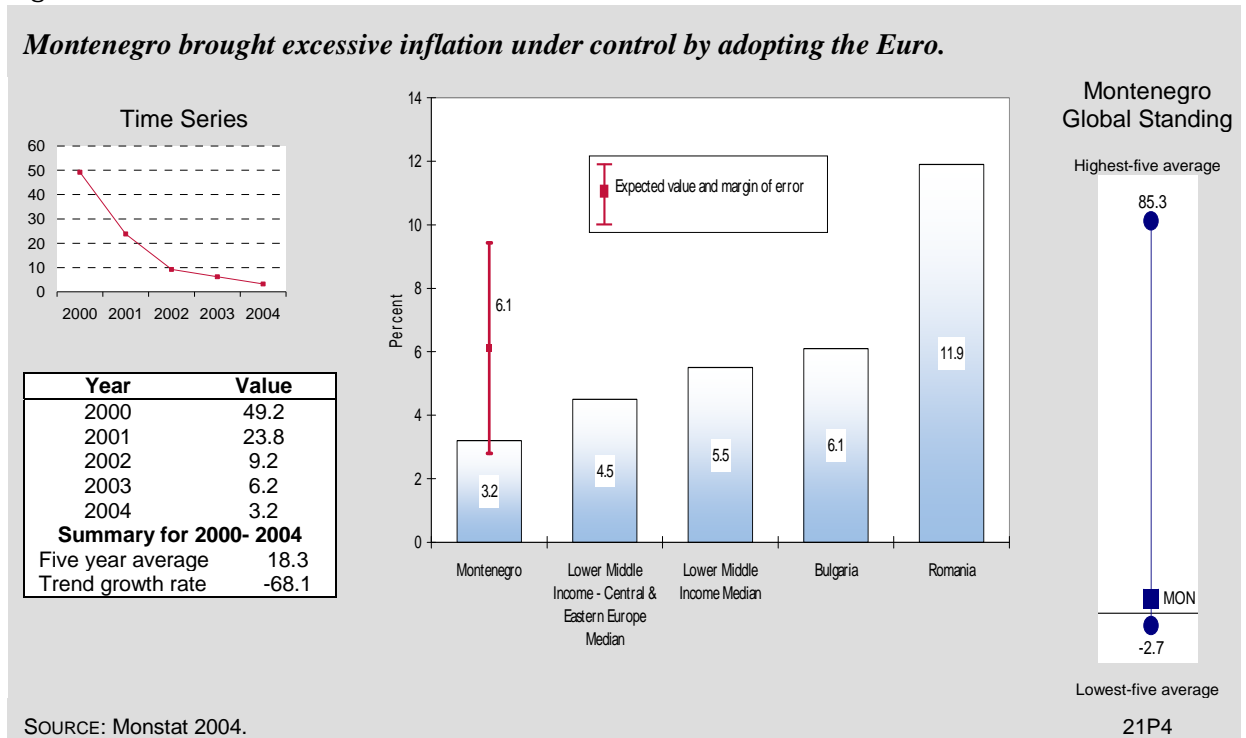
### IMF Program Status for Serbia and Montenegro

An extended arrangement for US\$ 951.1 million was approved in May 2002. The Executive Board of the IMF completed its fifth review of Serbia and Montenegro's economic performance in June 2005 and enabled the release of US\$182.9 to bring the program disbursement to US\$ 859.7 million.

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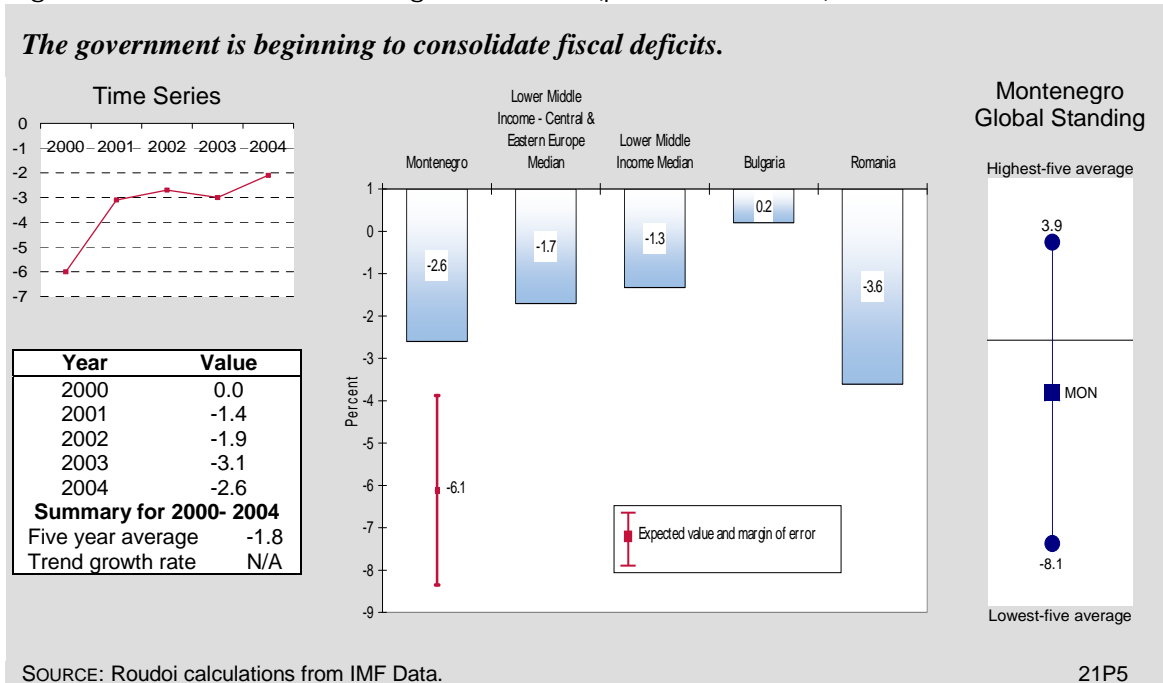
<sup>14</sup> The World Development Indicators 2005 database has new categories for government finance statistics. As a result, the database has fiscal data for very few developing countries, and group medians for these fiscal variables are no longer meaningful because of the limited sample size. The international benchmarking analysis for fiscal indicators is therefore based on data from WDI 2004.

Figure 3-1. Inflation Rate



The budget deficit net of grants decreased from 0.0 percent in 2000 to 2.6 percent in 2004 (Figure 3-2).

Figure 3-2. Government Budget Balance (percent of GDP)



Comparing the size of Montenegro's central government with that of other countries is challenging because data on Montenegro do not include the cost of social security. Thus, the government sector as a percentage of GDP is below the figures for the LMI CEEC, Bulgaria, and Romania. This is so even though government expenditures and revenues rose significantly between 2000 and 2004. When the social security system is taken into account, the size of the government sector is substantial and could eclipse that of any other LMI CEE country

The IMF has strongly recommended that the Montenegrin authorities pursue structural fiscal reforms. Specific recommendations from the two Article IV reports released in 2005 urged authorities to pursue more substantial cuts in public expenditures, to implement planned reductions in public employment, and not to implement proposed tax cuts. One of the IMF's key recommendations is that the government increase capital investment without raising expenditures.

In general, Montenegro's monetary and fiscal situation appears favorable. At the same time, the trend of rising expenditures is cause for concern. Montenegro may benefit from the assistance of international donor organizations in fiscal management.

## BUSINESS ENVIRONMENT

Institutionalized corruption poisons private sector development by impeding simple business transactions and handicapping businesses' ability to respond to the market. The Serbia and Montenegro's Corruption Perception Index score was 2.8 in 2005, a marginal improvement over its score of 2.7 in 2004.<sup>15</sup> Although Serbia and Montenegro's score here is only slightly below the LMI CEEC average, performance on an absolute scale is more important—and by that measure corruption remains unacceptably high (Figure 3-3). The same is true for the rule of law. The country's Rule of Law Index score of -0.7<sup>16</sup> shows the need for improvement both absolutely and relatively; it was below the LMI CEEC regional average of -0.3, as well as the scores of Bulgaria (0.1) and Romania (-0.2).

Montenegro has recently reduced the time and the number of procedures necessary to conduct regular business activities. Its *Doing Business* indicators are generally better than the LMI CEEC averages. Starting a business takes only 11 days in Montenegro versus an average of 39.5 days in LMI CEEC, 32 days in Bulgaria, and 28 days in Romania. Similarly, Montenegro is doing much better than comparator economies in number of procedures and time required to enforce a contract. For example, it takes 212 days to enforce a contract in Montenegro versus 362.5 days on average for LMI CEEC (Figure 3-4). Fourteen procedures are still required to register property, while Bulgaria requires 9 and Romania 8. The LMI CEEC average is 8 procedures.

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<sup>15</sup> The Corruption Perception Index scores corruption on a scale of 1 (worst) to 10 (best), with any score of 3 or below indicating "rampant corruption."

<sup>16</sup> The Rule of Law Index is a composite of various surveys on public confidence in the rule of law, the incidence of crime, the reliability of the judicial system, and the enforceability of contracts. The global mean is defined as zero, with associated individual scores defined as standard deviations above or below. The index ranges from -2.5 (for poor performance) to 2.5 (for excellent performance).

Figure 3-3. Corruption Perception Index

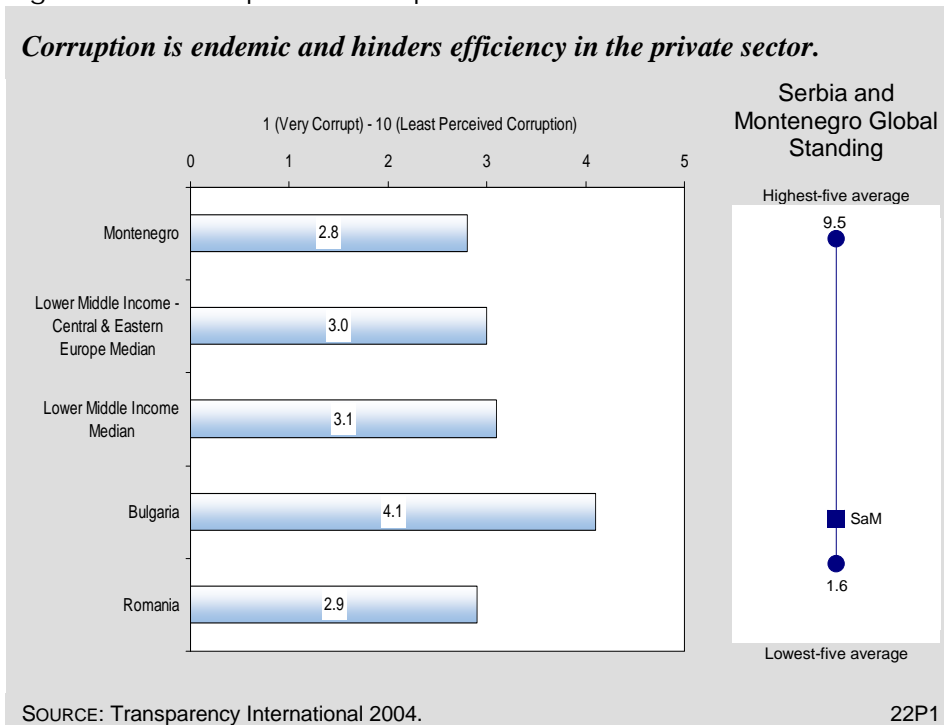
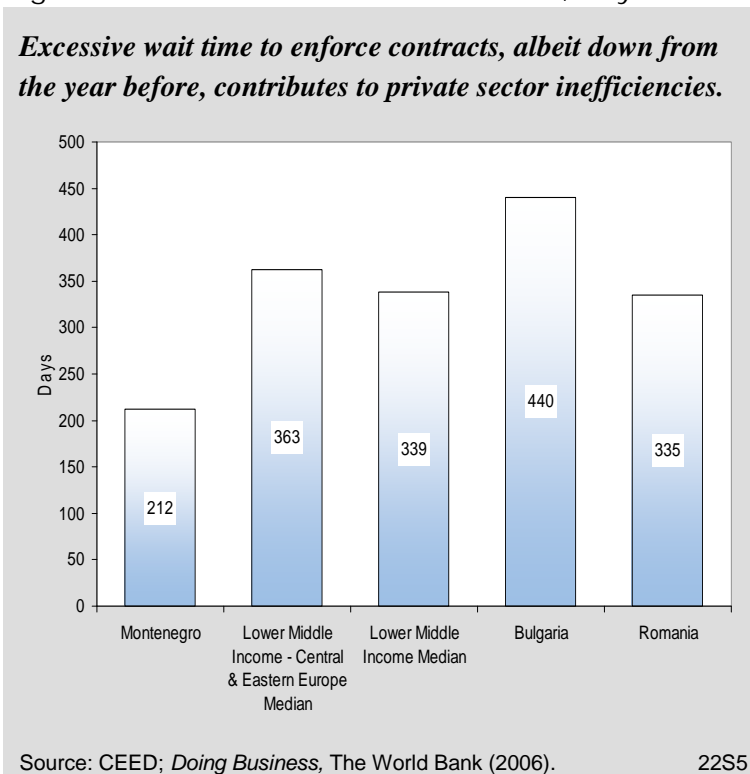


Figure 3-4. Time to Enforce a Contract, Days





While further reductions in the time and number of procedures necessary to effect business transactions are welcome, the primary focus needs to be legal and regulatory reforms that reduce corruption. This is essential if Montenegro is to take full advantage of its proximity to Western European markets and its competitive wage structure.

## FINANCIAL SECTOR

Montenegro's financial sector performance is mixed. Credit levels are low and other indicators reveal substantial market inefficiencies. Domestic credit to the private sector more than doubled from 2002 to 2004, reaching 10.9 percent of GDP, but still substantially below average levels in the LMI CEEC (24.6 percent) and Bulgaria (27.6 percent), though on par with Romania (9.6 percent). Montenegro also performs poorly on another measure of financial development, the ratio of money supply to GDP. This was 35.5 percent in 2004; in benchmark countries it was over 40 percent.

Inefficiencies in the financial sector may be a factor in the low levels of credit and monetization and may be indirectly related to low investment. It is impossible to calculate real interest rates using average interest rates because the National Bank of Montenegro does not publish an average interest rate series. When maximum rates are used as a proxy, the economy seems to be characterized by high interest rate spreads and risk premia. In 2004, the maximum interest rate on both short-term and long-term loans was 36 percent. At the same time, the maximum interest rate on demand deposits was 4.0 percent and the maximum rate on term deposits was 11.0 percent and 8.0 percent for deposits in euros and other currencies, respectively.

In contrast to money and credit measures, Montenegro does well on stock market capitalization. Market capitalization surged from 2.1 percent of GDP in 1999 to 18.0 percent of GDP in 2004, roughly twice the average level in the LMI countries of Central and Eastern Europe as well as those in Bulgaria and Romania. This finding is particularly impressive given that substantial additional privatization of state-owned enterprises is possible.

Finally, the legal rights of borrowers and lenders index, measuring the degree to which collateral and bankruptcy laws facilitate lending, is 5.0 in Serbia and Montenegro, in the middle of the scale. This is a little higher in Bulgaria (6.0) and in the LMI CEECs (5.5).

These findings suggest that international donor organizations might help the Montenegrin authorities identify the causes of financial market inefficiencies and suggest remedies that would allow for a reduction in the interest rate spread and a further increase in domestic credit. Support for the acceleration of bank privatization, which has been strongly encouraged by the IMF, may be also beneficial.

## EXTERNAL SECTOR

Fundamental changes in international commerce and finance, including lower transport costs, advances in telecommunications technology, and less onerous policy barriers, have fueled a rapid increase in global integration in the past 25 years. The international flow of goods and services, capital, technology, ideas, and people offers great opportunities for Montenegro to boost growth

and reduce poverty by stimulating productivity and efficiency, providing access to new markets and ideas, and expanding the range of consumer choice. Globalization also creates new challenges in the need for institutions, policies, and regulations to take full advantage of international markets, develop cost-effective approaches to cope with adjustment costs, and establish systems for monitoring and mitigating the associated risks. Montenegro has been rapidly integrating into the world economy over the past several years. While this has been generally beneficial, persistent external imbalances threaten the country's economic stability and future growth.

## **International Trade and the Current Account**

Soaring exports and rapidly rising wages have stimulated demand in Montenegro. Growth in the export of goods and services averaged 23.6 from 2000–2004, substantially higher than the growth in real GDP. The subsequent rise in domestic demand spurred a surge in imports rather than domestic supply, and exports and current transfers compensated little for this influx, leading to wide gaps in the current account.

Montenegro's trade in goods and services increased markedly following the end of military conflict in Yugoslavia in 1999. In 2004, trade accounted for 100.1 percent of GDP, but the average for 2000–2004 was a much lower 89.5. Both figures, however, are well above that found in the LMI CEEC (78.0 percent for 2004) and Romania (71.6 percent for 2003), though less than in Bulgaria (116.2 percent for 2003). Taking into account that Montenegro is a small economy, the regression benchmark regression predicts the indicator to have a value of 109.5 indicating that there is room for improvement in trade performance.

Montenegrin exports of goods and services soared by 176 percent over the 2000–2004 period. The export growth rate for 2004 was 34.8 percent, several times faster than in the comparator country groups, Bulgaria, and Romania (Figure 3-5). Exports of goods and services are concentrated in tourism and aluminum. In 2004, tourism accounted for 26.2 percent of exports and aluminum accounted for 25.4 percent and both sectors have been growing steadily and rapidly. High export concentration is to be expected in a small economy, but Montenegrin authorities still need to explore opportunities for export diversification.

Despite rapid export growth, imports still exceed exports substantially. In 2004, the current account deficit was 19.0 percent of GDP. A substantial portion of the trade deficit was covered with labor income, which increased 51.2 percent in 2004 and was 8.5 percent of GDP. In 2004, the trade deficit was 9.3 percent of GDP, an improvement with respect to the 24.5 percent gap in 2001, but higher than in comparator country groups, in Bulgaria, and in Romania (Figure 3-6). This current account deficit is not sustainable and is one of the most acute economic problems facing Montenegro.

The trade policy index for Montenegro alone is not available. The trade policy index for Serbia and Montenegro is low (4), though equal to that of comparable countries and country groups. Nonetheless, that the Montenegrin trade-to-GDP ratio is below predicted levels suggests that improvements in trade policy, combined with encouragement of domestic and foreign investment, might improve trade performance.

Figure 3-5. Growth in Exports of Goods and Services (percent)

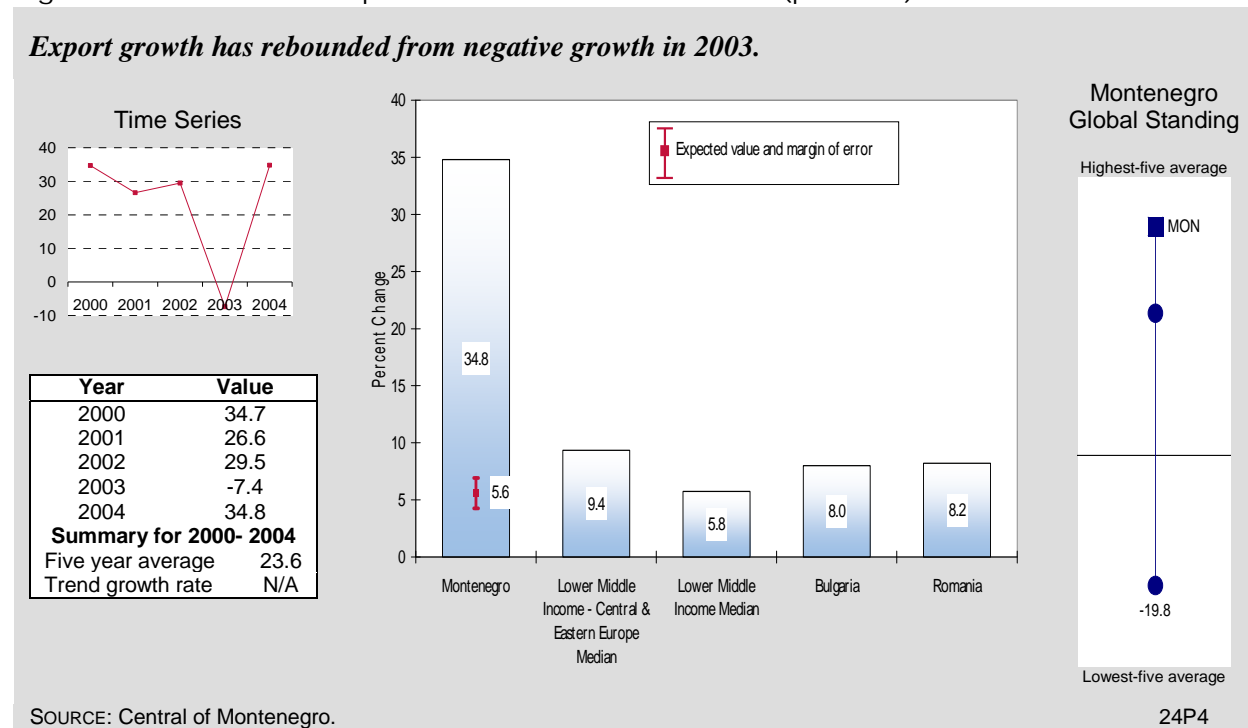
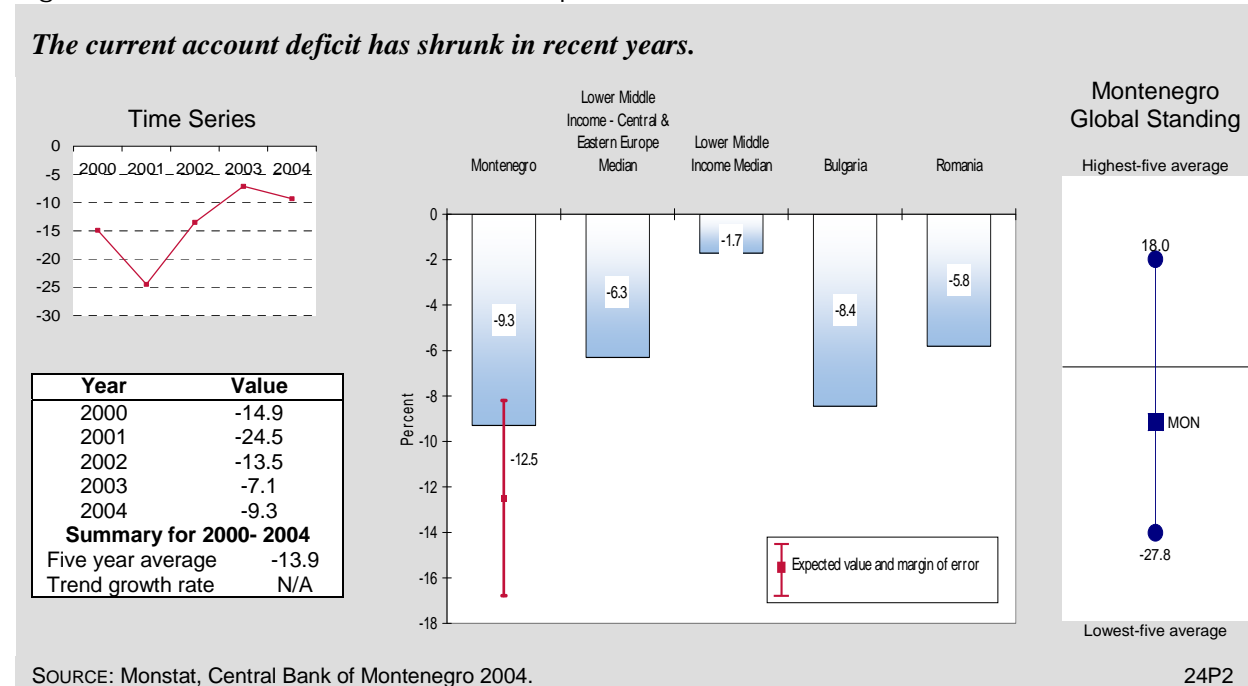


Figure 3-6. Current Account Balance, percent GDP



## International Financing and External Debt

Labor income is the most significant source of Montenegro's external financing, followed by private capital. Official transfers dropped in the most recent year for which data is available and are now a much less important means of financing the current account deficit; transfers declined from an average of 12.3 percent of GNI over the 2000–2002 period to 6.4 percent in 2003. This is still substantially above the 3.6 percent averaged by the LMI CEECs and the 2.1 and 1.1 percent found in Bulgaria and Romania, respectively, which suggests that this level may decline further.

