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Economic Performance Assessment: Armenia

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Economic Performance Assessment: Armenia

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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, is developing a standard methodology for producing analytical reports that will provide USAID missions and regional bureaus with a clear and concise analysis of economic growth performance for particular host countries. The aim is to help USAID officials gain a clear picture of the host economy, as an input into the identification of possible strategic priorities for Economic Growth program interventions. 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 the country reports. The CTO for this project is Yoon Lee. USAID missions and bureaus may seek assistance and funding for these activities by contacting Rita Aggarwal, USAID/EGAT/EG Activity Manager for the CAS project, at raggarwal@usaid.gov.

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Highlights

This Economic Performance Assessment for Armenia is one in a series of papers that will provide USAID missions and regional bureaus with a concise analysis of selected indicators relating to economic growth prospects for particular host countries. The assessment uses international benchmarking to identify major constraints, trends, and opportunities for strengthening transformational growth and poverty reduction. *Primary performance indicat*ors are examined to establish how the country is performing in a particular area. Where performance is weak, *secondary indicators* are examined to diagnose the source of the problem. Highlights are summarized in the table below, followed by a scorecard, which lists the primary indicators for which Armenia's performance is very weak or very strong relative to the benchmark standards.

Economic Growth	Economic growth is Armenia is excellent and the level of inflation is acceptable. While investment has increased significantly, investment in industry may be insufficient to sustain rapid growth.
Poverty	Rapid growth has reduced poverty, yet per capita income is among the lowest in the lower middle-income group, and a large portion of the population still lives below the official poverty line.
Economic Structure	Output and employment structures reveal three problems that may hinder growth: the share of agriculture is high; the role of services is insufficient; and construction is an unusually large share of industry , heavily concentrated in housing.
Gender	Armenia has achieved gender equality in adult literacy, but unemployment is much more severe among women.
Fiscal and Monetary Policy	Macroeconomic policies have been prudent. Because due to low tax revenues, government spending on infrastructure, health care, and education is inadequate relative to needs.
Business Environment	Many business environment indicators, such as the cost of starting a business, are quite good in comparison with benchmark countries, but further improvement is desirable. Corruption remains a serious problem.
Financial Sector	Financial sector performance is comparable to the benchmark standards, but poor from any reasonable absolute standard. The cost of borrowing is high, and the level of credit to the private sector is low, inhibiting productive investment.
External Sector	Strong growth has been supported by massive inflows of workers' remittances and financial assistance, both private and public. This means that the Armenian Diaspora and donor agencies have significant political and business influence. The volume of foreign trade relative to GDP is low for a small country, and too concentrated. Inflows of p rivate foreign capital are also low.
Economic Infrastructure	The level of infrastructure development is uneven. Access to telephones is below par.
Health	Many health indicators, such as life expectancy, are good. Low levels of government spending on health may make it difficult to improve or even maintain health status.
Education	Adult literacy and enrollment rates are quite good, but there are doubts about whether the quality of education is adequate to meet the challenges of a modern, competitive economy.
Employment and Workforce	Unemployment is severe, and many Armenians seek jobs abroad.
Agriculture	The growth of agriculture has been moderately good, but output is highly dependent on weather conditions, and overall productivity is low. The share of agriculture in output and employment remains high compared to countries with similar levels of income.

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ARMENIA PERFORMANCE SCORECARD