Most foreign capital inflows are loans; inflows of foreign direct investment (FDI) accounted for only 3.3 percent of GDP in 2004. While this performance is marginally better than that in the LMI CEEC (3.1 percent) and Romania (3.2 percent), it is less than the 7.2 percent recorded by Bulgaria and is a decline from much higher levels recorded in 2001 and 2002. While these figures should be treated with caution as they can fluctuate substantially from year to year because of large individual transactions and the pace of privatization, the current inflow of FDI in Montenegro is insufficient given the relatively low levels of domestic investment and the large current account deficit. Montenegro needs to cut its current account deficit and diversify the sources of external financing, primarily by attracting FDI.

The present value of external debt and the debt service ratio are not available for Montenegro so no analysis is possible using standard indicators. However, as in many developing countries, external debt sustainability is a macroeconomic concern that bears watching.

## ECONOMIC INFRASTRUCTURE

A country's physical infrastructure—for transportation, communications, power, and information technology—is its backbone for strengthening competitiveness and expanding productive capacity. Data on the infrastructure of Serbia and Montenegro is not available from the *Global Competitiveness Report*, but USAID's recent Infrastructure Reform and Finance (IRF) Country Report presents the status of energy, water and sanitation, transport, and telecommunications infrastructure.<sup>17</sup>

The report indicates that Montenegro needs to improve its energy and transportation infrastructure, while the telecommunications infrastructure is relatively good. Poor access to district-level heating or natural gas has given rise to wide use of electricity for heating and a very efficient national heating system. Montenegro's transportation infrastructure, while quite good, is deteriorating. The report recommends enhancing energy efficiency and improving transportation by revitalizing ports (particularly the Port of Bar) and restoring roads that connect Montenegro to its neighbors.

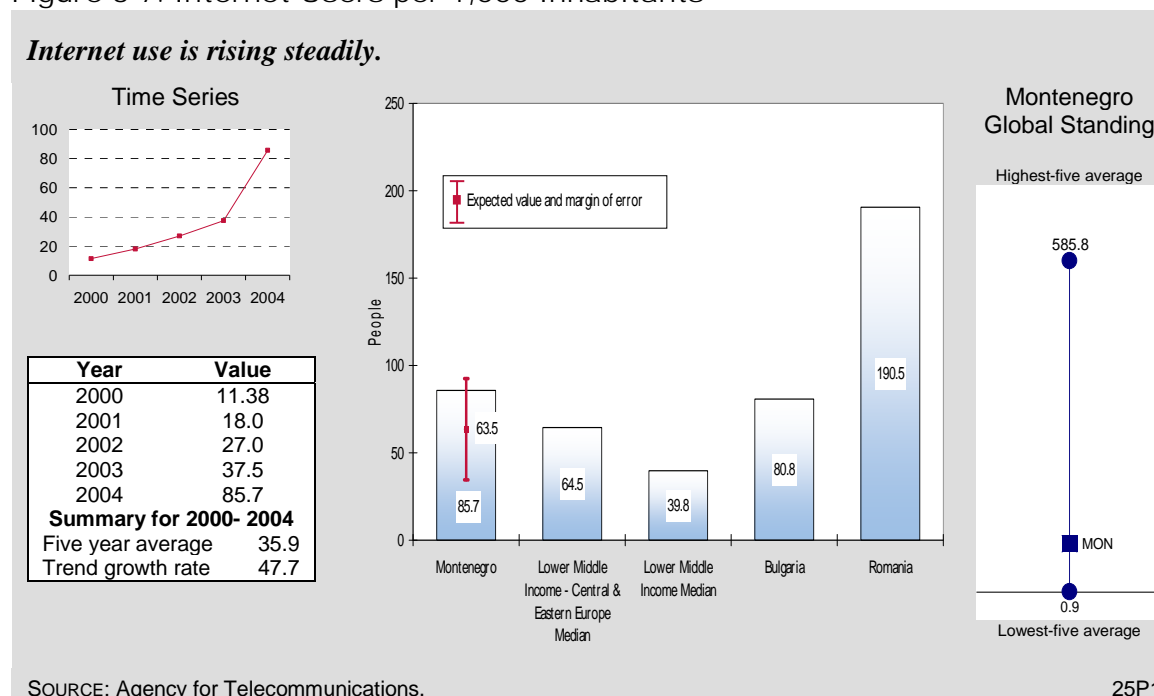
Good telecommunications infrastructure links markets globally and provides access to global markets. Montenegro does well on telecommunications indicators. Telephone density is above average—608 fixed line and mobile subscribers per 1,000 inhabitants, nearly double the

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<sup>17</sup> "Infrastructure Reform and Finance (IRF) Country Report: Serbia & Montenegro" Contract No. AFP-I-00-03-00035-00.

regression benchmark figure of 339, and above the 523.6 found in both Romania and the average for LMI CEEC, though well below the level of 846.9 in Bulgaria. Montenegro's Internet use has grown rapidly in the last five years, jumping from 11.4 to 85.7 users per 1,000 inhabitants in 2004. The 2004 figure compares favorably to the regression benchmark of 63.5 and 64.5 for LIM CEEC. This level of use is similar to Bulgaria (80.8) though well below Romania (190.5). The rapid growth of Internet use in Montenegro between 1999 and 2004 suggests that Internet technology may be an additional source of comparative advantage for Montenegro. Foreign assistance that can leverage Montenegro's technological capabilities can act as a catalyst for private sector growth (Figure 3-7).

Figure 3-7. Internet Users per 1,000 Inhabitants



## SCIENCE AND TECHNOLOGY

Science and technology are central to dynamic growth because technical knowledge is a driving force in productivity and competitiveness. Even for low-income countries, such as Montenegro, transformational development increasingly depends on acquiring technology from the global economy and adapting it to a country's level of development. A lack of capacity to acquire, adapt, and use technology prevents an economy from benefiting fully from globalization. Unfortunately, few international indicators of science and technology are available for judging performance in LMI developing countries. Hence, one must draw inferences from a very limited data set, proxies for other missing information.

Despite a low level of government expenditure on research and development, new technology is nascent in Serbia and Montenegro. Montenegro's expenditure on research and development is low—0.4 percent of GDP—but increasing from near zero several years ago. Serbia and Montenegro's research and development spending is roughly equivalent to that of Bulgaria (0.5

percent) and Romania (0.4 percent), as well as the average of LMI CEECs (0.4 percent). Residents filed 507 patent applications in 2002, well above the LMI CEEC average of 174, and between figures for Bulgaria (306) and Romania (1,486). The FDI and Technology Transfer Index score of 3.7 for Serbia and Montenegro indicates that FDI is bringing in some new technology, but less than in other LMI CEECs (4.4), Bulgaria (4.4), and Romania (5.1).<sup>18</sup> Investment promotion campaigns could augment Montenegro's limited success in attracting new technology by highlighting the country's educated workforce and proximity to industrial markets in Western Europe.

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<sup>18</sup> The FDI and Technology Transfer Index is on a scale from 1 (brings little new technology) to 7 (is an important source of new technology).

# 4. Pro-Poor Growth Environment

While rapid growth is the most powerful and dependable instrument for poverty reduction, the link between growth and poverty reduction is not mechanical. In some cases, income growth for poor households exceeds the overall rise in per capita income, while in other conditions growth benefits the non-poor far more than the poor. A pro-poor growth environment stems from policies and institutions that improve opportunities and capabilities for the poor, while reducing their vulnerabilities. Pro-poor growth is associated with improvements in primary health and education, the creation of jobs and income opportunities, the development of skills, micro-finance, agricultural development, and gender equality.<sup>19</sup> This section focuses on four of these issues: health; education; employment and the workforce; and agricultural development.

## HEALTH

The provision of basic health care is a major form of human capital investment and a significant determinant of growth and poverty reduction. Although health programs do not fall under the purview of the EGAT bureau, an understanding of health conditions can influence the design of EG interventions.

Montenegro has excellent performance for many indicators pertaining to public health. Life expectancy at birth is 73.1, above the statistically predicted figure of 70.4 (Figure 4-1). It also has a low maternal mortality rate of 22.7 per 100,000 births (2004), comparable to rates in many OECD countries, well below rates predicted by the benchmark regression (64.0), and below the regional average of 40.5 (Figure 4-2). HIV prevalence, at 0.2 percent, is in line with the 0.1 percent found in the LMI CEECs, Bulgaria, and Romania. Montenegro's good performance is in part attributable to expenditures of 7.7 percent of GDP on public health, well above the 4.4 percent average expenditure in LMI CEECs, 4.5 percent in Bulgaria, and 4.2 percent in Romania.

Serbia and Montenegro fell short in access to improved sanitation, 87.0 percent, and potable water, 93.0 percent, in 2002. These figures are similar to regional averages but could be improved on an absolute scale. Water quality is a mounting problem in Montenegro. According to the IRF report, potable water is of poor quality, water shortages occur in the summer, and water treatment and sewerage (in some rural areas) are insufficient.

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<sup>19</sup> For purposes of economic growth programming, the template does not cover emergency relief.

Figure 4-1. Life Expectancy at Birth

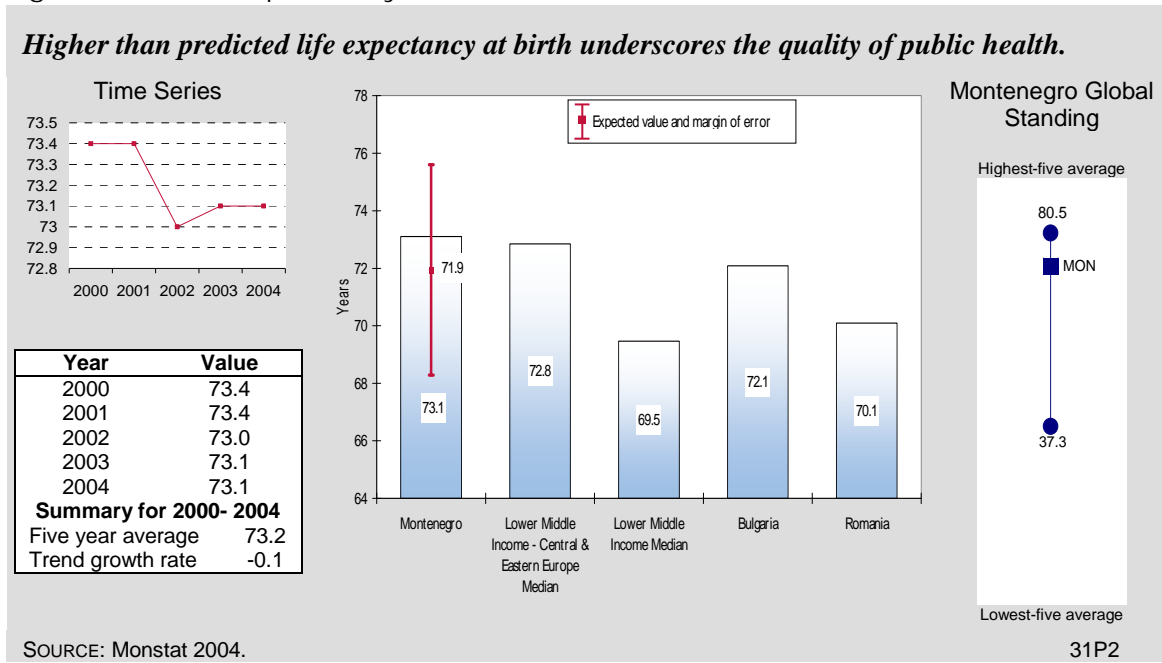
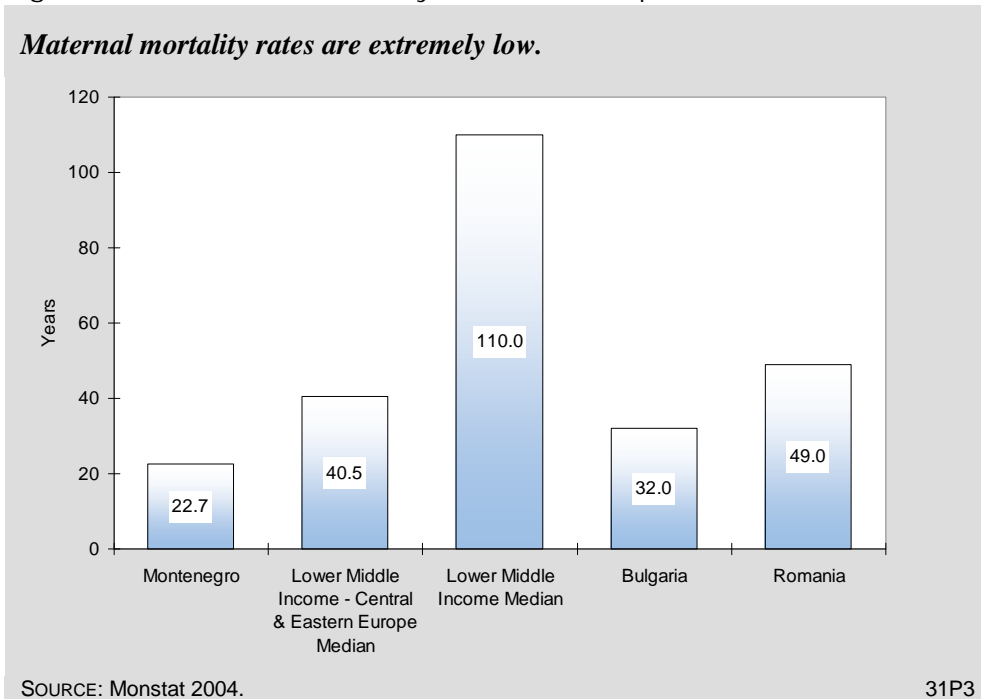


Figure 4-2. Maternal Mortality Rate, Deaths per 100,000 Live Births



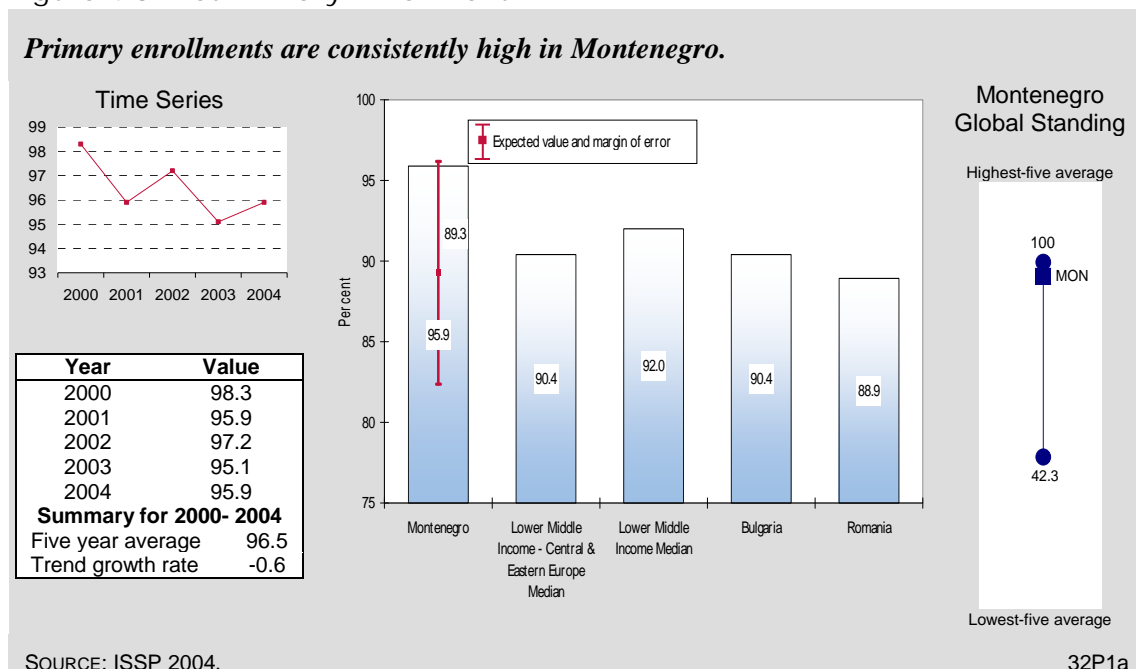
## EDUCATION

One of Montenegro's most attractive economic assets is widespread attainment of basic education. Like many Central and Eastern European nations, Montenegro enjoys a high youth



literacy rate—99.4 percent. Net primary enrollment rates are also high. In 2004, net primary enrollment was 95.9 percent, significantly higher than the LMI CEEC average of 90.4 as well as rates in Bulgaria and Romania (Figure 4-3). The net primary enrollment rates for females were slightly higher than those of males. While it appears that Montenegrins by and large get a good head start, secondary school education is lagging—only 67.3 percent of secondary school aged Montenegrins attended school in 2003 according to the Institute for Strategic Studies and Prognoses (ISSP). Programming that supports secondary education, particularly in smaller cities and rural areas, would augment the workforce’s productive capacity and address urban-rural differences in poverty. Primary enrollments are consistently high in Montenegro.

Figure 4-3. Net Primary Enrollment



## EMPLOYMENT AND WORKFORCE

The unemployment rate fell from 32.7 percent in 2000 to 22.6 percent in 2004 and the labor force decreased at an annual average of 1.2 percent over the same period, roughly 26,000 workers. Given low economic growth rates, this likely reflects an absolute decline in the labor force rather than in unemployed people leaving the workforce.

Productive employment serves a society by providing livelihoods and insulating social cohesion. Lack of employment opportunities for large swathes of Montenegro’s labor force is a serious problem. The unemployment rate dropped substantially from 2000 to 2004, standing at 22.6 percent, but is still approximately 7 percentage points above the regional average (Figure 4-4). This rate is particularly high given that much of the drop is explained by declining and now low rates of labor force participation in Montenegro. Early retirements, post-transition, and aging populations have combined to produce lower rates generally. In 2004, the total labor force participation rate was 60.2 (for males 69.1 and for females, 51.5). This rate is significantly lower

than that of the LMI CEEC mean, Bulgaria and Romania, all of which near 70 percent or higher. Montenegro's rate was comparable to these levels as recently as 2000—71.5 percent. The 11.3 percentage point decrease is attributable to a precipitous decline in female participation rates, though this rate was erratic between 2000 and 2004, suggesting a “last hired, first fired” syndrome for women in conjunction with the ebb and flow of economic conditions (Figures 4-5 and 4-6).