	Actual Value	Benchmark Value	Latest Year of Data
INDICATORS SHOWING POOR PERFORMANCE			
Growth Performance			
Per capita GDP, $PPP	2854.6	5579.2	2004
Per capita GDP, current US$	794.5	1946.4	2004
External Sector			
Aid, % GNI	12.0	4.3	2002
Poverty and Inequality			
Population living on less than $1 PPP per day, %	15.9	9.6 [a]	2001
Poverty headcount, by national poverty line, %	53.7	54.1 [b]	1999
Fiscal and Monetary Policy			
Government expenditure, % GDP	18.9	26.1 [a]	2003
Government revenue, % GDP	14.6	23.3 [a]	2003
Financial Sector			
Domestic credit to private sector, % GDP	6.9	11.0 [a]	2002
Interest rate spread	11.5	13.4 [b]	2002
Money supply, % GDP	13.6	21.4 [a]	2002
Stock market capitalization rate, % GDP	1.4	21.7	1999
Legal rights of borrowers and lenders index, 0 - 10	4.0	5.5	2004
External Sector			
Trade, % GDP	81.6	112.7 [a]	2003
Business Environment			
Corruption perception index, 1 – 10	3.1	2.4 [b]	2004
Science And Technology			
Expenditure for R&D, % GNI	0.2	0.7	2000
Economic Infrastructure Technology			
Telephone density	161.7	237.2	2002
Employment and Workforce			
Unemployment rate, %	10.1	6.9	2003
INDICATORS SHOWING GOOD PERFORMANCE			
Growth Performance			
Real GDP Growth, % change	10.1	7.0 [a]	2004
Investment productivity (Incremental Capital-Output Ratio) (lower value better)	2.1	3.3	2003
Demography and Environment			
Adult literacy rate, % population	99.4	99.6 [b]	2002
External Sector			
Growth in exports of and services, % change	29.4	12.1 [a]	2003
Present value of debt, % GNI	30.5	54.2 [a]	2002
Business Environment			
Cost of starting a business, % GNI per capita	7.0	14.8	2004
Procedures to register property, procedures	4.0	7.2	2004
Time to enforce a contract, days	195.0	292.7	2004
Time to register property, days	18.0	82.3	2004

Note: The benchmark value is the average for lower middle-income countries of the Former Soviet Union, except as follows:
[a] Estimated value from benchmark regression analysis; [b] Performance assessed on absolute criterion rather than relative comparison.

1. Introduction

This paper is one of a series of Economic Performance Assessments (EPAs) prepared on behalf of the EGAT Bureau to provide USAID missions and regional bureaus with a concise analysis of selected economic growth (EG) performance indicators for particular host countries. The aim is to help USAID missions gain a clear picture of the host economy, as an input into the identification of possible strategic priorities for EG program interventions. The review uses international comparisons ("benchmarking") to highlight major constraints, trends, and opportunities in areas such as macroeconomic management, trade policy, financial markets, the legal and regulatory environment, agricultural development, and others enumerated below. The analysis draws on the latest data from USAID's internal Economic and Social Database (ESDB)[1] and from readily accessible public information sources.

The approach used here is analogous to examining an automobile dashboard to see which gauges are signaling problems. A blinking light sometimes has obvious implications—such as the need to fill the fuel tank when the indicator shows that the tank is low. In other cases, it is necessary to have a mechanic probe more deeply to assess the source of the trouble and discern the best course of action.[2] The EPA, similarly, is based on an examination of key economic and social indicators. For some of the issues where indicator lights are blinking, a detailed study may be needed to investigate the problems more fully and identify appropriate programmatic interventions.

ANALYTICAL FRAMEWORK

The analysis is organized around two interrelated and mutually supportive goals: transformational growth and poverty reduction.[3] Rapid and broad-based growth is the most powerful instrument for poverty reduction. At the same time, measures to invest in human capital, reduce poverty, and lessen inequality help to underpin rapid and sustainable growth. These interactions create the potential for 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***,

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[1] The ESDB is accessible through the USAID intranet. It is compiled and maintained by the Development Information Service (DIS), under PPC/CDIE.

[2] Sometimes, too, the problem is faulty wiring to the indicator—analogous here to faulty data.

[3] 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.

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

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***.[4] Here, too, many elements are involved, including: effective education and health systems; a strong commitment to fighting HIV/AIDS; 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 towards gender equity.

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 of brevity and clarity, on the other. The analysis covers fifteen EG-related topics, and a total of just over 100 variables. For the sake of brevity, the write-up highlights issues for which the "dashboard lights" appear to be signaling serious problems, which suggest possible strategic priorities for USAID intervention.[5]

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 set of primary indicators also includes 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.[6]

Particular indicators have been selected on the basis of several criteria. Each indicator must be accessible through USAID's Economic and Social Database or convenient internet sources. The indicators must be available for a large number of countries, including most USAID client states. Each one must be sufficiently timely to support an assessment of country performance that is

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[4] 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 on economic growth programs. Also, it is difficult to find meaningful and readily available indicators of vulnerability to use in the template

[5] The accompanying Data Supplement provides a full list of indicators, along with the complete Armenia data set, including data for the benchmark comparisons, and technical notes for every indicator.