Figure 4-4. Unemployment Rate

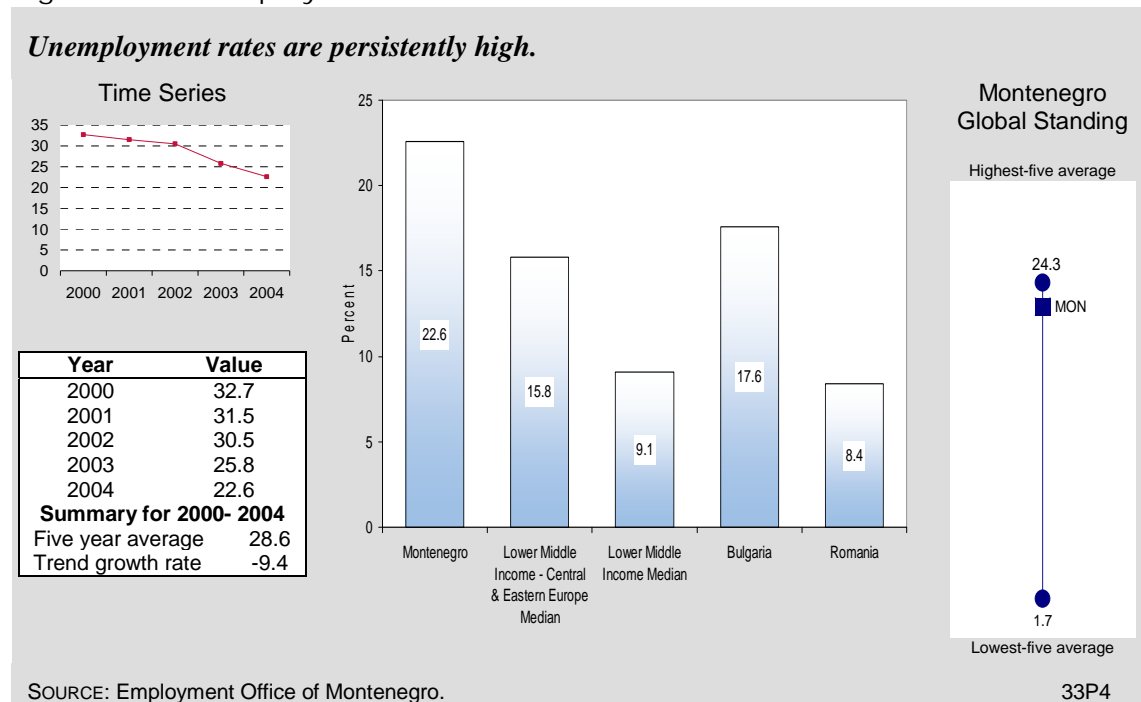


Figure 4-5. Female Labor Force Participation Rate

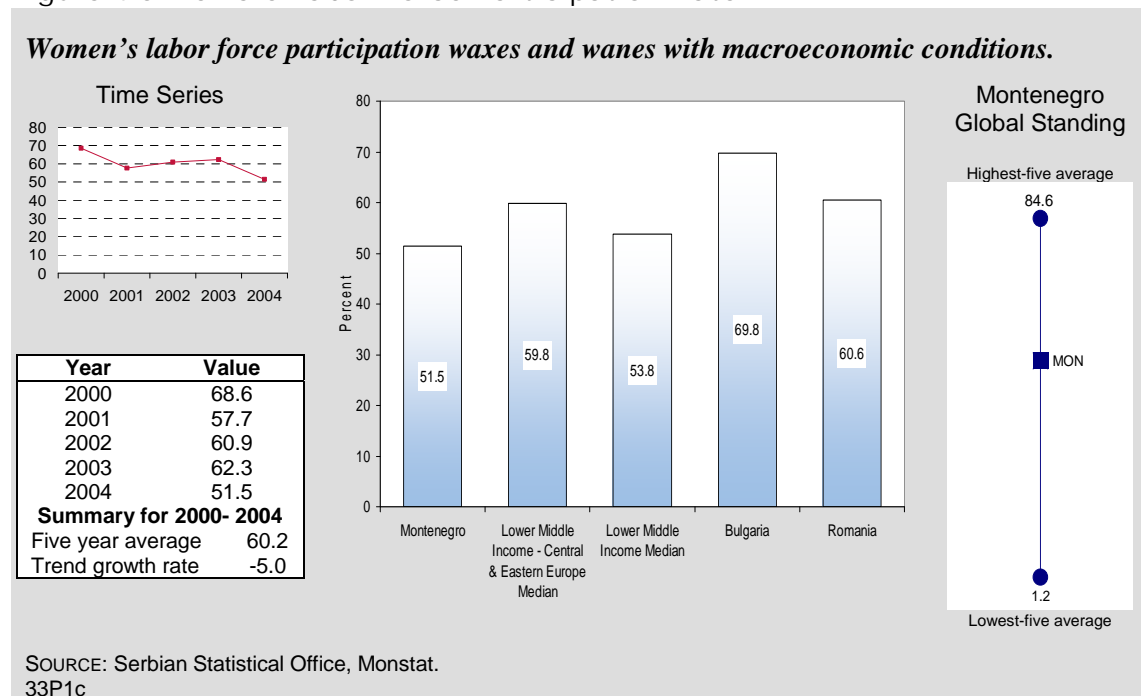
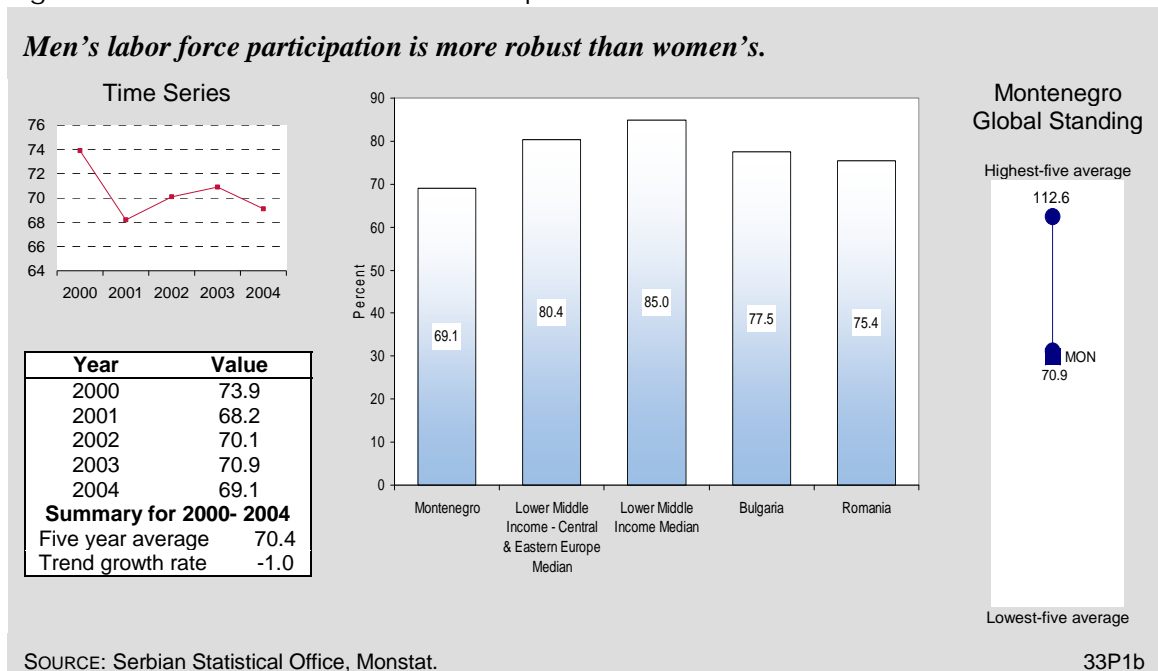


Figure 4-6. Male Labor Force Participation Rate



High unemployment rates and the lack of employment opportunities appear to be associated with slow growth, structural obstacles to investment and job creation, and lingering post-conflict effects. In addition, Serbia and Montenegro have a relatively rigid labor market, scoring 49.0 on the Rigidity of Employment Index, which gauges the liquidity of the labor market by determining the ease of hiring, firing, and requesting work hours beyond the standard work week. The score in LMI CEEC was on average 43.5<sup>20</sup> (Figure 4-7). Programs that emphasize job creation, especially those that target opportunities for women, will be helpful in remedying Montenegro's unemployment woes and increasing labor force participation rates.

## AGRICULTURE

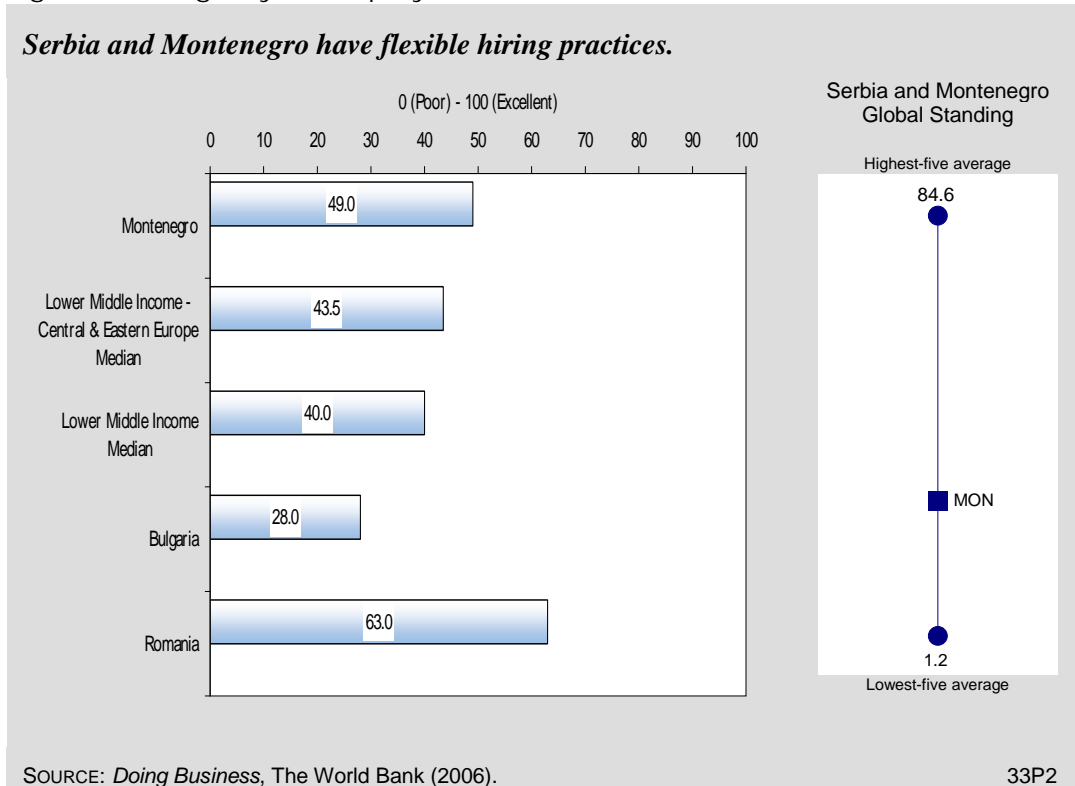
Agricultural performance in Serbia and Montenegro meets domestic demand and is a source of export income. Agriculture accounts for about 20 percent of exports and output. The cereal yield is robust and consistent with regional averages: an average of 3,485 kilograms per hectare annually, compared to the regional average of 3,143 kilograms per hectare, and 3,543 in Bulgaria, though a little below yields in Romania (3,899). The livestock production index (94.5 in 2004, with 1999–2001 as the base) for Serbia and Montenegro is slightly worse than the average for LMI CEEC (105.0) and than Romania (119.1), but on par with Bulgaria (95.9). The Agricultural Policy Costs Index<sup>21</sup> scores Montenegro 3.5. This median score reveals that agricultural policy is not excessively burdensome. Since agriculture accounts for a substantial share of industry in

<sup>20</sup> On a scale of 1 (minimum rigidity) to 100 (maximum rigidity).

<sup>21</sup> ISSP calculation using World Economic Forum Methodology. The Agricultural Policy Costs Index ranges from 1 (excessively burdensome) to 7 (balances all economic agents' interests).

Montenegro, assistance in bringing processed agricultural goods to international standards could be an effective way to add value to the sector.

Figure 4-7. Rigidity of Employment Index





# Appendix

## CRITERIA FOR SELECTING INDICATORS

The scope of the paper is constrained by the availability of suitable indicators. Indicators have been chosen to balance the need for broad coverage and diagnostic value, on the one hand, and the need for brevity and clarity, on the other. The analysis covers 15 EG-related topics, and just more than 100 variables. For the sake of brevity, the text highlights issues for which the “dashboard lights” appear to be signaling problems, which suggest possible priorities for USAID intervention. The following table lists all indicators examined for this report. A separate Data Supplement contains the complete data set for Montenegro, including data for the benchmark comparisons, and technical notes for every indicator.

For each topic, the analysis begins with a screening of *primary performance indicators*. These “level I” indicators are selected to answer the question: Is the country performing well or not in this area? The primary indicators include descriptive variables such as per capita income, the poverty head count, and the age dependency rate.

In areas of weak performance, the analysis proceeds to review a limited set of *diagnostic supporting indicators*. These “level II” indicators provide more details about the problem or shed light on *why* the primary indicators may be weak. For example, if economic growth is poor, one can examine data on investment and productivity as diagnostic indicators. If a country performs poorly on educational achievement, as measured by the youth literacy rate, one can examine determinants such as expenditure on primary education and the pupil-teacher ratio.<sup>1</sup>

The indicators have been selected on the basis of several criteria. Each one must be accessible through USAID’s Economic and Social Database or convenient public sources, particularly on the Internet. The indicators must be available for a large number of countries, including most USAID client states. The data must be sufficiently timely to support an assessment of country performance that is suitable for strategic planning. Data quality is another consideration. For example, subjective survey responses are used only when actual measurements are not available. Aside from a few descriptive variables, the indicators must also be useful for diagnostic purposes. Preference is given to measures that are widely used, such as Millennium Development Goal indicators, or evaluation data used by the Millennium Challenge Corporation. Finally, an effort has been made to minimize redundancy. If different indicators provide similar information,

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<sup>1</sup> Deeper analysis of the topic using more detailed data (level III) is beyond the scope of papers in this series.

preference is given to one that is simplest to understand. For example, both the Gini coefficient and the share of income accruing to the poorest 20 percent of households can be used to gauge income inequality. We use the income share because it is simpler, and more sensitive to changes.

## BENCHMARKING METHODOLOGY

Comparative benchmarking is the main tool used to evaluate each indicator. The analysis draws on several criteria, rather than a single mechanical rule. The starting point is a comparison of performance in Montenegro relative to the average for countries in the same income group and region—in this case, lower middle-income (LMI) Central and Eastern European countries (LMI-CEEC).<sup>2</sup> For added perspective, three other comparisons are examined: (1) the global average for this income group; (2) respective values for two comparator countries selected by the Serbia and Montenegro mission (Bulgaria and Romania); and (3) the average for the five best and five worst performing countries globally. Most comparisons are framed in terms of values for the latest year of data from available sources. Five-year trends are also taken into account if they shed light on the performance assessment.<sup>3</sup>

For selected variables, a second source of benchmark values uses statistical regression analysis to establish an expected value for the indicator, controlling for income and regional effects.<sup>4</sup> This approach has three advantages. First, the benchmark is customized to Montenegro's level of income. Second, the comparison does not depend on the exact choice of reference group. Third, the methodology allows one to quantify the margin of error and establish a "normal band" for a country with Montenegro's characteristics. An observed value falling outside this band on the side of poor performance signals a serious problem.<sup>5</sup>

Finally, where relevant, Montenegro's performance is weighed against absolute standards. For example, the corruption perception index for Serbia and Montenegro was 2.7 in 2004. Regardless of the regional comparisons or regression results, this is a sign of serious problems in economic governance.

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<sup>2</sup> Income groups as defined by the World Bank for 2004. For this study, the average is defined in terms of the mean; future studies will use the median instead, because the values are not distorted by outliers.

<sup>3</sup> The five-year trends are computed by fitting a log-linear regression line through the data points. The alternative of computing average growth from the end points produces aberrant results when one or both of those points diverges from the underlying trend.

<sup>4</sup> This is a cross-sectional OLS regression using data for all developing countries. For any indicator,  $Y$ , the regression equation takes the form:  $Y$  (or  $\ln Y$ , as relevant) =  $a + b * \ln \text{PCI} + c * \text{Region} + \text{error}$ —where PCI is per capita income in PPP\$, and Region is a set of 0-1 dummy variables indicating the region in which each country is located. Once estimates are obtained for the parameters  $a$ ,  $b$  and  $c$ , the predicted value for Montenegro is computed by plugging in Montenegro-specific values for PCI and Region. Where applicable, the regression also controls for population size and petroleum exports (as a percentage of GDP).

<sup>5</sup> This report uses a margin of error of 0.66 times the standard error of estimate (adjusted for heteroskedasticity, where appropriate). With this value, 25% of the observations should fall outside the normal range on the side of poor performance (and 25% on the side of good performance). Some regressions produce a very large standard error, giving a "normal band" that is too wide to provide a discerning test of good or bad performance.



## INDICATORS

	Level	MDG/MCA/EcGov <sup>a</sup>	CAS Indicator Code
<b>OVERVIEW OF THE ECONOMY</b>			
<b>Growth Performance</b>			
Per capita GDP, \$PPP	I		11P1
Per capita GDP, current US\$	I		11P2
Real GDP growth	I		11P3
Growth of labor productivity	II		11S1
Investment Productivity - Incremental Capital-Output Ratio (ICOR)	II		11S2
Gross fixed investment, percent GDP	II		11S3
Gross fixed private investment, percent GDP	II		11S4
<b>Poverty and Inequality</b>			
Human poverty index	I		12P1
Income-share, poorest 20 percent	I		12P2
Population living on less than \$1 PPP per day	I	MDG	12P3
Poverty headcount, by national poverty line	I	MDG	12P4
PRSP Status	I	EcGov	12P5
Population below minimum dietary energy consumption	II	MDG	12S1
Poverty gap at \$1 PPP a day	II		12S2
<b>Economic Structure</b>			
Labor force structure	I		13P1
Output structure	I		13P2
<b>Demography and Environment</b>			
Adult literacy rate	I		14P1
Age dependency rate	I		14P2
Environmental sustainable index	I		14P3
Population size and growth	I		14P4
Urbanization rate	I		14P5
<b>Gender</b>			
Adult literacy rate, ratio of male to female	I	MDG	15P1
Gross enrollment rate, all levels, ratio of male to female,	I	MDG	15P2
Life expectancy at birth, ratio of male to female	I		15P3
<b>PRIVATE SECTOR ENABLING ENVIRONMENT</b>			
<b>Fiscal and Monetary Policy</b>			
Govt. expenditure, percent GDP	I	EcGov	21P1
Govt. revenue, percent GDP	I	EcGov	21P2
Growth in the money supply	I	EcGov	21P3
Inflation rate	I	MCA	21P4
Overall govt. budget balance, including grants, percent GDP	I	EcGov	21P5
Composition of govt. expenditure	II		21S1
Composition of govt. revenue	II		21S2
Composition of money supply growth	II		21S3

	Level	MDG/MCA/EcGov <sup>a</sup>	CAS Indicator Code
<b>Business Environment</b>			
Corruption perception index	I	EcGov	22P1
Doing business composite index	I	EcGov	22P2
Rule of law index	I	MCA / EcGov	22P3
Cost of starting a business, percent GNI per capita	II	EcGov	22S1
Procedures to enforce contract	II	EcGov	22S2
Procedures to register property	II	EcGov	22S3
Procedures to start a business	II	EcGov	22S4
Time to enforce a contract	II	EcGov	22S5
Time to register property	II	EcGov	22S6
Time to start a business	II	EcGov	22S7
<b>Financial Sector</b>			
Domestic credit to private sector, percent GDP	I		23P1
Interest rate spread	I		23P2
Money supply, percent GDP	I		23P3
Stock market capitalization rate, percent of GDP	I		23P4
Cost to create collateral	II		23S1
Country credit rating	II	MCA	23S2
Legal rights of borrowers and lenders index	II		23S3
Real Interest rate	I		23S4
<b>External Sector</b>			
Aid , percent GNI	I		24P1
Current account balance, percent GDP	I		24P2
Debt service ratio, percent exports	I	MDG	24P3
Export growth of goods and services	I		24P4
Foreign direct investment, percent GDP	I		24P5
Gross international reserves, months of imports	I	EcGov	24P6
Gross Private capital inflows, percent GDP	I		24P7
Present value of debt, percent GNI	I		24P8
Remittance receipts, percent exports	I		24P9
Trade, percent GDP	I		24P10
Concentration of Exports	II		24S1
Inward FDI Potential Index	II		24S2
Net barter terms of trade	II		24S3
Real effective exchange rate (REER)	II	EcGov	24S4
Structure of merchandise exports	II		24S5
Trade policy index	II	MCA / EcGov	24S6
<b>Economic Infrastructure</b>			
Internet users per 1000 people	I	MDG	25P1
Overall infrastructure quality	I	EcGov	25P2
Telephone density, fixed line and mobile	I	MDG	25P3
Quality of infrastructure – railroads, ports, air Transport, and electricity	II		25S1
Telephone cost, average local call	II		25S2

	Level	MDG/MCA/EcGov <sup>a</sup>	CAS Indicator Code
<b>Science and Technology</b>			
Expenditure for R&D, percent GNI	I		26P1
FDI and technology transfer index	I		26P2
Patent applications filed by residents	I		26P3
<b>PRO-POOR GROWTH ENVIRONMENT</b>			
<b>Health</b>			
HIV prevalence	I		31P1
Life expectancy at birth	I		31P2
Maternal mortality rate	I	MDG	31P3
Access to improved sanitation	II	MDG	31S1
Access to improved water source	II	MDG	31S2
Births attended by skilled health personnel	II	MDG	31S3
Child immunization rate	II		31S4
Prevalence of child malnutrition (weight for age)	II		31S5
Public health expenditure, percent GDP	II	EcGov	31S6
<b>Education</b>			
Net primary enrollment rate	I	MDG	32P1
Persistence in school to grade 5	I	MDG	32P2
Youth literacy rate	I		32P3
Education expenditure, primary, percent GDP	II	MCA/ EcGov	32S1
Expenditure per student, percent GDP per capita – primary, secondary, and tertiary	II	EcGov	32S2
Pupil-teacher ratio, primary school	II		32S3
<b>Employment and Workforce</b>			
Labor force participation rate, females, males, total	I		33P1
Rigidity of employment index	I	EcGov	33P2
Size and growth of the labor force	I		33P3
Unemployment rate	I		33P4
<b>Agriculture</b>			
Agriculture value added per worker	I		34P1
Cereal yield	I		34P2
Growth in agricultural value-added	I		34P3
Agricultural policy costs index	II	EcGov	34S1
Crop production index	II		34S2
Livestock production index	II		34S3

<sup>a</sup> Level I = primary performance indicators, Level II = supporting diagnostic indicators

MDG = Millennium Development Goal indicator

MCA = Millennium Challenge Account indicator

EcGov = Major indicators of *Economic Governance*, which is defined in USAID's *Strategic Management Interim Guidance* to include "microeconomic and macroeconomic policy and institutional frameworks and operations for economic stability, efficiency, and growth." The term therefore encompasses indicators of fiscal and monetary management, trade and exchange rate policy, legal and regulatory systems affecting the business environment, infrastructure quality, and budget allocations.



**USAID**  
FROM THE AMERICAN PEOPLE

# Montenegro

## Economic Performance Assessment

### Data Supplement



**March 2006**

This publication was produced by Nathan Associates Inc. for review by the United States Agency for International Development.

Sponsored by the Economic Growth office of USAID's Bureau of Economic Growth, Agriculture and Trade (EGAT), and implemented by Nathan Associates Inc. under Contract No. PCE-I-00-00-00013-00, Task Order 004, the Country Analytical Support (CAS) Project, 2005-2006, has developed a standard methodology for producing analytical reports that provide a clear and concise evaluation of economic growth performance in certain countries. These reports are tailored to meet the needs of USAID missions and regional bureaus for country-specific analysis. Each report contains

- A synthesis of data drawn from numerous sources, including World Bank publications and other international data sets used by USAID for economic growth analysis, as well as accessible host-country data sources;
- International benchmarking to compare country performance to similar countries and groups of countries;
- An easy-to-read analytic narrative that highlights areas in which a country's performance is particularly strong or weak, thereby assisting in the identification of future programming priorities.

Under the CAS Project, Nathan Associates will also respond to mission requests for in-depth sector studies to examine more thoroughly particular issues identified by the data analysis in these country reports.

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# Note

Though most international sources treat Serbia and Montenegro as a unit, it is important to recognize the heterogeneity of these two states within a state when designing policies that support economic growth and poverty reduction. This study therefore focuses on Montenegro independent of Serbia (data presented do not include Kosovo). Where possible, we use data for Montenegro or disaggregate the data for Montenegro from data on Serbia and Montenegro. Figures for Montenegro are not derived from standard sources for each indicator as listed in the technical notes. For this report, the data are also from the International Monetary Fund (IMF), Monstat, the Ministry of Education, the Ministry of Finance, the Central Bank of Montenegro, the Center for Enterprise and Economic Development (CEED), the Institute for Strategic Studies and Prognoses (ISSP), the Agency for Telecommunications, the Parliament of Montenegro, and the Statistical Office of Serbia and Montenegro. Details on indicator sources are in the data supplement. The authors would like to acknowledge the substantial contribution of the ISSP, based in Montenegro, in compiling data.

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Growth Performance							
	Per capita GDP, in purchasing power parity Dollars	Per capita GDP, in current U.S. Dollars	Real GDP growth	Growth of labor productivity	Investment productivity - incremental capital-output ratio (ICOR)	Share of gross fixed investment in GDP, in current prices	Share of gross fixed private investment in GDP, current prices
Indicator Number	11P1	11P2	11P3	11S1	11S2	11S3	11S4
<i>Montenegro Data (SaM where indicated)</i>	<b>SaM</b>						
<i>Source (Where different from technical notes)</i>		ISSP	Monstat/ Secretariat for Development	ISSP		Monstat	
<i>Latest Year (T)</i>	2004	2004	2004	2003	.	2002	.
Value Year T	4,857.8	3,091.2	3.7	4.7	.	15.3	.
Value Year T-1	4,551.6	2,621.9	2.3	2.6	.	18.2	.
Value Year T-2	4,344.7	1,994.3	1.7	-8.0	.	17.6	.
Value Year T-3	4,105.2	1,813.4	-0.2	11.6	.	.	.
Value Year T-4	3,795.5	1,541.5	3.1	.	.	.	.
Average Value, 5 year	4,330.9	2,212.5	2.1	2.7	.	.	.
Growth Trend	6.1	17.6	.	.	.	.	.
<i>Benchmark Data</i>							
Regression Benchmark	.	.	3.8	.	.	.	.
Lower Bound	.	.	2.4	.	.	.	.
Upper Bound	.	.	5.1	.	.	.	.
<i>Latest Year Bulgaria</i>	2004	2004	2004	2003	2003	2003	.
Bulgaria Value Latest Year	8,499.8	3,074.0	5.7	4.7	4.1	19.6	.
<i>Latest Year Romania</i>	2004	2004	2004	2003	2003	2003	.
Romania Value Latest Year	7,641.5	3,206.6	8.3	4.7	7.3	22.5	.
Lower Middle Income CEEC Avg.	7,370.2	2,684.4	5.8	4.4	5.7	19.7	.
Lower Middle Income Avg.	5,572.6	2,129.9	5.1	2.1	5.6	22.1	.
High Five Avg.	42,808.7	52,714.7	21.2	14.1	70.2	48.6	.
Low Five Avg.	664.0	121.5	-2.9	-13.3	-302.9	7.7	.



Poverty and Inequality							
	Human poverty index	Income share held by poorest 20%	Population living on less than \$1 PPP per day, % population	Poverty headcount, by national poverty line	PRSP Status	Population (%) below minimum dietary energy consumption	Poverty gap at \$1 PPP a day
Indicator Number	12P1	12P2	12P3	12P4	12P5	12S1	12S2
<i>Montenegro Data (SaM where indicated)</i>							
<i>Source (Where different from technical notes)</i>							
<i>Latest Year (T)</i>	.	.	.	2003	2003	.	.
Value Year T	.	.	.	12.2	YES	.	.
Value Year T-1	.	.	.	.	.	.	.
Value Year T-2	.	.	.	.	.	.	.
Value Year T-3	.	.	.	.	.	.	.
Value Year T-4	.	.	.	.	.	.	.
Average Value, 5 year	.	.	.	.	.	.	.
Growth Trend	.	.	.	.	.	.	.
<i>Benchmark Data</i>							
Regression Benchmark	14.5	7.9	4.9	18.3	.	.	.
Lower Bound	8.8	7.1	-2.8	8.3	.	.	.
Upper Bound	20.1	8.7	12.6	28.2	.	.	.
<i>Latest Year Bulgaria</i>	.	2001	2001	2001	.	2001	2001
Bulgaria Value Latest Year	.	6.7	4.7	12.8	.	16.0	1.4
<i>Latest Year Romania</i>	.	2002	2002	.	.	.	2002
Romania Value Latest Year	.	7.9	2.0	.	.	.	0.5
Lower Middle Income CEEC Avg.	12.0	8.5	2.0	22.5	.	8.0	0.5
Lower Middle Income Avg.	14.7	8.2	4.2	49.0	.	11.0	1.2
High Five Avg.	58.7	8.7	33.5	41.2	.	66.0	11.8
Low Five Avg.	3.9	5.9	2.0	37.1	.	3.0	0.5

Indicator Number	Economic Structure						Demography and Environment					
	Labor force structure (employment in agriculture, % total employment)	Labor force structure (employment in industry, % total employment)	Labor force structure (employment in services, % total employment)	Output structure (agriculture, value added, % GDP)	Output structure (industry, value added, % GDP)	Output structure (services, etc., value added, % GDP)	Adult literacy rate	Age dependency rate	Environmental sustainability index	Population size and growth (size millions)	Population size and growth (growth)	Urbanization rate
	13P1a	13P1b	13P1c	13P2a	13P2b	13P2c	14P1	14P2	14P3	14P4a	14P4b	14P5
<i>Montenegro Data (SaM where indicated)</i>								<b>SaM</b>				<b>SaM</b>
<i>Source (Where different from technical notes)</i>	Monstat	Monstat	Monstat	Monstat	Monstat	Monstat	Monstat / Census			Monstat / ISSP	Monstat / ISSP	
<i>Latest Year (T)</i>	2004	2004	2004	2002	2002	2002	2004	2003	.	2004	2004	2003
Value Year T	2.6	32.1	65.3	11.4	18.8	69.8	97.5	0.51	.	0.62	0.4	52.0
Value Year T-1	2.8	34.6	62.6	11.2	19.6	69.2	97.5	0.51	.	0.62	0.19	51.9
Value Year T-2	3.1	35.9	60.9	11.8	18.1	70.1	97.5	0.51	.	0.62	0.37	51.7
Value Year T-3	3.3	36.6	60.1	.	.	.	97.5	0.51	.	0.61	0.37	51.6
Value Year T-4	4.2	44.8	51.0	.	.	.	97.5	0.51	.	0.61	.	51.5
Average Value, 5 year	3.2	36.8	60.0	11.5	18.8	69.7	97.5	0.51	.	0.6	.	51.8
Growth Trend	-11.2	-7.2	5.4	.	.	.	.	.	.	0.3	.	0.3
<b>Benchmark Data</b>												
Regression Benchmark	.	.	.	.	.	.	.	.	52.6	.	.	54.4
Lower Bound	.	.	.	.	.	.	.	.	48.9	.	.	45.1
Upper Bound	.	.	.	.	.	.	.	.	56.3	.	.	63.6
<i>Latest Year Bulgaria</i>	2001	2001	2001	2003	2003	2003	2002	2003	2002	2003	2003	2003
Bulgaria Value Latest Year	26.3	27.6	46.0	11.7	30.7	57.5	98.6	0.44	49.3	7.8	-0.6	67.5
<i>Latest Year Romania</i>	2001	2001	2001	2003	2003	2003	2002	2003	2002	2003	2003	2003
Romania Value Latest Year	42.3	26.2	31.5	11.9	36.1	52.1	97.3	0.44	50.0	21.7	-0.3	55.7
Lower Middle Income CEEC Avg.	32.6	26.2	43.1	12.8	30.6	56.7	97.9	0.46	50.4	6.0	0.6	57.6
Lower Middle Income Avg.	25.3	22.0	50.3	12.2	30.4	55.8	87.8	0.58	49.5	8.2	1.4	57.8
High Five Avg.	41.5	37.1	72.8	56.0	66.2	77.7	99.7	1.03	71.3	607.0	4.6	100.0
Low Five Avg.	0.3	12.9	36.0	0.8	12.3	15.4	35.7	0.38	29.9	0.0	-0.8	9.0

<b>Gender</b>			
	Ratio of male to female - adult literacy rate	Ratio of male to female - gross enrollment rate, all levels	Ratio of male to female - life expectancy at birth
Indicator Number	15P1	15P2	15P3
<i>Montenegro Data (SaM where indicated)</i>			
<i>Source (Where different from technical notes)</i>	Monstat / Census	Ministry of Education / Monstat	Monstat
<i>Latest Year (T)</i>	2004	2,003.0	2004
Value Year T	1.03	1.02	0.92
Value Year T-1	1.03	1.02	0.92
Value Year T-2	1.03	1.01	0.92
Value Year T-3	1.03	1.01	0.93
Value Year T-4	1.03	1.01	0.93
Average Value, 5 year	1.03	1.01	0.92
Growth Trend	.	0.30	-0.30
<i>Benchmark Data</i>			
Regression Benchmark	.	.	.
Lower Bound	.	.	.
Upper Bound	.	.	.
<i>Latest Year Bulgaria</i>	2002	2002	2002
Bulgaria Value Latest Year	1.01	0.97	0.90
<i>Latest Year Romania</i>	2002	2002	2002
Romania Value Latest Year	1.02	0.96	0.90
Lower Middle Income CEEC Avg.	1.02	0.97	0.93
Lower Middle Income Avg.	1.03	1.00	0.93
High Five Avg.	2.40	1.69	1.01
Low Five Avg.	0.92	0.84	0.85

Fiscal and Monetary Policy										
	Government expense, % GDP	Government revenue, % GDP	Growth in the money supply	Inflation rate	Cash Surplus/Deficit (% of GDP)	Composition of government expense (wages and salaries)	Composition of government expense (goods and services)	Composition of government expense (interest payments)	Composition of government expense (subsidies and other current transfers)	Composition of government expense (other expense)
Indicator Number	21P1	21P2	21P3	21P4	21P5	21S1a	21S1b	21S1c	21S1d	21S1e
<i>Montenegro Data (SaM where indicated)</i>										
<i>Source (Where different from technical notes)</i>	Ministry of Finance / A. Roudoi	Ministry of Finance	Central Bank of Montenegro	Monstat	A. Roudoi Calculation/ IMF	Ministry of Finance / A. Roudoi	Ministry of Finance / A. Roudoi	Ministry of Finance / A. Roudoi	Ministry of Finance / A. Roudoi	Ministry of Finance / A. Roudoi
<i>Latest Year (T)</i>	2004	2004	2004	2004	2004	2004	2004	2004	2004	2004
Value Year T	27.7	24.7	10.6	3.2	-2.6	33.6	10.1	5.6	39.3	11.5
Value Year T-1	27.6	23.7	.	6.2	-3.1	34.0	12.1	3.6	39.1	11.3
Value Year T-2	26.5	23.6	.	9.2	-1.9	33.0	12.1	3.9	42.7	8.3
Value Year T-3	20.8	18.5	.	23.8	-1.4	41.8	21.4	0.2	26.5	10.0
Value Year T-4	24.2	18.8	.	49.2	0.0	42.0	0.0	0.5	45.0	12.4
Average Value, 5 year	25.4	21.8	.	18.3	-1.8	36.9	11.1	2.8	38.5	10.7
Growth Trend	5.5	8.0	.	-68.1	.	.	.	.	.	.
<i>Benchmark Data</i>										
Regression Benchmark	41.8	35.4	11.8	6.1	-6.1	.	.	.	.	.
Lower Bound	37.8	31.4	4.7	2.8	-8.4	.	.	.	.	.
Upper Bound	45.8	39.4	18.8	9.4	-3.9	.	.	.	.	.
<i>Latest Year Bulgaria</i>	2003	2003	2003	2004	2003	2003	2003	2003	2003	2003
Bulgaria Value Latest Year	34.0	35.4	20.2	6.1	0.2	11.6	23.4	6.2	56.5	2.4
<i>Latest Year Romania</i>	2001	2001	2003	2004	2001	2001	2001	2001	2001	2001
Romania Value Latest Year	28.4	26.7	23.3	11.9	-3.6	15.4	19.8	10.8	48.5	5.5
Lower Middle Income CEEC Avg.	29.8	29.8	14.2	4.5	-1.7	11.9	21.1	11.3	52.3	3.4
Lower Middle Income Avg.	21.4	19.3	14.2	5.5	-1.3	24.1	15.7	8.9	30.4	5.6
High Five Avg.	43.7	44.1	134.4	85.3	3.9	52.5	47.7	18.8	71.8	22.1
Low Five Avg.	12.1	8.6	-8.5	-2.7	-8.1	6.2	6.0	1.9	2.6	0.3

**Fiscal and Monetary Policy (cont'd)**

	Composition of government revenue (Taxes of income, profits and capital gains)	Composition of government revenue (Taxes on goods and services)	Composition of government revenue (Taxes on international trade)	Composition of government revenue (Other taxes)	Composition of government revenue (Non-tax Revenue)	Other net revenue (grants less interest payments)	Composition of money supply growth (Net credit to government)	Composition of money supply growth (Credit to the private sector)	Composition of money supply growth (Net credit to non-financial public enterprises)	Composition of money supply growth (Net foreign assets)	Composition of money supply growth (Other items, net)
Indicator Number	21S2a	21S2b	21S2c	21S2d	21S2e	21S2f	21S3a	21S3b	21S3c	21S3d	21S3e
<i>Montenegro Data (SaM where indicated)</i>											
<i>Source (Where different from technical notes)</i>	Ministry of Finance / A. Roudoi	Ministry of Finance / A. Roudoi	Ministry of Finance / A. Roudoi	Ministry of Finance / A. Roudoi	Ministry of Finance / A. Roudoi	Ministry of Finance / A. Roudoi	Central Bank of Montenegro	Central Bank of Montenegro	Central Bank of Montenegro	Central Bank of Montenegro	Central Bank of Montenegro
<i>Latest Year (T)</i>	2004	2004	2004	2004	2004	2004	.	.	.	.	.
Value Year T	20.9	57.0	9.5	5.1	5.7	1.8	.	.	.	.	.
Value Year T-1	21.9	55.4	11.1	0.9	7.1	3.6	.	.	.	.	.
Value Year T-2	23.5	49.1	11.7	1.4	6.3	8.1	.	.	.	.	.
Value Year T-3	25.6	38.5	11.2	1.6	17.2	6.0	.	.	.	.	.
Value Year T-4	18.4	32.8	11.9	0.0	14.6	22.4	.	.	.	.	.
Average Value, 5 year	22.1	46.5	11.1	1.8	10.2	8.4	.	.	.	.	.
Growth Trend	.	.	.	.	.	.	.	.	.	.	.
<i>Benchmark Data</i>											
Regression Benchmark	.	.	.	.	.	.	.	.	.	.	.
Lower Bound	.	.	.	.	.	.	.	.	.	.	.
Upper Bound	.	.	.	.	.	.	.	.	.	.	.
<i>Latest Year Bulgaria</i>	2003	2003	2003	2003	2003	.	.	.	.	.	.
Bulgaria Value Latest Year	11.8	38.6	1.9	0.1	29.3	.	.	.	.	.	.
<i>Latest Year Romania</i>	2001	2001	2001	2001	2001	.	.	.	.	.	.
Romania Value Latest Year	10.3	30.0	3.1	0.6	41.3	.	.	.	.	.	.
Lower Middle Income CEEC Avg.	11.4	32.7	2.5	0.8	29.3	.	.	.	.	.	.
Lower Middle Income Avg.	16.7	38.1	7.8	1.8	8.7	.	.	.	.	.	.
High Five Avg.	53.7	57.9	34.1	5.4	45.0	.	.	.	.	.	.
Low Five Avg.	3.3	5.0	0.5	0.0	0.5	.	.	.	.	.	.

Business Environment											
	Corruption perception index	Doing business composite index	Rule of law index	Regulatory quality index	Cost of starting a business, % GNI per capita	Procedures to enforce a contract	Procedures to register property	Procedures to start a business	Time to enforce a contract	Time to register property	Time to start a business
Indicator Number	22P1	22P2	22P3	22P4	22S1	22S2	22S3	22S4	22S5	22S6	22S7
<i>Montenegro Data (SaM where indicated)</i>	<b>SaM</b>	<b>SaM</b>	<b>SaM</b>	<b>SaM</b>	<b>SaM</b>						
<i>Source (Where different from technical notes)</i>						CEED	CEED	CEED	CEED	CEED	CEED
<i>Latest Year (T)</i>	2005	.	2004	2004	2006	2006	2006	2006	2006	2006	2006
Value Year T	2.8	.	-0.7	-0.7	10	16	14	9.0	212	42.0	11.0
Value Year T-1	2.7	.	.	.	.	.	.	.	.	.	.
Value Year T-2	2.3	.	-1.0	-0.6	.	.	.	.	.	.	.
Value Year T-3	.	.	.	.	.	.	.	.	.	.	.
Value Year T-4	.	.	-1.0	-0.8	.	.	.	.	.	.	.
Average Value, 5 year	.	.	.	.	.	.	.	.	.	.	.
Growth Trend	.	.	.	.	.	.	.	.	.	.	.
<i>Benchmark Data</i>											
Regression Benchmark	.	.	.	.	.	.	.	.	.	.	.
Lower Bound	.	.	.	.	.	.	.	.	.	.	.
Upper Bound	.	.	.	.	.	.	.	.	.	.	.
<i>Latest Year Bulgaria</i>	2004	2004	2004	2004	2004	2004	2004	2004	2004	2004	2004
Bulgaria Value Latest Year	4.1	66.0	0.1	0.6	10	34	9	10.0	440	19.0	32.0
<i>Latest Year Romania</i>	2004	2004	2004	2004	2004	2004	2004	2004	2004	2004	2004
Romania Value Latest Year	2.9	62.5	-0.2	-0.1	7	43	8	5.0	335	170.0	28.0
Lower Middle Income CEEC Avg.	3.0	64.1	-0.3	-0.1	19	35	8	10.5	363	60.5	39.5
Lower Middle Income Avg.	3.1	64.9	-0.5	-0.3	20	29	7	10.0	339	44.5	43.0
High Five Avg.	9.5	82.5	2.0	1.9	726	55	16	17.2	1178	484.6	172.2
Low Five Avg.	1.6	41.8	-1.9	-2.3	0	13	2	2.4	50.8	2.0	4.2