[6] Deeper analysis of the topic using more detailed data (level III) is beyond the scope of papers in this series.

suitable for strategic planning purposes. Data quality is another paramount 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, redundancy is minimized. If two indicators provide similar information, one is selected, with preference to variables that are simplest to understand. For example, both the Gini coefficient and the share of income accruing to the poorest 20% 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 Armenia relative to the average for countries in the same income group and region—in this case, lower-middle income countries in the Former Soviet Union.[7] 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 Armenia mission (Georgia and Croatia); 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; where year-to-year fluctuations are large, five-year averages are used. Five-year trends are also taken into account if they shed light on the performance assessment.[8]

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.[9] This approach has three advantages. First, the benchmark is customized to Armenia's specific 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 Armenia's characteristics. An observed value falling outside this band on the side of poor performance signals a serious problem.[10]

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[7] 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.

[8] 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.

[9] This is a cross-sectional OLS regression using data for all developing countries. For any variable Y, the regression takes the form: Y (or ln Y, as appropriate) = a + b*ln PCI + c*Region + error, where PCI is per capita income in PPP$, and Region is a set of dummy variables for the various regions. Once estimates are obtained for parameters a, b and c, the predicted value for Armenia is computed by plugging in Armenia-specific values for PCI and Region. (Where applicable, the regression also controls for population size, and petroleum exports as a percentage of GDP.)

[10] 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.

Finally, where relevant, Armenia's performance is weighed against absolute standards. For example, Armenia's score of 3.1 on the Corruption Perceptions Index is slightly better than the benchmark figure of 2.4, but it is still a sign of a serious problem with corruption.

The results of this exercise must be interpreted with caution. No analysis of this sort can provide mechanical or definitive answers to questions about strategic priorities. For some topics, such as macroeconomic policy, it is easy to find fairly clear diagnostic indicators. For others, such as the quality of economic infrastructure, international statistics tell a very incomplete story. The aim is to identify signs of serious economic growth problems based on a systematic review of a variety of indicators, subject to the limits of data availability and quality, and thereby provide analytical insight into possible priorities for USAID interventions. On-the-ground knowledge and further in-depth studies are required to supplement this broad-strokes analysis.

The remainder of this report discusses the most important results of the diagnostic analysis. The review is presented in three sections: Overview of the Economy; Private Sector Enabling Environment; and Pro-Poor Growth Environment. Table 1-1 summarizes the topic coverage. An accompanying Data Supplement contains a list of all indicators used for the EPA series, a full tabulation of the Armenia data and the benchmark data used for this report, and detailed technical notes on each indicator.

Table 1-1
Topic Coverage

Overview of the Economy	Private Sector Enabling Environment	Pro-Poor Policy Environment
Growth Performance	Fiscal and Monetary Policy	Health
Poverty and Inequality	Business Environment	Education
Economic Structure	Financial sector	Employment and Workforce
Demographic and Environmental Conditions	External sector	Agriculture
Gender	Economic Infrastructure	
	Science and Technology	

2. Overview of the Economy

This section reviews basic information on Armenia's macroeconomic performance, economic structure, demographic and environmental conditions, poverty and inequality, and indicators of gender equity.[11] Some of the indicators are descriptive rather than analytical, and are included to provide context for the performance analysis.

GROWTH PERFORMANCE

Armenia's recent performance is impressive on many fronts. Armenia is among the fastest growing economies in the world. Annual GDP growth averaged double-digit levels over the last three years, including 10.1% in 2004, so that over the past ten years Armenian GDP has more than doubled. According to the CIS Statistical Committee, Armenian GDP in 2003 exceeded the pre-independence level by 8%, while in neighboring Georgia GDP was 42% below the pre-independence level (Figure 2-1).

Armenia has benefited from more than a decade of market reform, as well as from prudent fiscal and monetary policies. A major factor behind strong growth has been the inflow of labor income and current transfers from abroad.

Armenian consumer price inflation is mild, despite an acceleration to 7.0% last year, caused, in large part, by a jump in agricultural producer prices (Figure 2-2).