Financial Sector								
	Domestic credit to private sector, % GDP	Interest rate spread, lending rate minus deposit rate	Money supply (M2), % GDP	Stock market capitalization rate, % GDP	Cost to create collateral	Country credit rating	Legal rights of borrowers and lenders index	Real interest rate
Indicator Number	23P1	23P2	23P3	23P4	23S1	23S2	23S3	23S4
<i>Montenegro Data (SaM where indicated)</i>							<b>SaM</b>	
<i>Source (Where different from technical notes)</i>	Central Bank of Montenegro		Central Bank of Montenegro	ISSP				
<i>Latest Year (T)</i>	2004	2004	2004	2004	.	.	2004	.
Value Year T	10.9	32.0	35.5	18.0	.	.	5.0	.
Value Year T-1	7.9	34.4	34.4	10.0	.	.	.	.
Value Year T-2	5.4	35.2	.	4.0	.	.	.	.
Value Year T-3	.	.	.	2.7	.	.	.	.
Value Year T-4	.	.	.	2.1	.	.	.	.
Average Value, 5 year	8.1	.	.	7.4	.	.	.	.
Growth Trend	.	.	.	56.1	.	.	.	.
<i>Benchmark Data</i>								
Regression Benchmark	14.1	8.5	.	.	.	.	.	.
Lower Bound	-1.1	5.9	.	.	.	.	.	.
Upper Bound	29.3	11.2	.	.	.	.	.	.
<i>Latest Year Bulgaria</i>	2003	2003	2003	2003	2004	.	2004	2003
Bulgaria Value Latest Year	27.6	5.9	44.6	8.8	1.0	.	6.0	6.6
<i>Latest Year Romania</i>	2003	.	2003	2003	2004	.	2004	.
Romania Value Latest Year	9.5	.	22.1	9.8	1.1	.	4.0	.
Lower Middle Income CEEC Avg.	17.9	6.4	42.9	9.3	8.2	.	5.5	9.8
Lower Middle Income Avg.	24.6	7.1	40.5	25.1	11.2	29.7	5.0	8.9
High Five Avg.	171.0	46.9	188.2	238.9	121.6	51.5	9.6	36.2
Low Five Avg.	1.6	1.0	4.8	1.0	0.0	9.4	1.2	-4.6

External Sector										
	Aid, % GNI	Current account balance, % GDP	Debt service ratio, % exports	Exports growth of goods and services	Foreign direct investment, % GDP	Gross international reserves, months of imports	Gross private capital inflows, %GDP	Present value of debt, % GNI	Remittance receipts, % exports	Trade, % GDP
Indicator Number	24P1	24P2	24P3	24P4	24P5	24P6	24P7	24P8	24P9	24P10
<i>Montenegro Data (SaM where indicated)</i>	<b>SaM</b>		<b>SaM</b>					<b>SaM</b>		
<i>Source (Where different from technical notes)</i>		Monstat / Central Bank of Montenegro		Central Bank of Montenegro	Secretariat for Development / Monstat / Central Bank				Central Bank of Montenegro	Central Bank of Montenegro
<i>Latest Year (T)</i>	2003	2004	2003	2004	2004	.	.	2003	2004	2004
Value Year T	6.4	-9.3	13.6	34.8	3.3	.	.	83.3	8.8	100.10
Value Year T-1	12.4	-7.1	4.6	-7.4	2.7	.	.	102.4	12.0	81.80
Value Year T-2	11.3	-13.5	2.4	29.5	6.7	.	.	117.3	19.5	100.90
Value Year T-3	13.2	-24.5	3.2	26.6	8.5	.	.	.	41.3	93.30
Value Year T-4	6.9	-14.9	1.3	34.7	.	.	.	.	16.4	71.50
Average Value, 5 year	10.0	13.9	5.0	23.6	5.3	.	.	.	19.6	89.52
Growth Trend	-2.0	.	.	.	-37.3	.	.	.	-24.8	5.40
<i>Benchmark Data</i>										
Regression Benchmark	9.2	-12.5	13.3	5.6	4.5	3.7	.	57.9	.	122.8
Lower Bound	4.6	-16.8	6.0	0.1	0.8	2.4	.	34.5	.	102.9
Upper Bound	13.7	-8.2	20.7	11.1	8.2	5.0	.	81.4	.	142.6
<i>Latest Year Bulgaria</i>	2003	2003	2003	2003	2003	2003	2003	2003	.	2003
Bulgaria Value Latest Year	2.1	-8.4	10.5	8.0	7.2	6.2	16.2	85.5	.	116.20
<i>Latest Year Romania</i>	2003	2003	2003	2003	2003	2003	2003	2003	2003	2003
Romania Value Latest Year	1.1	-5.8	17.3	8.2	3.2	4.3	8.2	46.0	0.1	71.56
Lower Middle Income CEEC Avg.	3.6	-6.3	11.7	9.4	3.1	4.6	8.4	43.2	8.5	77.98
Lower Middle Income Avg.	1.3	-1.7	11.6	5.8	2.0	4.0	11.2	43.7	8.1	78.14
High Five Avg.	66.1	18.0	61.5	21.6	99.4	18.6	875.4	380.0	86.5	228.00
Low Five Avg.	-0.3	-27.8	0.9	-19.8	-0.4	0.3	1.8	9.1	0.0	27.10



External Sector (cont'd)										
Indicator Number	Concentration of exports (top three exports, 3-digit SITC)	Inward FDI potential index	Net barter terms of trade	Real effective exchange rate index 2000 (2000=100)	Structure of merchandise exports (agricultural raw materials exports, % of merchandise exports)	Structure of merchandise exports (fuel exports, % of merchandise exports)	Structure of merchandise exports (manufactures exports, % of merchandise exports)	Structure of merchandise exports (ores and metals exports, % of merchandise exports)	Structure of Merchandise Exports (Food Exports (% of Merchandise Exports)	Trade policy index
	24S1	24S2	24S3	24S4	24S5a	24S5b	24S5c	24S5d	24S5e	24S6
<i>Montenegro Data (SaM where indicated)</i>										<b>SaM</b>
<i>Source (Where different from technical notes)</i>				ISSP	Central Bank of Montenegro / Customs	Central Bank of Montenegro / Customs	Central Bank of Montenegro / Customs	Central Bank of Montenegro / Customs	Central Bank of Montenegro / Customs	
<i>Latest Year (T)</i>	.	.	.	2004	2004	2004	2004	2004	2004	2003
Value Year T	.	.	.	178.0	.	.	.	.	.	4.0
Value Year T-1	.	.	.	148.4	.	.	.	.	.	4.0
Value Year T-2	.	.	.	145.2	.	.	.	.	.	.
Value Year T-3	.	.	.	106.3	.	.	.	.	.	.
Value Year T-4	.	.	.	77.1	.	.	.	.	.	.
Average Value, 5 year	.	.	.	131.0	.	.	.	.	.	.
Growth Trend	.	.	.	20.1	.	.	.	.	.	.
<i>Benchmark Data</i>										
Regression Benchmark	.	.	.	.	.	.	.	.	.	.
Lower Bound	.	.	.	.	.	.	.	.	.	.
Upper Bound	.	.	.	.	.	.	.	.	.	.
<i>Latest Year Bulgaria</i>	.	2002	.	.	2003	2003	2003	2003	2003	2004
Bulgaria Value Latest Year	.	0.2	.	.	2.3	5.8	65.8	10.3	10.2	4.0
<i>Latest Year Romania</i>	.	2002	.	.	2003	2003	2003	2003	2003	2004
Romania Value Latest Year	.	0.2	.	.	3.1	6.5	82.5	4.2	3.2	4.0
Lower Middle Income CEEC Avg.	.	0.2	98.0	.	2.3	5.4	82.5	4.2	10.0	4.0
Lower Middle Income Avg.	.	0.2	98.0	.	2.3	5.8	48.1	3.2	14.3	4.0
High Five Avg.	.	0.5	149.8	.	30.8	92.8	94.2	51.5	91.0	5.0
Low Five Avg.	.	0.1	71.8	.	0.0	0.0	2.6	0.0	0.5	1.4

Indicator Number	Economic Infrastructure							Science and Technology			
	Internet users per 1000 people	Overall infrastructure quality index	Telephone density, fixed line and mobile, per 1000 people	Quality of infrastructure index - air transport	Quality of infrastructure index - ports	Quality of infrastructure index - railroads	Quality of infrastructure index - electricity	Telephone cost, average local call	Expenditure for R&D, % GDP	FDI and technology transfer Index	Patent applications filed, residents
	25P1	25P2	25P3	25S1a	25S1b	25S1c	25S1d	25S2	26P1	26P2	26P3
<i>Montenegro Data (SaM where indicated)</i>								<b>SaM</b>	<b>SaM</b>	<b>SaM</b>	<b>SaM</b>
<i>Source (Where different from technical notes)</i>	Agency for Telecommunications		Agency for Telecommunications								
<i>Latest Year (T)</i>	2004	.	2003	.	.	.	.	2002	2001	2004	2002
Value Year T	85.7	.	608.3	.	.	.	.	0.1	0.40	3.7	507.0
Value Year T-1	37.5	.	633.0	.	.	.	.	0.1	0.40	.	470.0
Value Year T-2	27.0	.	538.7	.	.	.	.	.	0.00	.	396.0
Value Year T-3	18.0	.	418.9	.	.	.	.	0.1	0.00	.	340.0
Value Year T-4	11.4	.	231.9	.	.	.	.	0.1	0.10	.	526.0
Average Value, 5 year	35.9	.	486.2	.	.	.	.	0.0	0.20	.	447.8
Growth Trend	47.7	.	23.4	.	.	.	.	2.3	.	.	2.5
<i>Benchmark Data</i>											
Regression Benchmark	63.5	.	338.6	.	.	.	.	.	.	.	.
Lower Bound	34.6	.	248.2	.	.	.	.	.	.	.	.
Upper Bound	92.5	.	429.0	.	.	.	.	.	.	.	.
<i>Latest Year Bulgaria</i>	2003	2004	2003	2004	2004	2004	2004	2003	2002	2004	2002
Bulgaria Value Latest Year	80.8	2.8	846.9	2.7	3.7	3.700	4.3	0.0	0.5	4.4	306.0
<i>Latest Year Romania</i>	2003	2004	2003	2004	2004	2004	2004	2003	2002	2004	2002
Romania Value Latest Year	190.5	2.7	523.6	4.1	4.0	3.400	3.8	0.1	0	5.1	1,486.0
Lower Middle Income CEEC Avg.	64.5	2.8	523.6	3.4	3.7	2.850	4.1	0.1	0.4	4.4	174.0
Lower Middle Income Avg.	39.8	3.3	272.6	4.1	3.7	2.300	4.1	0.0	0.3	4.6	13.0
High Five Avg.	585.8	6.7	1,686.0	6.7	6.6	6.480	6.9	0.4	3.5	5.9	153,540.2
Low Five Avg.	0.9	1.5	9.8	2.4	1.3	1.1	1.4	0.0	0.1	3.3	0.0

Health									
	HIV prevalence	Life expectancy at birth	Maternal mortality rate	Access to improved sanitation	Access to improved water source	Births attended by skilled health personnel	Child immunization rate	Prevalence of child malnutrition (weight for age)	Public health expenditure, % GDP
Indicator Number	31P1	31P2	31P3	31S1	31S2	31S3	31S4	31S5	31S6
<i>Montenegro Data (SaM where indicated)</i>	<b>SaM</b>			<b>SaM</b>	<b>SaM</b>		<b>SaM</b>	<b>SaM</b>	
<i>Source (Where different from technical notes)</i>		Monstat	Monstat			Monstat	Institute for Health		OECD
<i>Latest Year (T)</i>	2003	2004	2004	2002	2002	2000	2003	2000	2003
Value Year T	0.2	73.1	22.7	87.0	93.0	99.1	88.0	1.9	7.7
Value Year T-1	.	73.1	.	.	.	.	93.5	.	7.7
Value Year T-2	0.2	73.0	.	.	.	.	91.5	.	7.1
Value Year T-3	.	73.4	.	.	.	.	92.0	.	6.7
Value Year T-4	0.1	73.4	.	.	.	92.6	88.0	1.6	.
Average Value, 5 year	.	73.2	.	.	.	.	90.6	.	7.3
Growth Trend	.	-0.1	.	.	.	.	.	.	5.0
<b>Benchmark Data</b>									
Regression Benchmark	.	71.9	.	.	.	.	.	.	.
Lower Bound	.	68.3	.	.	.	.	.	.	.
Upper Bound	.	75.6	.	.	.	.	.	.	.
<i>Latest Year Bulgaria</i>	2003	2003	2000	2002	2002	.	2003	.	2002
Bulgaria Value Latest Year	0.1	72.1	32.0	100.0	100.0	.	96.0	.	4.5
<i>Latest Year Romania</i>	2003	2003	2000	2002	2002	1999	2003	2002	2002
Romania Value Latest Year	0.1	70.1	49.0	51.0	57.0	97.9	97.0	3.2	4.2
Lower Middle Income CEEC Avg.	0.1	72.8	40.5	89.0	97.0	96.0	95.5	3.2	4.4
Lower Middle Income Avg.	0.1	69.5	110.0	74.0	85.5	69.0	92.5	7.0	3.3
High Five Avg.	30.2	80.5	1,720.0	100.0	100.0	.	99.0	36.3	8.7
Low Five Avg.	0.1	37.3	1.8	8.0	26.4	20.8	39.0	7.3	0.6

Education												
	Net primary enrollment rate (total)	Net primary enrollment rate (female)	Net primary enrollment rate (male)	Persistence in school to grade 5 (total)	Persistence in school to grade 5 (female)	Persistence in school to grade 5 (male)	Youth literacy rate	Education expenditure, primary, %GDP	Expenditure per student, % GDP per capita - primary, secondary, and tertiary (primary)	Expenditure per student, % GDP per capita - primary, secondary, and tertiary (secondary)	Expenditure per student, % GDP per capita - primary, secondary, and tertiary (tertiary)	Pupil-teacher ratio, primary school
Indicator Number	32P1a	32P1b	32P1c	32P2a	32P2b	32P2c	32P3	32S1	32S2a	32S2b	32S2c	32S3
<i>Montenegro Data (SaM where indicated)</i>												
<i>Source (Where different from technical notes)</i>	ISSP	ISSP	ISSP				Monstat / Census					Monstat
<i>Latest Year (T)</i>	2004	2004	2004	.	.	.	2004	.	.	.	.	2003
Value Year T	95.9	95.9	93.0	.	.	.	99.40	.	.	.	.	14.8
Value Year T-1	95.1	95.2	94.9	.	.	.	99.40	.	.	.	.	14.7
Value Year T-2	97.2	98.3	96.5	.	.	.	99.40	.	.	.	.	14.7
Value Year T-3	95.9	97.0	94.8	.	.	.	99.40	.	.	.	.	15.0
Value Year T-4	98.3	99.1	97.0	.	.	.	99.40	.	.	.	.	15.4
Average Value, 5 year	96.5	97.1	95.2	.	.	.	99.40	.	.	.	.	14.9
Growth Trend	-0.6	-0.8	-0.8	.	.	.	.	.	.	.	.	-1.0
<i>Benchmark Data</i>												
Regression Benchmark	89.3	.	.	84.4	.	.	95.2	.	.	.	.	.
Lower Bound	82.4	.	.	75.9	.	.	87.7	.	.	.	.	.
Upper Bound	96.2	.	.	92.9	.	.	102.6	.	.	.	.	.
<i>Latest Year Bulgaria</i>	2002	2002	2002	.	.	.	2002	.	2001	2001	2001	2001
Bulgaria Value Latest Year	90.4	89.9	90.9	.	.	.	99.69	.	16.86	19.1	20	16.8
<i>Latest Year Romania</i>	2002	2002	2002	.	.	.	2002	.	.	.	2001	2001
Romania Value Latest Year	88.9	88.5	89.4	.	.	.	97.76	.	.	.	30	17.4
Lower Middle Income CEEC Avg.	90.4	89.9	90.8	.	.	.	98.72	.	14.25	16.5	30	17.4
Lower Middle Income Avg.	92.0	91.5	92.3	81.2	80.4	79.5	96.81	2.37	11.52	14.8	36	21.6
High Five Avg.	100.0	100.0	100.0	99.2	99.8	99.3	99.82	5.54	31.33	46.9	344	65.5
Low Five Avg.	42.3	36.9	47.6	52.3	51.5	51.8	46.44	0.17	6.24	6.0	10	11.7

Employment and Workforce							
Indicator Number	Labor force participation rate (total)	Labor force participation rate (male)	Labor force participation rate (female)	Rigidity of employment index	Size and Growth of the Labor Force (labor force, total)	Labor force growth rate	Unemployment rate
	33P1a	33P1b	33P1c	33P2	33P3a	33P3b	33P4
<i>Montenegro Data (SaM where indicated)</i>							
<i>Source (Where different from technical notes)</i>	Statistical Office of SaM, Labor Force Survey	Statistical Office of SaM, Labor Force Survey	Statistical Office of SaM, Labor Force Survey	ISSP	Statistical Office of SaM, Labor Force Survey	Statistical Office of SaM, Labor Force Survey	Unemployment Office of Montenegro
<i>Latest Year (T)</i>	2004	2004	2004	2004	2004	2004	2004
Value Year T	60.2	69.1	51.5	49.0	259,092.0	-5.4	22.6
Value Year T-1	67.0	70.9	62.3	49.0	273,952.0	-1.5	25.8
Value Year T-2	66.0	70.1	60.9	59.0	278,265.0	2.3	30.5
Value Year T-3	63.4	68.2	57.7	59.0	271,891.0	-4.7	31.5
Value Year T-4	71.5	73.9	68.6	59.0	285,258.0	3.5	32.7
Average Value, 5 year	.	70.4	60.2	55.0	273,691.6	-1.2	28.6
Growth Trend	-2.9	-1.0	-5.0	.	-1.8	.	-9.4
<i>Benchmark Data</i>							
Regression Benchmark	.	.	.	.	.	.	.
Lower Bound	.	.	.	.	.	.	.
Upper Bound	.	.	.	.	.	.	.
<i>Latest Year Bulgaria</i>	2003	2003	2003	2004	2003	2003	2002
Bulgaria Value Latest Year	73.6	77.5	69.8	28.0	4,061,858.1	-0.4	17.6
<i>Latest Year Romania</i>	2003	2003	2003	2004	2003	2003	2002
Romania Value Latest Year	67.9	75.4	60.6	63.0	10,481,042.9	0.0	8.4
Lower Middle Income CEEC Avg.	70.8	80.4	59.8	43.5	3,003,914.4	1.0	15.8
Lower Middle Income Avg.	69.7	85.0	53.8	40.0	4,374,291.4	2.3	9.1
High Five Avg.	102.4	112.6	97.0	84.6	316,912,650.3	5.7	24.3
Low Five Avg.	50.4	70.9	21.5	1.2	125,146.6	-0.3	1.7

Agriculture						
	Agriculture value added per worker	Cereal yield	Growth in agricultural value-added	Agricultural policy costs index	Crop production index	Livestock production index
Indicator Number	34P1	34P2	34P3	34S1	34S2	34S3
<i>Montenegro Data (SaM where indicated)</i>						<b>SaM</b>
<i>Source (Where different from technical notes)</i>				Ministry of Agriculture, Forestry & Water Supply	Monstat	
<i>Latest Year (T)</i>	.	2004	.	2004	2003	2004
Value Year T	.	3,782.6	.	2.0	126.9	94.5
Value Year T-1	.	2,755.3	.	2.1	141.8	93.4
Value Year T-2	.	3,976.2	.	1.8	124.9	96.9
Value Year T-3	.	4,269.1	.	1.8	85.6	93.9
Value Year T-4	.	2,640.2	.	3.0	118.4	102.3
Average Value, 5 year	.	3,484.7	.	2.1	119.5	96.2
Growth Trend	.	2.9	.	-6.3	6.4	-1.6
<b>Benchmark Data</b>						
Regression Benchmark	2,486.5	.	.	.	.	.
Lower Bound	1,617.4	.	.	.	.	.
Upper Bound	3,355.6	.	.	.	.	.
<i>Latest Year Bulgaria</i>	2003	2004	2003	2004	2004	2004
Bulgaria Value Latest Year	6,826.2	3,543.7	-1.3	2.7	106.0	95.9
<i>Latest Year Romania</i>	2003	2004	2003	2004	2004	2004
Romania Value Latest Year	3,621.0	3,899.3	3.0	3.0	132.6	119.1
Lower Middle Income CEEC Avg.	3,095.6	3,143.2	2.1	2.9	103.4	105.0
Lower Middle Income Avg.	1,766.2	2,433.9	2.5	3.5	105.3	105.1
High Five Avg.	40,134.9	7,775.3	22.0	5.3	134.9	145.5
Low Five Avg.	108.2	312.1	-13.4	2.4	69.5	78.3



# Technical Notes

The following technical notes (updated as of August, 2005) identify the source for each indicator, provide a concise definition, indicate the coverage of USAID countries, and comment on data quality where pertinent. For reference purposes, a CAS code is also given for each indicator. In many cases, the descriptive information is taken directly from the original sources, as cited.

## GROWTH PERFORMANCE

### Per capita GDP, current US dollars

*Source:* IMF World Economic Outlook database, updated every 6 months, at:

<http://www.imf.org/external/ns/cs.aspx?id=28>

*Definition:* GDP per capita is gross domestic product divided by midyear population. GDP is the sum of gross value added by all resident producers plus any product taxes, less any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources.

*Coverage:* Data are available for about 85 USAID countries.

*CAS Code #11P2*

### Per capita GDP, purchasing power parity dollars

*Source:* IMF World Economic Outlook database, updated every 6 months, at:

<http://www.imf.org/external/ns/cs.aspx?id=28>

*Definition:* This indicator adjusts per capita GDP measured in current U.S. dollars for differences in purchasing power, using an estimated exchange rate reflecting the purchasing power of the various local currencies.

*Coverage:* Data are available for about 85 USAID countries.

*CAS Code #11P1*

### Real GDP growth

*Source:* IMF World Economic Outlook database, updated every 6 months; latest country data from IMF Article IV Review Reports available at:

[www.imf.org/external/np/sec/aiv/index.htm](http://www.imf.org/external/np/sec/aiv/index.htm)

*Definition:* Annual percentage growth rate of GDP at constant local currency prices.

*Coverage:* Data are available for about 85 USAID countries.

*CAS Code #11P3*

### Growth of labor productivity

*Source:* World Development Indicators 2005. Estimated by calculating the annual percentage change of the ratio of GDP (constant 1995 US\$) (NY.GDP.MKTP.KD) to the population age 15-64, which in turn is the product of the total population (SP.POP.TOTL) times the percentage of total population that is in this age group (SP.POP.1564.IN.ZS).