In terms of poverty, Armenia came out of the Soviet era as one of the poorer countries in the region. In addition, production sharply declined and poverty rose during the initial stage of market transformation, which was exacerbated by the conflict with Azerbaijan. Recent rapid growth has helped reduce poverty, yet per capita GDP—about $800 last year—remains among the lowest in the lower middle-income group, a large portion of the population lives below the official poverty line, and unemployment levels remain stubbornly high (Figure 2-3).

Rapid GDP growth has been driven by the accelerating expansion of fixed capital investment. Gross fixed investment has increased markedly in Armenia over the past five years, both in absolute terms and relative to GDP. In 2003, the gross fixed investment-to-GDP ratio reached 24%. This is above both the benchmarks for the region and income groups, as well as Georgia, and comparable to the level of investment in high-performing Croatia (Figure 2-4).

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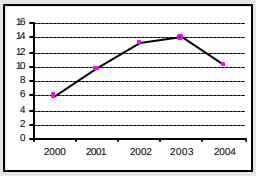
[11] The data supplement provides information on the data sources and definitions, as well as a tabulation of the data for Armenia and the international benchmarks, including indicators not discussed in the text.

Figure 2-1

Real GDP growth

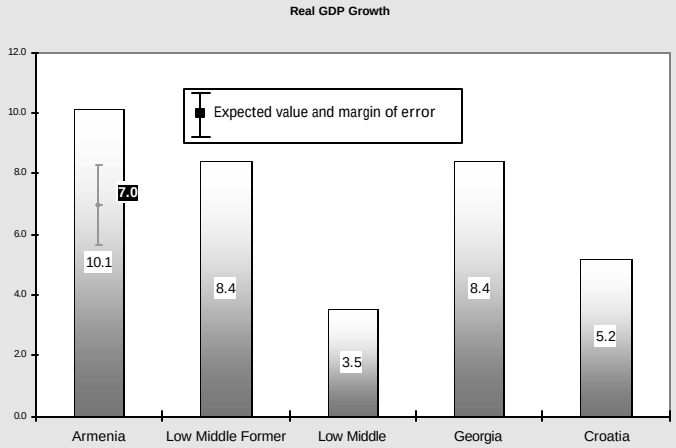
11p3

Time series



Year	Value
2000	5.9
2001	9.6
2002	13.2
2003	13.9
2004	10.1

Comparisons to other countries, most recent year



Summary for 2000 - 2004	
Five year average	10.5
Av. growth rate	-
Index for 2004 (2000=100)	171.1

The average value of the top five performers is 14. The average value of the bottom five performers is -12.5.

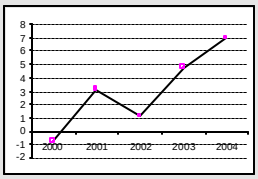
Source: World Development Indicators (NY.GDP.MKTP.KD.ZG) for benchmark data; latest country data from IMF Article IV Review Reports available at www.imf.org/external/np/sec/aiv/index.htm and the National Statistical Service, Republic of Armenia.

Figure 2-2

Inflation rate

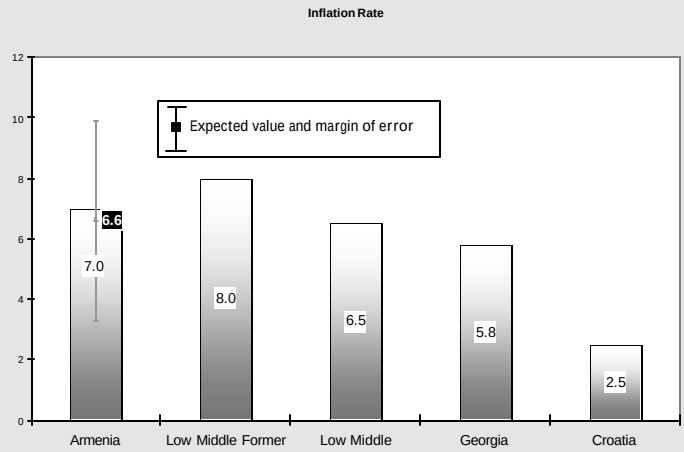
21p4

Time series



Year	Value
2000	-0.8
2001	3.1
2002	1.1
2003	4.8
2004	7.0

Comparisons to other countries, most recent year



Summary for 2000 - 2004	
Five year average	3.0
Av. growth rate	.
Index for 2004 (2000=100)	.