*Definition:* Labor productivity is defined here as the ratio of GDP (in constant prices) to the size of the working age population (ages 15 to 64 years). The more familiar calculation, based on employment, labor force, or work hours, is not used here because low participation or employment rates are themselves structural productivity problems; also, many low-income countries do not report

data needed to compute these alternative measures of labor productivity.

*Coverage:* Data are available for about 85 USAID countries.

*CAS Code # 11S1*

### Investment productivity --incremental capital-output ratio (ICOR)

*Source:* International benchmark data computed from World Development Indicators 2005, based on the five-year average of the share of fixed investment (NE.GDI.FTOT.ZS) and the five-year average GDP growth (NY.GDP.MKTP.KD.ZG). Updated figures for the target country are computed from IMF article IV Consultation Reports.

*Definition:* The ICOR shows the amount of capital investment incurred per extra unit of output. A high value represents low investment productivity. The ICOR is calculated here as the ratio of (a) the investment share of GDP to (b) the growth rate of GDP, using five-year averages for both the numerator and denominator.

*Coverage:* Data are available for about 81 USAID countries.

*CAS Code #11S2*

### Gross fixed investment, percentage of GDP

*Source:* IMF Article IV Consultation Reports for latest country data; international benchmark from the World Development Indicators 2005 series NE.GDI.FTOT.ZS.

*Definition:* Gross fixed investment is spending on replacing or adding to fixed assets (buildings, machinery, equipment and similar goods).

*Coverage:* Data are available for about 84 USAID countries.

*CAS Code # 11S3*

### Gross fixed private investment, percentage of GDP

*Source:* IMF Article IV Consultation Reports, for latest country data; World Development Indicators 2004, for international comparison data (explanation below). The estimation of this indicator involves taking the difference between gross fixed capital formation (% of GDP) (NE.GDLFTOT.ZS) and government capital expenditure (% of GDP). The latter term is the product of government capital expenditure (% of total expenditure) (GB.XPK.TOTL.ZS) and total government expenditure (% of GDP) (GB.XPD.TOTL.GD.ZS).

*Definition:* This indicator measures gross fixed capital formation by non-government investors, including spending for replacement or net addition to fixed assets (buildings, machinery, equipment and similar goods).

*Coverage:* Available from World Development Indicators 2004 for about 38 USAID countries. Starting in 2005, WDI no longer reports government capital expenditure, which is needed to compute this variable. The reason is that the World Bank has adopted a new system for Government Finance Statistics, which switches from reporting budget performance



based on cash outlays and receipts, to a modified accrual accounting system in which government capital formation is a balance sheet entry, and only the consumption of fixed capital (that is, a depreciation allowance) is treated as an expense. The template will include this variable when the required data can be obtained from IMF Article IV Consultation Reports or national data sources. Group and regression benchmarks will be computed from WDI 2004 (since group averages tend to be relatively stable).

*Data Quality:* National statistics offices may have different methodologies for breaking down total government expenditure into current and capital components. In particular, the data on “development expenditure” in many countries includes elements of current expenditure.

*CAS Code #11S4*

## POVERTY AND INEQUALITY

### Human poverty index

*Source:* UNDP, Human Development Report.

<http://hdr.undp.org/statistics/data/indicators.cfm?x=18&y=1&z=1> for 2005 edition; updates may be found at [http://hdr.undp.org/reports/view\\_reports.cfm?type=1](http://hdr.undp.org/reports/view_reports.cfm?type=1)

*Definition:* The index measures deprivation in terms of not meeting target levels for specified economic and quality of life indicators. Values are based on (1) percentage of people not expected to survive to age 40, (2) percentage of adults who are illiterate, and (3) percentage of people who fail to attain a ‘decent living standard,’ which is subdivided into three (equally weighted) separate items: (a) percentage of people without access to safe water, (b) percentage of people without access to health services, and (c) percentage of underweight children. The HPI ranges in value from 0 (for zero deprivation incidence) to 100 (for high deprivation incidence).

*Coverage:* Data are available for about 60 USAID countries.

*CAS Code #12P1*

### Income share held by lowest 20%

*Source:* World Development Indicators 2005 series SI.DST.FRST.20. These are World Bank staff estimates based on primary household survey data obtained from government statistical agencies and World Bank country departments. Alternate source for target countries: Country Poverty Reduction Strategy Paper:

<http://www.imf.org/external/np/prsp/prsp.asp>

*Definition:* Share of total income or consumption accruing to the poorest quintile of the population.

*Coverage:* Data are available for about 59 USAID countries, if one goes back to 1997; for the period since 2000, data are available for about 35 USAID countries.

*CAS Code # 12P2*

### Percentage of population living on less than \$1 PPP per day

*Source:* World Development Indicators 2005 series SI.POV.DDAY, original data from National Surveys. Alternate source for target countries: the country’s Poverty Reduction Strategy Paper:

<http://www.imf.org/external/np/prsp/prsp.asp>

*Definition:* The indicator captures the percentage of the population living on less than \$1.08 a day at 1993 international prices.

*Coverage:* Data are available for about 59 USAID countries going back to 1997; data for 2000 or later are available for about 35 USAID countries.

*Data Quality:* Poverty data originate from household survey questionnaires which can differ widely; even similar surveys may not be strictly comparable because of difference in quality.

*CAS Code #12P3*

### Population below minimum dietary energy consumption

*Source:* UN Millennium Indicators Database at [http://millenniumindicators.un.org/unsd/mi/mi\\_series\\_results.asp?rowId=566](http://millenniumindicators.un.org/unsd/mi/mi_series_results.asp?rowId=566), based on FAO estimates.

*Definition:* Proportion of the population in a condition of undernourishment. The FAO defines undernourishment as the condition of people whose dietary energy consumption is continuously below a minimum dietary energy requirement for maintaining a healthy life and carrying out a light physical activity.

*Coverage:* Data are available for about 82 USAID countries.

*CAS Code # 12S1*

### Poverty headcount, national poverty line

*Source:* World Development Indicators 2005 series SI.POV.NAHC. Alternate source: Country Poverty Reduction Strategy Paper (PRSP):

<http://www.imf.org/external/np/prsp/prsp.asp>

*Definition:* The percentage of the population living below the national poverty line. National estimates are based on population-weighted estimates from household surveys

*Coverage:* Data available for only 19 countries for 2000 or later; data are available for about 49 countries going back to 1997. For most target countries, data can be obtained from the PRSP.

*Data Quality:* Measuring the percentage of people below the “national poverty line” has the disadvantage of limiting international comparisons due to differences in the definition of the poverty line. Most lower income countries, however, determine the national poverty line by the level of consumption required to have a minimally sufficient food intake plus other basic necessities.

*CAS Code #12P4*

### PRSP Status

*Source:* World Bank/IMF. A list of countries with a Poverty Reduction Strategy Paper (PRSP) can be found at <http://www.imf.org/external/np/prsp/prsp.asp>

*Definition:* Yes or no variable showing whether a country has (or not) completed a PRSP (introduced by the WB and IMF to ensure host country ownership of poverty reduction programs).

*Coverage:* All countries having PRSPs are so indicated.

*CAS Code #12P5*

### Poverty gap at \$1 PPP a day

*Source:* World Development Indicators 2005 series SI.POV.GAPS, original data from national surveys. Alternate source: the country’s Poverty Reduction Strategy Paper: <http://www.imf.org/external/np/prsp/prsp.asp>

*Definition:* The poverty gap is the mean shortfall from the poverty line (counting the non-poor as having zero shortfall), expressed as a percentage of the poverty line. This measure reflects the depth of poverty as well as its incidence.

*Coverage:* Data are available for about 58 USAID countries going back to 1997; data for 2000 or later are available for about 32 USAID countries.

*CAS Code #12S2*

## ECONOMIC STRUCTURE

### Labor force or employment structure

*Source:* World Development Indicators 2005 series SL.AGR.EMPL.ZS for agriculture, series SL.IND.EMPL.ZS for industry, and series SL.SRV.EMPL.ZS for services. Alternate source: CIA World Fact Book .  
<http://www.cia.gov/cia/publications/factbook/>.

*Definition:* Employment in each sector is the proportion of total employment recorded as working in that sector. Employees are people who work for a public or private employer and receive remuneration in wages, salary, commission, tips, piece rates, or pay in kind. Agriculture includes hunting, forestry, and fishing. Industry includes mining and quarrying (including oil production), manufacturing, electricity, gas and water, and construction. Services 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.

*Coverage:* Data are available for about 37 USAID countries. For most target countries, data can be obtained from PRSP.

*Data Quality:* Employment figures originate from International Labor Organization. Some countries report labor force structure instead of employment, thus the data must be checked carefully prior to making comparisons.

*CAS Code #13P1*

### Output structure

*Source:* World Development Indicators 2005 series NV.AGR.TOTL.ZS for value added in agriculture as a percentage of GDP; series NV.IND.TOTL.ZS for the share of industry; and NV.SRV.TETC.ZS for the share of services.

*Definition:* The output structure is comprised of value added by major sectors of the economy (agriculture, industry, and services) as percentages of GDP, where value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs. Value added is calculated without making deductions for depreciation of fabricated assets or depletion and degradation of natural resources. Agriculture includes forestry, hunting, and fishing, as well as cultivation of crops and livestock production. Industry includes manufacturing, mining, construction, electricity, water, and gas. Services include wholesale and retail trade (including hotels and restaurants), transport, and government, financial, professional, and personal services such as education, health care, and real estate services.

*Coverage:* Data are available for about 86 USAID countries.

*Data Quality:* A major difficulty in compiling national accounts is the extent of unreported activity in the informal economy. In developing countries a large share of agricultural output is either not exchanged (because it is consumed within the household) or not exchanged for money. This production is estimated indirectly using estimates of inputs, yields, and area under cultivation. This approach can differ from the true values over time and across crops. Ideally, informal activity in industry and services should be measured through regular enterprise censuses and surveys. In most developing countries such surveys are infrequent, so prior survey results are extrapolated.

*CAS Code #13P2*

## DEMOGRAPHY AND ENVIRONMENT

### Adult literacy rate

*Source:* World Development Indicators 2005 series SE.ADT.LITR.ZS, based on UNESCO calculations.

*Definition:* Percentage of people ages 15 and over who can read and write a short-simple statement about their daily life.

*Coverage:* Data are available for about 66 USAID countries.

*Data Quality:* In practice, literacy is difficult to measure. A proper estimate requires census or survey measurements under controlled conditions. Many countries estimate the number of illiterate people from self-reported data, or by taking people with no schooling as illiterate.

*CAS Code # 14P1*

### Age dependency rate

*Source:* World Development Indicators 2005 series SP.POP.DPND.

*Definition:* The ratio of dependents (those younger than 15 and older than 64) to the working-age population (those ages 15-64).

*Coverage:* Data are available for about 89 USAID countries.

*CAS Code #14P2*

### Environmental Sustainability Index

*Source:* Center for International Earth Science Information Network (CIESIN) at Columbia University, and Yale Center for Environmental Law and Policy at Yale University. The 2005 index is at <http://www.yale.edu/esi/ESI2005.pdf>. For updates: <http://www.yale.edu/esi/>.

*Definition:* The index measures the likelihood that a country will be able to preserve valuable environmental resources effectively. It is a composite index integrating 76 data sets tracking natural resource endowments, pollution levels, environmental management efforts, and the capacity of a society to improve its environmental performance. The index values range from a low of 0 (for countries that are positioned poorly to maintain favorable environmental conditions into the future) to a high of 100 (for countries that are positioned very well to maintain favorable environmental conditions into the future); most scores cluster between 40 and 60.

*Coverage:* Data are available for about 83 USAID countries.

*CAS Code #14P3*

### Population size (in millions) and growth

*Source:* World Development Indicators 2005 series SP.POP.TOTL for total population, and series SP.POP.GROW for the population growth rate.

*Definition:* Total population counts all residents regardless of legal status or citizenship--except refugees not permanently settled in the country of asylum. Annual population growth rate is based on the de facto definition of population.

*Coverage:* Data are available for about 88 USAID countries.

*CAS Code # 14P4*

### Urbanization rate

*Source:* World Development Indicators 2005 series SP.URB.TOTL.IN.ZS.

*Definition:* Urban population is the share of the total population living in areas defined as urban in each country. The calculation considers all residents regardless of legal status or citizenship, except refugees.

*Coverage:* Data are available for about 86 USAID countries.

*Data Quality:* The estimates are based on national definitions of what constitutes an urban area; since these definitions vary greatly, cross-country comparisons should be made with caution.

CAS Code #14P5

## GENDER

### Adult literacy rate, ratio of male to female

*Source:* Computed from UNDP Human Development Indicators: <http://hdr.undp.org/statistics/data/>

*Definition:* The ratio of adult male literacy rate to adult female literacy rate.

*Coverage:* Data are available for about 74 USAID countries.

CAS Code #15P1

### Gross enrollment rate, all levels of education, ratio of male to female

*Source:* Computed from UNDP Human Development Indicators: <http://hdr.undp.org/statistics/data/>

*Definition:* The ratio of the gross enrollment rate for males to that of females. The gross enrollment rate is the ratio of students enrolled in primary, secondary, and tertiary levels of education, regardless of age, to the total school age population for all three levels, assuming normal age of entry into the system and uninterrupted continuation to completion.

*Coverage:* Data are available for about 83 USAID countries.

CAS Code # 15P2

### Life expectancy, ratio of male to female

*Source:* Estimated from UNDP Human Development Indicators: <http://hdr.undp.org/statistics/data/>

*Definition:* The ratio of life expectancy at birth (years) for males, divided by the life expectancy at birth (years) for females. Life expectancy at birth indicates the number of years a newborn infant would live if current age-specific mortality were to stay the same throughout its life. The ratio shows the disparity in life expectancies between males and females.

*Coverage:* Data are available for about 85 USAID countries.

CAS Code #15P3

## FISCAL AND MONETARY POLICY

In the World Development Indicators for 2005, the World Bank has adopted a new system for government budget statistics, switching from data based on cash outlays and receipts, to a system with revenues booked on receipt and expenses booked on accrual, in accordance with the IMF's *Government Financial Statistics Manual, 2001*. On the revenue side, the changes are minor, and comparisons to the old system may still be valid. There is a major change, however, in the reporting of capital outlays, which are now treated as balance sheet entries; only the annual capital consumption allowance (depreciation) is reported as an expense. Hence, the data on total *expense* is not comparable to the former data on total *expenditure*. In addition, WDI 2005 now provides data on the government's *cash surplus/deficit*; this differs from the previous concept of the *overall budget balance* by excluding net lending minus repayments (which are now a financing item under net acquisition of financial assets). Many countries do not use the new GFS system, so country coverage of fiscal data in

WDI 2005 is quite limited. For these reasons, the template will continue to use some data from WDI 2004, along with new data from WDI 2005 data, as appropriate.

### Overall budget balance (including grants), or Cash surplus/deficit, as percentages of GDP

*Source:* For countries using the new GFS system (see explanation at the beginning of this section), benchmarking data on the government's cash surplus/deficit are obtained from World Development Indicators 2005 series GC.BAL.CASH.GD.ZS. For countries that are not yet using the new system, benchmarking data on the overall budget balance are obtained from WDI 2004, series GB.BAL.OVRL.GD.ZS. Latest country data is obtained from national data sources or from IMF Article IV Reviews: [www.imf.org/external/np/sec/aiv/index.htm](http://www.imf.org/external/np/sec/aiv/index.htm).

*Definition:* The cash surplus/deficit is revenue (including grants) minus expenses, minus net acquisition of non-financial assets. This is close to the previous concept *overall budget balance*, differing only in that it excludes net lending (which is now treated as a financing item, under net acquisition of financial assets).

For countries that are not using the new GFS system, the template will continue to focus on the *overall budget balance*, using data from the alternative sources indicated above. The overall budget deficit is defined as the difference between total revenue (including grants) and total expenditure.

Both concepts measure the central government's financing requirement, which must be met by domestic or foreign borrowing. As noted above, they differ in that the new cash surplus/deficit variable excludes net lending (which is usually a minor item).

*Coverage:* Data are available in WDI 2005 for 41 USAID countries.

CAS Code # 21P5

### Composition of government expenditure (for countries not using GFS 2001 system)

*Source:* Benchmarking data are from World Development Indicators 2004. Country data constructed from national data sources or from IMF Article IV Consultative Reports: [www.imf.org/external/np/sec/aiv/index.htm](http://www.imf.org/external/np/sec/aiv/index.htm).

*Definition:* Central government expenditure, broken down using categories from WDI 2004: (1) subsidies and other current transfers, (2) wages and salaries, (3) interest payments, (4) goods and services expenditure, and (5) capital expenditure, all as a percent of total expenditure.

*Coverage:* Data are available for about 37 USAID countries from World Development Indicators 2004. As explained at the beginning of this section, WDI no longer reports government *expenditures* starting in 2005. The template will include this variable when the required data can be obtained from IMF Article IV Consultation Reports or national data sources for the target country and the comparison countries. Group. The group benchmarks will still be computed from WDI 2004 (since group averages tend to be relatively stable).

*Data Quality:* Many countries report their revenue in non-comparable categories. Budget data are compiled on a fiscal year basis. If the fiscal year differs from the calendar year, then ratios to GDP may be calculated by interpolating budget data from two adjacent fiscal years.

CAS Code # 21S1

### Composition of government expenses (for countries using GFS 2001 system)

*Source:* Group benchmarking data are from the World Development Indicators 2005. Latest country data are constructed from national sources or from IMF Article IV Reports: [www.imf.org/external/np/sec/aiv/index.htm](http://www.imf.org/external/np/sec/aiv/index.htm).

*Definition:* WDI 2005 disaggregates central government expenses into five categories: compensation of employees, goods and services, interest payments, subsidies and other transfers, and other expenses. The expense in each category is expressed as a percentage of total expenses.

*Coverage:* Data are available for about 42 USAID countries from the World Development Indicators 2005.

*CAS Code # 21S1*

### Composition of government revenue

*Source:* The latest country and comparison country data is taken from national data sources or from IMF Article IV Reviews: [www.imf.org/external/np/sec/aiv/index.htm](http://www.imf.org/external/np/sec/aiv/index.htm). Benchmarking data are taken directly from WDI 2005 database: (1) taxes on goods and services (% of revenue), series GC.TAX.GSRV.RV.ZS; (2) taxes on income, profits and capital gains (% of revenue), series GC.TAX.YPKG.RV.ZS; (3) taxes on international trade (% of revenue), series GC.TAX.INTT.RV.ZS; (4) other taxes (% of revenue), series GC.TAX.OTHR.RV.ZS; (5) social contributions (% of revenue), series GC.REV.SOCL.ZS; and (6) grants and other revenue (% of revenue), series GC.REV.GOTR.ZS.

*Definition:* Breakdown of central government revenue sources by categories outlined above. Each source of revenue is expressed as a percentage of total revenue.

*Coverage:* Data are available from WDI 2005 for about 46 USAID countries.

*Data Quality:* Many countries report their revenue in non-comparable categories. If the fiscal year differs from the calendar year, then the ratios to GDP may be calculated by interpolating budget data from two adjacent fiscal years.

*CAS Code # 21S2*

### Composition of money supply growth

*Source:* Constructed using or national data sources or IMF Article IV Reviews from:

[www.imf.org/external/np/sec/aiv/index.htm](http://www.imf.org/external/np/sec/aiv/index.htm).

*Definition:* Identifies the sources of the year to year change in the broad money supply (M2), disaggregated into five categories: (1) net credit to government, (2) credit to the private sector, (3) net credit to public enterprises, (4) net foreign assets (reserves), and (5) other items net. Each component is expressed as a percentage of the annual change (December to December) in M2.

*Coverage:* Data are available for about 86 USAID countries.

*CAS Code # 21S3*

### Government expense, percentage of GDP (for countries using GFS 2001 system)

*Source:* Benchmarking data obtained from World Development Indicators 2005 series GC.XPN.TOTL.GD.ZS. Original source of WDI data is the International Monetary Fund, International Financial Statistics Yearbook, World Bank and OECD estimates. Latest country data obtained from national sources or from IMF Article IV Reviews: [www.imf.org/external/np/sec/aiv/index.htm](http://www.imf.org/external/np/sec/aiv/index.htm);

*Definition:* Expense is an accrued obligation to pay for operating activities of the government in providing goods and services. It includes compensation of employees (such as

wages and salaries), interest and subsidies, grants, social benefits, and other expenses such as rent and dividends.<sup>1</sup>

*Coverage:* Data are available for about 42 USAID countries.

*CAS Code # 21P1*

### Government expenditure, percentage of GDP (for countries not using GFS 2001 system)

*Source:* Benchmarking data obtained from World Development Indicators 2004, series GB.XPD.TOTL.GD.ZS.<sup>2</sup> Original source of WDI data is the International Monetary Fund, Government Finance Statistics Yearbook, and World Bank estimates. Latest country data are obtained from national sources or IMF Article IV Reports: [www.imf.org/external/np/sec/aiv/index.htm](http://www.imf.org/external/np/sec/aiv/index.htm).

*Definition:* Total expenditure of the central government, as a percent of GDP.

*Coverage:* Data are available for about 41 USAID countries.

*CAS Code # 21S2*

### Government revenue, excluding grants, percentage of GDP

*Source:* Latest country data obtained from national data sources or IMF Article IV Reviews: [www.imf.org/external/np/sec/aiv/index.htm](http://www.imf.org/external/np/sec/aiv/index.htm). Benchmarking data from World Development Indicators 2005 series GC.REV.XGRT.GD.ZS. Original source of WDI data is the International Monetary Fund, Government Finance Statistics Yearbook and data file, and World Bank estimates.

*Definition:* Revenue consists of cash receipts from taxes, social contributions, and other revenues such as fines, fees, rent, and income from property or sales. Grants are also a form of revenue but are excluded here to focus on domestic revenue mobilization.

*Coverage:* Data are available for about 47 USAID countries.

*CAS Code # 21P2*

### Inflation rate

*Source:* IMF World Economic Outlook database, updated every 6 months, at:

<http://www.imf.org/external/ns/cs.aspx?id=28>

*Definition:* Inflation as measured by the consumer price index reflects the annual percentage change in the cost to the average consumer of acquiring a basket of goods and services that may be fixed or changed at specified intervals.

*Coverage:* Data are available for about 85 USAID countries.

*Data Quality:* For many developing countries, figures for recent years are IMF staff estimates. Additionally, data for some countries are for fiscal years.

*CAS Code #21P4*

### Money supply growth

*Source:* Latest country data are from national data sources or from IMF Article IV Reviews: [www.imf.org/external/np/sec/aiv/index.htm](http://www.imf.org/external/np/sec/aiv/index.htm). Benchmarking data are from World Development Indicators 2005, series FM.LBL.MQMY.ZG. Original source of WDI data is

<sup>1</sup> In the technical notes to WDI 2005, expense is defined as "cash payments." This is inconsistent with the original source, GFS, which defines expense on an accrual basis as indicated here.

<sup>2</sup> This variable is no longer available in WDI 2005.



International Monetary Fund, International Financial Statistics, and World Bank estimates.

*Definition:* Average annual growth rate in the broad money supply, M2 (money plus quasi-money) measured as the change in end-of-year totals relative to the preceding year. M2 comprises the sum of currency outside banks, checking account deposits other than those of the central government, and the time, savings, and foreign currency deposits of resident sectors other than the central government. M2 corresponds to the sum of lines 34 and 35 in the International Monetary Fund's (IMF) International Financial Statistics (IFS).

*Coverage:* Data are available for about 81 USAID countries.

*CAS Code #21P3*

## BUSINESS ENVIRONMENT

### Corruption perception index

*Source:* Transparency International:

[http://www1.transparency.org/cpi/2005/dnld/media\\_pack\\_en.pdf](http://www1.transparency.org/cpi/2005/dnld/media_pack_en.pdf).

*Definition:* Corruption Perceptions Index (CPI) is a composite index that ranks countries in terms of the degree to which corruption is perceived to exist among public officials and politicians. The index ranges from 1 (for most corruption) to 10 (for least corruption). Values below 3.0 are considered to indicate rampant corruption. This threshold is used in the template as an absolute benchmark standard.

*Coverage:* Data are available for about 79 USAID countries.

*Data Quality:* This indicator uses perception and opinions gathered from local businessmen as well as third-party experts and not hard empirical data; thus, the indicator is largely subjective. Also standard errors are large. For both reasons, international comparisons are problematic, though widely used.

*CAS Code # 22P1*

### Ease of doing business ranking

*Source:* World Bank, Doing Business Indicators  
<http://rru.worldbank.org/DoingBusiness/>

*Definition:* The ease of doing business index ranks economies from 1 to 155. The index is calculated as the ranking on the simple average of country percentile rankings on each of the 10 topics covered in Doing Business in 2006 – starting a business, dealing with licenses, hiring and firing, registering property, getting credit, protecting investors, paying taxes, trading across borders, enforcing contracts, and closing a business.

*Coverage:* Data are available for about 74 USAID countries.

*CAS Code # 22P2*

### Rule of law index

*Source:* World Bank Institute,

<http://www.worldbank.org/wbi/governance/govdata2002/index.html>. This indicator is based on the perceptions of the legal system, drawn from 12 separate data sources.

*Definition:* The Rule of Law Index is an aggregation of various indicators which measure the extent to which agents have confidence in and abide by the rules of society. Index ranges from -2.5 (for very poor performance) to +2.5 (for excellent performance).

*Coverage:* Data are available for nearly all USAID countries.

*Data Quality:* This index is best used with caution for relative comparisons between countries in a single year,

because the standard errors are large. It is also difficult to use the index to track a country's progress over time because the index does not compensate for changes in the world average. For instance, if the world average decreases in a given year, a country whose score appears to increase may not actually have tangible improvements in their legal environment.

*CAS Code #22P3*

### Regulatory Quality Index

*Source:* World Bank Institute;

<http://www.worldbank.org/wbi/governance/govdata2002/index.html>.

*Definition:* The regulatory quality index measures the incidence of market-unfriendly policies such as price controls or inadequate bank supervision, as well as perceptions of the burdens imposed by excessive regulation in areas such as foreign trade and business development. It is computed from survey data from multiple sources. The index values range from -2.5 (for very poor performance) to +2.5 (for excellent performance).

This is also an MCC indicator, under the criterion of encouraging economic freedom. The MCC rescales the values as percentile rankings relative to the set of MCA eligible countries, ranging from a value from 0 (for very poor performance) to 100 (for excellent performance). Some country reports use the MCC scaling.

*Gaps:* Data are available for nearly all USAID countries.

*Data Quality:* This index is best used with caution for relative comparisons between countries in a single year, because the standard errors are large. It is also difficult to use the index to track a country's progress over time because the index does not compensate for changes in the world average. For instance, if the world average decreases in a given year, a country whose score appears to increase may not actually have tangible improvements in their legal environment.

*CAS Code #22P4*

### Cost to start a business, % of GNI per capita

*Source:* World Bank, Doing Business; Starting a Business category:

<http://rru.worldbank.org/DoingBusiness/ExploreTopics/StartingBusiness/CompareAll.aspx>

*Definition:* Legally required cost to starting a simple limited liability company, expressed as percentage of GNI per capita.

*Coverage:* Data are available for about 74 USAID countries.

*CAS Code #22S1*

### Procedures to enforce a contract

*Source:* World Bank, Doing Business; Enforcing Contracts category:

<http://rru.worldbank.org/DoingBusiness/ExploreTopics/EnforcingContracts/CompareAll.aspx>

*Definition:* Number of procedures required to enforce recovery of a valid debt contract through the court system. Where a procedure is defined as any interactive step the company must undertake with the government agencies, lawyers, notaries, etc. to proceed with the enforcement action.

*Coverage:* Data are available for about 74 USAID countries.

*CAS Code # 22S2*

### Procedures to register property

*Source:* World Bank, Doing Business; Registering Property category:

<http://rru.worldbank.org/DoingBusiness/ExploreTopics/RegisteringProperty/CompareAll.aspx>

*Definition:* Number of procedures required to register the transfer of title for business property. A procedure is defined as any step involving interaction between a company/individual and a third party that is necessary to complete the property registration process.

*Coverage:* Data are available for about 74 USAID countries.

*CAS Code #22S3*

#### **Procedures to start a business**

*Source:* World Bank, Doing Business; Starting a Business category:

<http://rru.worldbank.org/DoingBusiness/ExploreTopics/StartingBusiness/CompareAll.aspx>

*Definition:* Number of procedural steps required to legalize a simple limited liability company. Procedures are interactions of a company with the government agencies, lawyers, auditors, notaries, and the like, including interactions required to obtain necessary permits and licenses and to complete all inscriptions, verifications, and notifications to start operations.

*Coverage:* Data are available for about 74 USAID countries.

*CAS Code # 22S4*

#### **Time to enforce a contract**

*Source:* World Bank, Doing Business; Enforcing Contracts category:

<http://rru.worldbank.org/DoingBusiness/ExploreTopics/EnforcingContracts/CompareAll.aspx>

*Definition:* Minimum number of days required to enforce a contract through the court system.

*Coverage:* Data are available for about 74 USAID countries.

*CAS Code # 22S5*

#### **Time to register property**

*Source:* World Bank, Doing Business; Registering Property category:

<http://rru.worldbank.org/DoingBusiness/ExploreTopics/RegisteringProperty/CompareAll.aspx>

*Definition:* The time required to accomplish the full sequence of procedures to transfer the property title from the seller to the buyer when a business purchases land and a building in a peri-urban area of the country's most populous city. Every required procedure is included whether it is the responsibility of the seller, the buyer, or where it is required to be completed by a third party on their behalf.

*Coverage:* Data are available for about 74 USAID countries.

*CAS Code #22S6*

#### **Time to start a business**

*Source:* World Bank, Doing Business; Starting a Business category:

<http://rru.worldbank.org/DoingBusiness/ExploreTopics/StartingBusiness/CompareAll.aspx>

*Definition:* Calendar days needed to complete the required procedures for legally operating a business. If a procedure can be speeded up at additional cost, the fastest procedure, independent of cost, is chosen.

*Coverage:* Data are available for about 74 USAID countries.

*CAS Code #22S7*

## **FINANCIAL SECTOR**

### **Cost to Create Collateral**

*Source:* World Bank Doing Business; Getting Credit category:

<http://rru.worldbank.org/DoingBusiness/ExploreTopics/GettingCredit/CompareAll.aspx>

*Definition:* The indicator assesses the cost of creating and registering collateral as a percentage of income per capita.

*Coverage:* Data are available for about 74 USAID countries.

*Data Quality:* Countries without a collateral registry usually have lower costs, although the secured creditor is disadvantaged elsewhere because they are unable to notify other creditors of their right to the collateral through a registry.

*CAS Code #23S1*

### **Country credit rating**

*Source:* Millennium Challenge Corporation. Original data comes from the Institutional Investor Magazine. <http://www.mca.gov/countries/rankings/index.shtml>.

*Definition:* Bankers' and fund managers' perception of the country's risk of default based on a semi-annual survey. Index ranges in value from 0 (for very poor performance) to 100 (for excellent performance).

*Coverage:* Data are available for about 58 USAID countries.

*Data Quality:* The indicator is subjective, as it is based on an opinion poll.

*CAS Code # 23S2*

### **Domestic credit to private sector, percent of GDP**

*Source:* IMF Article IV Reviews or national data sources for latest country data; World Development Indicators 2005 series FS.AST.PRVT.GD.ZS for benchmarking data. The WDI data originate from the International Monetary Fund, International Financial Statistics and data files, and World Bank estimates.

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

*Coverage:* Data are available for about 82 USAID countries.

*CAS Code # 23P1*

### **Interest rate spread**

*Source:* World Development Indicators 2005 series FR.INR.LNDP. Original data from International Monetary Fund, International Financial Statistics and data files.

*Definition:* The difference between the average lending and borrowing interest rates charged by commercial or similar banks on domestic currency deposits.

*Coverage:* Data are available for about 66 USAID countries.

*CAS Code # 23P2*

### **Legal rights of borrowers and lenders**

*Source:* World Bank Doing Business; Getting Credit category:

<http://rru.worldbank.org/DoingBusiness/ExploreTopics/GettingCredit/CompareAll.aspx>. The index is based on data collected through research of collateral and insolvency laws supported by survey data on secured transactions laws.

*Definition:* The index measures the degree to which collateral and bankruptcy laws facilitate lending. Index ranges in value from 0 (for very poor performance) to 10 (for excellent performance). It includes three aspects related to legal rights in bankruptcy, and seven aspects found in collateral law.

*Coverage:* Data are available for about 74 USAID countries.

CAS Code # 23S3

### Money supply, percent of GDP

*Source:* Latest country data obtained from national data sources or IMF Article IV Reviews:

[www.imf.org/external/np/sec/aiv/index.htm](http://www.imf.org/external/np/sec/aiv/index.htm). Benchmarking data from World Development Indicators 2005 series FM.LBL.MQMY.GD.ZS. WDI data originate from International Monetary Fund, International Financial Statistics and data files, and World Bank and OECD GDP estimates.

*Definition:* Money supply (M2), also called broad money, and is defined as non-bank private sector's holdings of notes, coins and demand deposits plus savings deposits and foreign currency deposits. Ratio of M2 to GDP is calculated to assess the degree of monetization of an economy.

*Coverage:* Data are available for about 81 USAID countries.

*Data Quality:* In some countries M2 includes Certificates of Deposits (CDs), money market instruments, and/or treasury bills.

CAS Code # 23P3

### Real interest rate

*Source:* World Development Indicators 2005 series FR.INR.RINR.

*Definition:* Real interest rate is the lending interest rate adjusted for inflation, as measured by the GDP deflator.

*Coverage:* Data are available for about 68 USAID countries.

CAS Code # 23S4

### Stock Market Capitalization Rate, % of GDP

*Source:* World Development Indicators 2005, series CM.MKT.LCAP.GD.ZS.

*Definition:* The variable is defined as the market capitalization, also known as market value (the share price times the number of shares outstanding), of all the domestic shares listed on the country's stock exchange as a percentage of GDP.

*Coverage:* Data are available for about 54 USAID countries.

CAS Code # 23P4

## EXTERNAL SECTOR

### Aid, % of GNI

*Source:* Latest country data obtained from national data sources or IMF Article IV Reviews:

[www.imf.org/external/np/sec/aiv/index.htm](http://www.imf.org/external/np/sec/aiv/index.htm). Benchmarking data from World Development Indicators 2005 series DT.ODA.ALLD.GN.ZS.

*Definition:* The indicator measures Official Development Assistance from OECD countries and official aid from non-OECD countries, as a percentage of the recipient's gross national income.

*Coverage:* Data are available for about 84 USAID countries.

*Data Quality:* Data does not include aid given by recipient countries to other recipient countries, and may not be

consistent with the country's balance sheets, because data are collected from donors.

CAS Code #24P1

### Concentration of exports

*Source:* Constructed with ITC COMTRADE data by aggregating the value for the top 3 export product groups (SITC Rev.3), and dividing by total exports. Raw data: <http://www.intracen.org/tradstat/sitc3-3d/indexre.htm>.

*Definition:* The percentage of a country's total merchandise exports consisting of the top three products, disaggregated at the SITC (Rev. 3) 3-digit-level.

*Coverage:* Available for about 74 USAID countries.

*Data Quality:* Smuggling represents a serious problem in a number of countries. For countries that do not report trade data to the United Nations, ITC uses partner country data. There are a number of shortcomings with this approach: ITC does not cover trade with other non-reporting countries; trans-shipments may hide the actual source of supply; and reporting standards include transport cost and insurance in measuring exports but exclude these items when measuring imports.

CAS Code # 24S1

### Current Account Balance, percent of GDP

*Source:* Latest country data from national data sources or IMF Article IV Reviews:

[www.imf.org/external/np/sec/aiv/index.htm](http://www.imf.org/external/np/sec/aiv/index.htm). Benchmarking data from World Development Indicators 2005 series BN.CAB.XOKA.GD.ZS, based on International Monetary Fund, Balance of Payments Statistics Yearbook and data files, and World Bank staff estimates, and World Bank and OECD GDP estimates.

*Definition:* Current account balance is the sum of net exports of goods, services, net income, and net current transfers. It is presented here as a percentage of a country's gross domestic product.

*Coverage:* Data are available for about 79 USAID countries.

CAS Code # 24P2

### Debt service ratio

*Source:* Latest country data obtained from national data sources or IMF Article IV Reviews:

[www.imf.org/external/np/sec/aiv/index.htm](http://www.imf.org/external/np/sec/aiv/index.htm). Benchmarking data from World Development Indicators 2005, series DT.TDS.DECT.EX.ZS, based on World Bank, Global Development Finance data.

*Definition:* Total debt service is the sum of principal repayments and interest actually paid in foreign currency, goods, or services on long-term debt, interest paid on short-term debt and repayments (repurchases and charges) to the IMF. Debt is considered as a percent of exports of goods and services, which includes income and workers' remittances.

*Coverage:* Data are available for about 77 USAID countries.

*Data Quality:* See data quality comments to the Present value of debt, percent of GNI regarding quality of debt data reported.

CAS Code # 24P3

### Foreign Direct Investment, percent of GDP

*Source:* Latest country data obtained from national data sources or IMF Article IV Reviews:

[www.imf.org/external/np/sec/aiv/index.htm](http://www.imf.org/external/np/sec/aiv/index.htm). Benchmarking data from World Development Indicators 2005, series

BX.KLT.DINV.DT.GD.ZS, based on International Monetary Fund, International Financial Statistics and Balance of Payments databases, World Bank, Global Development Finance, and World Bank and OECD GDP estimates.

*Definition:* Foreign direct investment is the net inflow of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments. This series shows net inflows in the reporting economy.

*Coverage:* Data are available for about 82 USAID countries.  
CAS Code #24P5

#### **Gross international reserves, months of imports**

*Source:* Latest country data obtained from national data sources or IMF Article IV Reviews:

[www.imf.org/external/np/sec/aiv/index.htm](http://www.imf.org/external/np/sec/aiv/index.htm). Benchmarking data from World Development Indicators 2005, series FL.RES.TOTL.MO.

*Definition:* Gross international reserves comprise holdings of monetary gold, special drawing rights (SDRs), the reserve position of members in the International Monetary Fund (IMF), and holdings of foreign exchange under the control of monetary authorities expressed in terms of the number of months of imports of goods and services.

*Coverage:* Data are available for about 77 USAID countries.  
CAS Code # 24P6

#### **Private capital inflows, percent of GDP**

*Source:* Latest country data obtained from national data sources or IMF Article IV Reviews:

[www.imf.org/external/np/sec/aiv/index.htm](http://www.imf.org/external/np/sec/aiv/index.htm). Benchmarking data derived from the International Financial Statistics (sum of lines 78BED and 78BGD, divided by GDP).

*Definition:* Private capital inflows flows are the sum of the absolute values of direct and portfolio investment inflows recorded in the balance of payments financial account. The indicator is calculated as a ratio to GDP in U.S. dollars.

*Coverage:* Information on coverage is not easily accessible.  
*Data Quality:* Capital flows are converted to U.S. dollars at the International Monetary Fund's average official exchange rate for the year shown.  
CAS Code #24P7

#### **Exports growth, goods and services**

*Source:* Latest country data obtained from national data sources or IMF Article IV Reviews:

[www.imf.org/external/np/sec/aiv/index.htm](http://www.imf.org/external/np/sec/aiv/index.htm). Benchmarking data from World Development Indicators 2005, series NE.EXP.GNFS.KD.ZG, based on World Bank national accounts data, and OECD National Accounts data files.

*Definitions:* Annual growth rate of exports of goods and services based on constant local currency units. Exports include the value of merchandise, freight, insurance, transport, travel, royalties, license fees, and other services, such as communication, construction, financial, information, business, personal, and government services. They exclude labor and property income (formerly called factor services), as well as transfer payments.

*Coverage:* Data are available for about 81 USAID countries.  
CAS Code # 24P4

#### **Inward FDI Potential Index**

*Source:* UNCTAD. Indicator is available online at <http://www.unctad.org/Templates/WebFlyer.asp?intItemID=2471&lang=1>.

*Definition:* Inward FDI Potential Index measures an economy's attractiveness to foreign investors, capturing factors (apart from market size) that are expected to have an impact. The Index ranges in value from 0 (for very poor performance) to 1 (for excellent performance). It is an un-weighted average of the scores of 12 normalized economic and social variables.

*Coverage:* Data are available for about 77 USAID countries.  
CAS Code # 24S2

#### **Net barter terms of trade**

*Source:* World Development Indicators 2005, series TT.PRI.MRCH.XD.WD

*Definition:* Net barter terms of trade are calculated as the ratio of the export price index to the corresponding import price index measured relative to the base year 1995.

*Coverage:* Data are available for about 51 USAID countries.  
CAS Code # 24S3

#### **Present value of debt, percent of GNI**

*Source:* World Development Indicators 2005 series DT.DOD.PVLX.GN.ZS, based on Global Development Finance data.

*Definition:* Present value of debt is the sum of short-term external debt plus the discounted sum of total debt service payments due on public, publicly guaranteed, and private non-guaranteed long-term external debt over the life of existing loans. Indicator measures the value of debt relative to the GNI.

*Coverage:* Data are available for about 80 USAID countries.  
*Data Quality:* The coverage, and quality of debt data vary widely across countries due to the wide spectrum of debt instruments, the unwillingness on the part of the government to provide information, and lack of capacity in reporting. Discrepancies are significant when the exchange rate fluctuations, debt cancellations and re-scheduling occur.  
CAS Code # 24P8

#### **Real effective exchange rate (REER)**

*Source:* IMF Article IV Reviews:

[www.imf.org/external/np/sec/aiv/index.htm](http://www.imf.org/external/np/sec/aiv/index.htm);

*Definition:* The REER is an index number with base 1995=100, which measures the value of a currency against a weighted average of foreign currencies. It is calculated as the nominal effective exchange rate divided by a price deflator or index of costs. The IMF defines the REER so that an increase in the value represents a real appreciation of the home currency, and a decrease represents a real depreciation.

*Coverage:* Information on coverage is not easily accessible.  
*Data Quality:* Changes in real effective exchange rates should be interpreted with caution. For many countries the weights from 1990 onward take into account trade in 1988-90, and an index of relative changes in consumer prices is used as the deflator.

CAS Code # 24S4

#### **Remittances receipts, percent of exports**

*Source:* Latest country data obtained from national data sources or IMF Article IV Reviews:



[www.imf.org/external/np/sec/aiv/index.htm](http://www.imf.org/external/np/sec/aiv/index.htm). Benchmarking data is obtained from World Development Indicators 2005. It is constructed by dividing Worker's Remittances (receipts), series BX.TRF.PWKR.CD, by Exports of Goods and Services, series BX.GSR.GNFS.CD.

*Definition:* Workers' remittances are current transfers by migrants who are employed or intend to remain employed for more than a year in another economy in which they are considered residents. The indicator is the ratio of remittances to exports.

*Coverage:* Data are available for about 74 USAID countries.

*CAS Code # 24P9*

### Structure of merchandise exports

*Source:* World Development Indicators 2005. Exports from five categories are used: Food exports series TX.VAL.FOOD.ZS.UN; Agricultural raw materials exports series TX.VAL.AGRI.ZS.UN; Manufactures exports series TX.VAL.MANF.ZS.UN; Ores and metals exports series TX.VAL.MMTL.ZS.UN; and Fuel exports series TX.VAL.FUEL.ZS.UN.

*Definition:* This indicator reflects the composition of merchandise exports by major commodity groups – food, agricultural raw materials, fuels, ores and metals, and manufactures.