The average value for the five countries with the lowest inflation is -1.1. The average value for the five countries with the highest inflation is 103.5

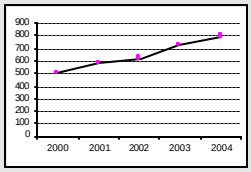
Source: IMF World Economic Outlook database *http://www.imf.org/external/pubs/ft/weo/2004/02/data/index.htm* and the National Statistical Service, Republic of Armenia.

Figure 2-3

Per capita GDP, in current U.S. Dollars

11p2

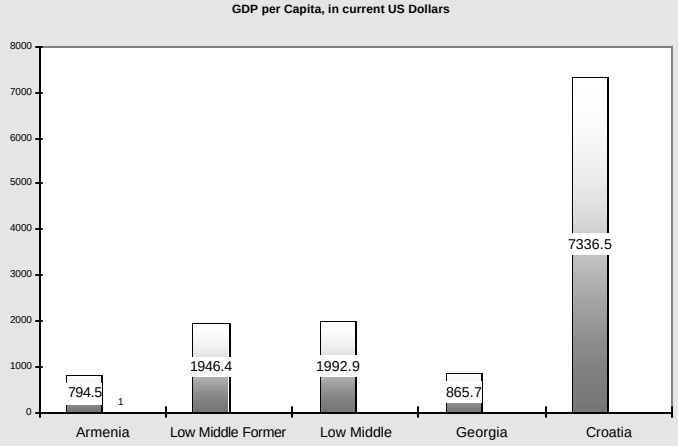
Time series



Year	Value
2000	503.8
2001	578.3
2002	621.7
2003	725.3
2004	794.5

Summary for 2000 - 2004	
Five year average	645.0
Av. growth rate	12.0
Index for 2004 (2000=100)	157.7

Comparisons to other countries, most recent year



The average value of the top five performers is 50,878.
The average value of the bottom five performers is 121.

Source: IMF World Economic Outlook database
http://www.imf.org/external/pubs/ft/weo/2004/02/data/index.htm

Figure 2-4

Share of gross fixed investment in GDP

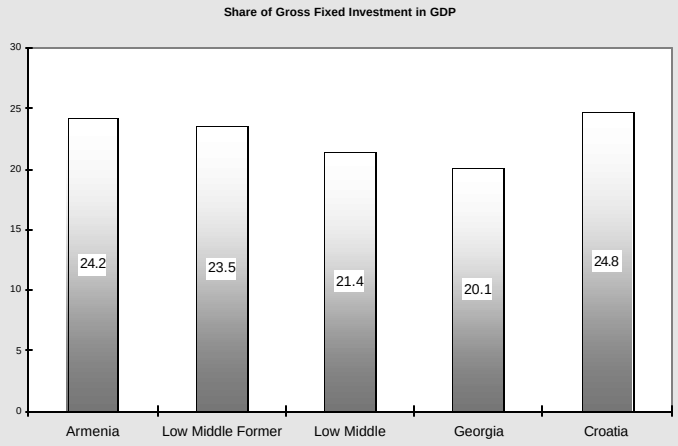
11s3

Time series

Year	Value
1999	16.4
2000	18.4
2001	17.7
2002	21.1
2003	24.2

Summary for 1999 - 2003	
Five year average	19.6
Av. growth rate	9.58
Index for 2003 (1999=100)	147.5

Comparisons to other countries, most recent year



The average value of the best five performers is 46.6. The average value of the poorest five performers is 6.9

Source: IMF Article IV Consultation Reports, for latest country data: World Development Indicators, for international comparison data, and the National Statistical Service, Republic of Armenia.

While investment has clearly been an important factor on the demand side, its impact on the supply side is less straightforward. Nearly two-thirds of total investment has been in the construction activity, and housing accounts for 47 percent of this activity. Only 5 percent of construction spending has gone into the industrial sector. The type of investment growth therefore raises questions about whether it is increasing the productive capacity of the economy in the medium and long run, though it is certainly improving the size and quality of the housing stock and people's living conditions. There are also questions about its sustainability, given that the investment in housing has evidently been financed to a great extent through private current transfers and labor income from abroad, rather than through domestic saving.