*Coverage:* Data are available for about 78 USAID countries.

*Data Quality:* The classification of commodity groups follows the Standard International Trade Classification (SITC) revision 1, but most countries report using later revisions of the SITC. Tables are used to convert data reported in one system to another and this may introduce errors of classification. Shares may not sum to 100 percent because of unclassified trade.

*CAS Code # 24S5*

### Trade in goods and services, as a percentage of GDP

*Source:* Latest country data obtained from national data sources or IMF Article IV Reviews:

[www.imf.org/external/np/sec/aiv/index.htm](http://www.imf.org/external/np/sec/aiv/index.htm). Benchmarking data from World Development Indicators 2005, series NE.TRD.GNFS.ZS.

*Definition:* The sum of exports and imports of goods and services divided by the value of GDP, all expressed in current U.S. dollars.

*Coverage:* Data available for about 84 USAID countries.

*CAS Code # 24P10*

### Trade Policy Index

*Source:* Index of Economic Freedom, Heritage Foundation. The Trade Policy Score (Index) is one of the components of the Index of Economic Freedom. The indices can be found at <http://www.heritage.org/research/features/index/downloads.cfm>.

*Definition:* The index measures the degree to which government hinders the free flow of foreign commerce based on a country's weighted average tariff rate (weighted by imports from the country's trading partners), with adjustments for non-tariff barriers and corruption in the custom service. The index ranges in value from 1 (for low levels of barriers to trade) to 5 (for high levels of barriers to trade).

*Coverage:* Data are available for about 83 USAID countries.

*Data Quality:* The index is subjective and at times inconsistent in its treatment of tariffs.

*CAS Code # 24S6*

## ECONOMIC INFRASTRUCTURE

### Internet users per 1,000 people

*Source:* World Development Indicators 2005 series IT.NET.USER.P3, derived from the International Telecommunication Union database.

*Definition:* Indicator quantifies the number of internet users, defined as those with access to the world-wide network, per 1,000 people.

*Coverage:* Data are available for about 88 USAID countries.

*CAS Code # 25P1*

### Overall Infrastructure Quality

*Source:* Global Competitiveness Report 2005-2006, World Economic Forum. The indicator can be found in the Data Tables, Section V. General Infrastructure; 5.01.

*Definition:* The index measures executives' perceptions of general infrastructure in their respective country. Executives grade, on a scale from 1 to 7, whether general infrastructure in their country is (1) poorly developed, or (7) among the best in the world.

*Coverage:* Data are available for about 52 USAID countries.

*Data Quality:* Comparisons between countries are difficult, since the data are based on executives' perceptions.

*CAS Code # 25P2*

### Telephone density, fixed line and mobile

*Source:* World Development Indicators 2005 series IT.TEL.TOTL.P3, derived from the International Telecommunication Union database..

*Definition:* The indicator is the sum of subscribers to telephone mainlines and mobile phones per 1,000 people. Fixed lines represent telephone mainlines connected to the public switched telephone network. Mobile phone subscribers refer to users of cellular based technology with access to the public switched telephone network.

*Coverage:* Data are available for about 88 USAID countries.

*CAS Code #25P3*

### Quality of infrastructure - railroads, ports, air transport and electricity

*Source:* Global Competitiveness Report 2005-2006, World Economic Forum. The indicators can be found in the Data Tables, Section V. General Infrastructure; 5.02, 5.03, 5.04, and 5.05 for Railroad, Port; Air Transport, and Electricity, respectively.

*Definitions:* The index measures executives' perceptions of general infrastructure in their respective country. Executives grade, on a scale from 1 to 7, whether railroads, ports, air transport, and electricity are (1) poorly developed, or (7) among the best in the world.

*Coverage:* Data are available for about 52 USAID countries.

*Data Quality:* Comparisons between countries are difficult, since the data are based on executive perceptions.

*CAS Code #25S1*

### Telephone cost, average local call

*Source:* World Development Indicators 2005 series IT.MLT.CLCL.CD, , derived from the International Telecommunication Union database.

*Definition:* Cost of local call is measured by the cost of a three-minute, peak rate, fixed line call within the same

exchange area using the subscriber's equipment (i.e., not from a public phone).

*Coverage:* Data are available for about 82 USAID countries.  
*CAS Code #25S2*

## SCIENCE AND TECHNOLOGY

### Expenditure in Research and Development, percent of GDP

*Source:* World Development Indicators 2005, series GB.XPD.RSDV.GD.ZS, based on data from the UNESCO Institute of Statistics.

*Definition:* Expenditures for research and development are current and capital expenditures (both public and private) on creative, systematic activity that increases the stock of knowledge. Included are fundamental and applied research and experimental development work leading to new devices, products, or processes.

*Coverage:* Data are available for about 26 USAID countries.  
*CAS Code #26P1*

### FDI technology transfer index

*Source:* Global Competitiveness Report 2005-2006, World Economic Forum. The indicator can be found in the Data Tables, Section III. Technology: Innovation and Diffusion; 3.04.

*Definition:* The index measures executives' perceptions of FDI as a source of new technology for the country. Executives grade, on a scale from 1 to 7, whether foreign direct investment in their country (1) brings little new technology, or (7) is an important source of new technology.

*Coverage:* Data are available for about 52 USAID countries.

*Data Quality:* Comparisons between countries are difficult, since the data are based on executive perceptions.

*CAS Code #26P2*

### Patent applications filed, by residents

*Source:* World Development Indicators 2005 series IP.PAT.RESD, based on WIPO data.

*Definition:* The indicator is the number of applications filed by host-country residents with the national patent office for exclusive rights for an invention – a product or process that provides a new way of doing something or offers a new technical solution to a problem.

*Coverage:* Data are available for about 63 USAID countries.  
*CAS Code #26P3*

## HEALTH

### HIV prevalence rate

*Source:* UNAIDS for most recent country data:

<http://www.unaids.org/Unaid/EN/Resources/epidemiology.asp>. World Development Indicators 2005 for benchmark data, series SH.DYN.AIDS.ZS.

*Definition:* Percentage of people ages 15-49 who are infected with HIV.

*Coverage:* Data are available for about 79 USAID countries.

*Data Quality:* UNAIDS/WHO estimates are based on all available data, including surveys of pregnant women, population-based surveys, household surveys conducted by

Kenya, Mali, Zambia and Zimbabwe, as well as other surveillance information.

*CAS Code #31P1*

### Life expectancy at birth

*Source:* World Development Indicators 2005, (SP.DYN.LE00.IN)

*Definition:* Life expectancy at birth indicates the number of years a newborn infant would live on average if prevailing patterns of mortality at the time of its birth were to stay the same throughout its life.

*Coverage:* Data are available for about 88 USAID countries.

*Data Quality:* Life expectancy at birth is estimated based on vital registration or the most recent census/survey. Extrapolations may not be reliable for monitoring changes in health status or for comparative analytical work.

*CAS Code #31P2*

### Maternal mortality rate

*Source:* UN Millennium Indicators Database, [http://millenniumindicators.un.org/unsd/mi/mi\\_series\\_results.asp?rowId=553](http://millenniumindicators.un.org/unsd/mi/mi_series_results.asp?rowId=553) based on WHO, UNICEF and UNFPA data.

*Definition:* The indicator is the number of women who die during pregnancy and childbirth, per 100,000 live births.

*Coverage:* Data are available for about 87 USAID countries.

*Data Quality:* Household surveys attempt to measure maternal mortality by asking respondents about survivorships of sisters. The estimates pertain to 12 years or so before the survey, making them unsuitable for monitoring recent changes.

*CAS Code #31P3*

### Access to improved sanitation

*Source:* World Development Indicators 2005, series SH.STA.ACSN.

*Definition:* The indicator is the percentage of population with at least adequate excreta disposal facilities (private or shared, but not public) that can effectively prevent human, animal, and insect contact with excreta.

*Coverage:* Data are available for about 82 USAID countries.

*Data Quality:* The coverage rates are based on service users on the facilities their households use, rather than on information service providers who may include nonfunctioning systems—therefore somewhat reliable.

*CAS Code #31S1*

### Access to improved water source

*Source:* World Development Indicators 2005 series SH.H2O.SAFE.ZS

*Definition:* The indicator is 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 rain water collection.

*Coverage:* Data are available for about 83 USAID countries.

*Data Quality:* Access to drinking water from an improved source does not ensure that the water is adequate or safe.

*CAS Code #31S2*

### Births attended by skilled health personnel

*Source:* World Development Indicators 2005, series SH.STA.BRTC.ZS.

*Definition:* The indicator is 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 interviews on their own, and to care for newborns.

*Coverage:* Data are available for about 62 USAID countries.

*Data Quality:* Data may not reflect improvements in maternal health, maternal deaths are underreported and rates of maternal mortality are difficult to measure.

*CAS Code # 31S3*

### **Child immunization rate**

*Source:* World Development Indicators 2005, estimated by averaging two series: Immunization, DPT (% of children ages 12-23 months) (SH.IMM.IDPT) and Immunization, measles (% of children ages 12-23 months) (SH.IMM.MEAS)

*Definition:* Percentage of children under one year receiving vaccination coverage for four diseases-measles and diphtheria, pertussis (whooping cough), and tetanus (DDPT).

*Coverage:* Data are available for about 88 USAID countries.

*CAS Code #31S4*

### **Prevalence of child malnutrition, weight for age**

*Source:* World Development Indicators 2005, series SH.STA.MALN.ZS.

*Definition:* The indicator is based on percentage of children under five whose weight for age is more than minus two standard deviations below the median for the international reference population ages 0-59 months.

*Coverage:* Data are available for about 55 USAID countries.

*CAS Code # 31S5*

### **Public health expenditure, percent of GDP**

*Source:* Latest data for host country is obtained from the MCC <http://www.mca.gov/countries/rankings/index.shtml>.

International benchmarking data from World Development Indicators 2005, (SH.XPD.PUBL.ZS), based on World Health Organization, World Health Report and updates and from the OECD, supplemented by World Bank poverty assessments and country and sector studies.

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

*Coverage:* Data are available for about 88 USAID countries.

*CAS Code #31S6*

## **EDUCATION**

### **Net primary enrollment rate - female, male and total**

*Source:* UNESCO Institute for Statistics, <http://stats.uis.unesco.org/ReportFolders/reportfolders.aspx>

*Definition:* The indicator measures the proportion of the population of the official age for primary, secondary or tertiary education according to national regulations who are enrolled in primary schools. 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.

*Coverage:* Data are available for about 80 USAID countries.

*Data Quality:* Enrollment rates are based on data collected during annual school surveys, which are typically conducted at the beginning of the school year, and do not reflect actual rates of attendance during the school year. In addition, school administrators may report exaggerated enrollments as often teachers are paid proportional to the number of pupils enrolled. The indicator does not measure the quality of the education provided.

*CAS Code # 32P1*

### **Persistence to grade 5 – female, male, and total**

*Source:* World Development Indicators 2005 series SE.PRM.PRS5.FE.ZS (female); SE.PRM.PRS5.MA.ZS (male); and SE.PRM.PRS5.ZS (total).

*Definition:* The indicator is an estimate of the proportion of the population entering primary school who reach grade 5, for female, male, and total students.

*Coverage:* Data are available for about 48 USAID countries.

*CAS Code # 32P2*

### **Youth literacy rate**

*Source:* World Development Indicators 2005, series SE.ADT.1524.LT.ZS.

*Definition:* The indicator is an estimate of the percent of people ages 15-24 who can, with understanding, read and write a short, simple statement on their everyday life.

*Coverage:* Data are available for about 67 USAID countries.

*Data Quality:* Statistics are out of date by 2-3 years.

*CAS Code #32P3*

### **Expenditure on primary education, percent GDP**

*Source:* Millennium Challenge Corporation <http://www.mca.gov/countries/rankings/index.shtml>

*Definition:* The indicator is the total expenditures on education by all levels of government, as a percent of GDP.

*Coverage:* Data are available for about 58 USAID countries.

*Data Quality:* The MCC obtains the data from national sources via US embassies.

*CAS Code #32S1*

### **Educational expenditure per student, percentage GDP per capita – Primary, Secondary and Tertiary**

*Source:* World Development Indicators 2005 series SE.XPD.PRIM.PC.ZS (primary); SE.XPD.SECO.PC.ZS (secondary); and SE.XPD.TERT.PC.ZS (tertiary).

*Definition:* Public expenditure per student (primary, secondary or tertiary) is defined as the public current expenditure on education divided by the total number of students, by level, as a percentage of GDP per capita.

*Coverage:* Data are available for about 50, 47, and 45 USAID countries (for primary, secondary, and tertiary expenditure, respectively).

*Data Quality:* Education statistics should be interpreted with caution because the data are out of date by 2 or 3 years; also, the statistics reflects solely public spending, generally excluding spending by religious schools, which play a significant role in many developing countries. Data for some countries and for some years refer to spending by the ministry of education only.

*CAS Code # 32S2*

### **Pupil-teacher ratio, primary school**

*Source:* World Development Indicators 2005 series SE.PRM.ENRL.TC.ZS.

*Definition:* Primary school pupil-teacher ratio is the number of pupils enrolled in primary school divided by the number of primary school teachers (regardless of their teaching assignment).

*Coverage:* Data are available for about 76 USAID countries.

*Data Quality:* The indicator does not take into account differences in teachers' academic qualifications, pedagogical training, professional experience and status, teaching methods, teaching materials and variations in classroom conditions – all factors that could also affect the quality of teaching/learning and pupil performance.

*CAS Code # 32S3*

## **EMPLOYMENT AND WORKFORCE**

### **Labor force participation rate – total, male, female**

*Source:* Derived from World Development Indicators, but the precise computation differs depending on whether a particular country study uses the 2004 or 2005 WDI.

To calculate the *total* labor force participation rate using WDI 2004: the numerator is Labor force, total (SL.TLF.TOTL.IN), and the denominator is Population ages 15-64, total (SP.POP.1564.TO). Using WDI 2005, the denominator is calculated as the total population (SP.POP.TOTL) times the percentage of the population in the age group 15-64 (SP.POP.1564.IN.ZS).

To calculate the *female* labor force participation rate using WDI 2004: the numerator is the Labor force, female (% of total labor force) (SL.TLF.TOTL.FE.ZS) times Labor force, total (SL.TLF.TOTL.IN); the denominator is simply Population ages 15-64, female (SP.POP.1564.FE.IN). Using WDI 2005, the denominator (female population, ages 15-64), can only be estimated by multiplying the total population (SP.POP.TOTL) times the percentage of the population ages 15-64 (SP.POP.1564.IN.ZS) times the percentage of females in the total population (SP.POP.TOTL.FE.ZS).

To calculate the *male* labor force participation rate using WDI 2004: the numerator is calculated by subtracting the female labor force, derived above, from the total labor force (SL.TLF.TOTL.IN). The denominator is Population ages 15-64, male (SP.POP.1564.MA.IN). Using WDI 2005, the denominator is an estimated of the male population, ages 15-64, calculated as the total population (SP.POP.TOTL) times the percentage ages 15-64 (SP.POP.1564.IN.ZS) times the percentage of males in the total population, where the final factor is computed as 100 minus the percentage of females in the total population (SP.POP.TOTL.FE.ZS)..

*Definition:* The percentage of the working age population that is in the labor force. The labor force comprises people who meet the International Labour Organization definition of the economically active population: all people who supply labor for the production of goods and services during a specified period. It includes both the employed and the unemployed.

*Coverage:* Data are available for about 88 USAID countries.

*CAS Code #33P1*

### **Rigidity of employment index**

*Source:* World Bank, Doing Business in 2005, Hiring and Firing Workers Category:

<http://rru.worldbank.org/DoingBusiness/ExploreTopics/HiringFiringWorkers/CompareAll.aspx>

*Definition:* Rigidity of employment index is a measure of labor market rigidity constructed as the average of the Difficulty of Hiring Index, Rigidity of Hours Index and a Difficulty of firing Index. Index ranges in value from 0 (minimum rigidity) to 100 (maximum rigidity).

*Coverage:* Data are available for about 74 USAID countries.

*Data Quality:* Sub-indices are compiled by the World Bank from survey responses by in-country specialists.

*CAS Code # 33P2*

### **Size and growth of the labor force**

*Source:* Size of labor force from World Bank Development Indicators (SL.TLF.TOTL.IN); annual percentage change calculated from size data.

*Definition:* The indicator measures the size of the labor supply, and its annual percent change. Labor force comprises of people who meet the International Labour Organization definition of the economically active population: all people who are able to supply labor for the production of goods and services during a specified period, including both employed and the unemployed. While national practices vary in the treatment of such groups as the armed forces and seasonal or part-time workers; in general, the labor force includes the armed forces, the unemployed, and first-time job-seekers, but excludes homemakers and other unpaid caregivers and workers in the informal sector.

*Coverage:* Data are available for about 88 USAID countries.

*CAS Code #33P3*

### **Unemployment rate**

*Source:* World Development Indicators 2005 series SL.UEM.TOTL.ZS.

*Definition:* The unemployment rate refers to the share of the labor force that is without work but available for and seeking employment. For this purpose, informal sector workers and own-account workers (including subsistence farmers) are counted as being employed.

*Coverage:* Data are available for about 50 USAID countries.

*Data Quality:* Definitions of labor force and unemployment differ by country, making international comparisons inaccurate.

*CAS Code # 33P4*

## **AGRICULTURE**

### **Agriculture value added per worker**

*Source:* World Development Indicators 2005 series EA.PRD.AGRI.KD, derived from World Bank national accounts files and Food and Agriculture Organization, Production Yearbook and data files.

*Definition:* Agriculture value added per worker is a basic measure of labor productivity in agriculture. Value added in agriculture measures the output of the agricultural sector (ISIC divisions 1-5) – forestry, hunting, fishing, cultivation of crops, and livestock production – less the value of intermediate inputs. Data are in constant 1995 U.S. dollars.

*Coverage:* Data are available for about 80 USAID countries.

*CAS Code # 34P1*

### **Cereal yield**

*Source:* World Development Indicators 2005 series AG.YLD.CREL.KG based on Food and Agriculture Organization (FAO), Production Yearbook and data files.

*Definition:* Cereal yield is measured as kilograms per hectare of harvested land, 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.

*Coverage:* Data are available for about 84 USAID countries.

*Data Quality:* Data on cereal yield may be affected by a variety of reporting and timing differences. The FAO allocates production data to the calendar year in which the bulk of the harvest took place. But most of a crop harvested near the end of a year will be used in the following year. Cereal crops harvested for hay or harvested green for food, feed, or silage, and those used for grazing, are generally excluded. But millet and sorghum, which are grown as feed for livestock and poultry in Europe and North America, are used as food in Africa, Asia, and countries of the former Soviet Union. So some cereal crops are excluded from the data for some countries and included elsewhere, depending on their use.

*CAS Code # 34P2*

### **Growth in agricultural value added**

*Source:* The latest country data are taken from national data sources or from IMF Article IV Reviews: [www.imf.org/external/np/sec/aiv/index.htm](http://www.imf.org/external/np/sec/aiv/index.htm). The benchmarking data are from World Development Indicators 2005 series NV.AGR.TOTL.KD.ZG

*Definition:* The indicator measures the annual growth rate for agricultural value added, in constant local currency. Regional group aggregates are based on constant 2000 U.S. dollars. Agriculture corresponds to ISIC divisions 1-5 and includes forestry, hunting, and fishing, as well as cultivation of crops and livestock production. Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs. It is calculated without making deductions for depreciation of fabricated assets or depletion and degradation of natural resources.

*Coverage:* Data are available for about 84 USAID countries.

*CAS Code # 34P3*

### **Agricultural policy costs index**

*Source:* Global Competitiveness Report 2005-2006, World Economic Forum. The indicator can be found in the Data Tables, Section II. Macroeconomic Environment; 2.20.

*Definition:* The index measures executives' perceptions of agricultural policy costs in their respective country. Executives grade, on a scale from 1 to 7, whether the cost of agricultural policy in a given country is (1) excessively burdensome, or (7) balances all economic agents' interests.

*Coverage:* Data are available for about 52 USAID countries.

*Data Quality:* Comparisons between countries are difficult, since the data are based on executives' perceptions.

*CAS Code # 34S1*

### **Crop production index**

*Source:* World Development Indicators 2005 series AG.PRD.CROP.XD, based on FAO statistics.

*Definition:* Crop production index shows agricultural production for each year relative to the period 1999-2001 = 100. The index includes production of all crops except fodder crops. Regional and income group aggregates for the FAO's production indices are calculated from the underlying values in international dollars, normalized to the base period.

*Coverage:* Data are available for about 85 USAID countries.

*Data Quality:* Regional and income group aggregates for the FAO's production indices are calculated from the underlying

values in international dollars, normalized to the base period 1999-2001. The FAO obtains data from official and semiofficial reports of crop yields, area under production, and livestock numbers. If data are not available, the FAO makes estimates. To ease cross-country comparisons, the FAO uses international commodity prices to value production expressed in international dollars (equivalent in purchasing power to the U.S. dollar). This method assigns a single price to each commodity so that, for example, one metric ton of wheat has the same price regardless of where it was produced. The use of international prices eliminates fluctuations in the value of output due to transitory movements of nominal exchange rates unrelated to the purchasing power of the domestic currency.

*Coverage:* Data are available for about 85 USAID countries.

*CAS Code # 34S2*

### **Livestock Production index**

*Source:* World Development Indicators 2005 series AG.PRD.LVSK.XD, based on FAO.

*Definition:* Livestock production index shows livestock production for each year relative to the base period 1999-2001 = 100. The index includes meat and milk from all sources, dairy products such as cheese, and eggs, honey, raw silk, wool, and hides and skins.

*Coverage:* Data are available for about 85 USAID countries.

*Data Quality:* See comments on the Crop Production Index.

*CAS Code # 34S3*