Labor force and labor productivity trends in Armenia are difficult to assess, partly because of data inconsistency resulting from adjustments to take into account the 2001 Census. Increased employment does not appear to have been a significant growth factor, though it is difficult to tell given the data. That said, the acceleration of economic growth has undoubtedly been accompanied by a rapid increase in labor productivity, because production has risen substantially with little growth in employment. Rapid improvement in Armenian labor productivity contrasted favorably with a 1.7% sluggish average rise in labor productivity in the lower middle-income country group.

The reasons for rapid growth in labor productivity are unclear. The fact that the investment boom has been concentrated in housing construction suggests that labor productivity is not being driven by capital investment or technological change. The data that we have on economic structure (discussed below) is too suspect to know if a reallocation of labor across sectors played a role. One possibility is that labor productivity has increased simply because workers started to work more effectively because of improved capacity utilization.

The principal challenge for Armenia is to sustain these high growth rates to reduce further the high levels of poverty and unemployment, and maintain good performance on health, education and other social indicators necessary for a competitive workforce. Although foreign transfers currently play a major role in maintaining strong growth, Armenia needs to diversify its sources of financing and reduce the role of foreign aid to sustain economic expansion.

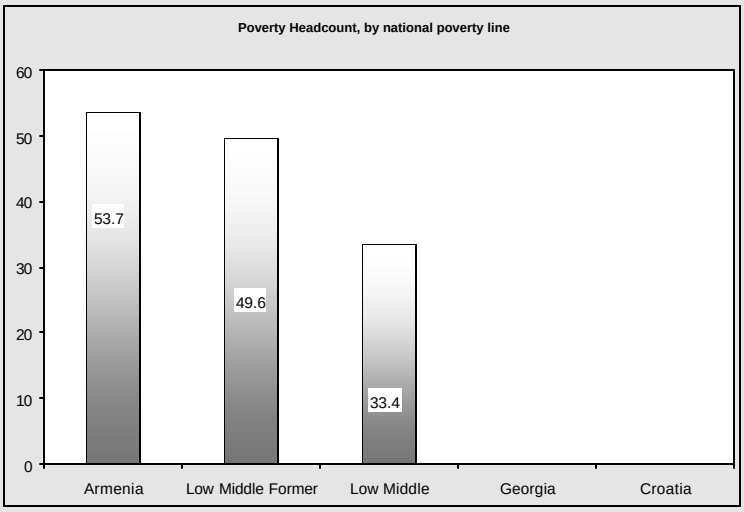
POVERTY AND INEQUALITY

As the per capita GDP data suggest, poverty is a serious problem in Armenia. The poverty rate, measured as the percentage of people falling below the national poverty line, another key poverty indicator, was extremely high, hovering above 50% at the end of the 1990s. The poverty rate in Armenia exceeded, though slightly, the average rate for the lower middle-income countries of the FSU, and these national figures are confirmed by IMF reports that the share of population below the poverty line dropped to a still high 43% in 2003 (Figure 2-5). The problem of poverty, as well as the related problem of unemployment and underemployment, in Armenia is due, in large part, to such factors as the effects of past conflict with Azerbaijan and the difficulties of transition from a planned to open market economy. Continuing high rates of poverty suggest that the type of growth that is occurring is not sufficiently pro-poor. Future growth needs to be more pro-poor and employment intensive. [See the analysis of Armenia’s economic structure and the need for policies that facilitate a shift from agriculture to services and (competitive) industry, below].

Figure 2-5

Poverty headcount, by national poverty line **12p4**

Comparisons to other countries, most recent year



The average value of the five countries with the lowest poverty rate is 26. The average value of the five countries with the highest poverty rate is 48.

Source: World Development Indicators, (SI.POV.NAHC), original data from national surveys. Alternate source: Country Poverty Reduction Strategy Paper. http://www.imf.org/external/np/prsp/prsp.asp

ECONOMIC STRUCTURE

Output and employment structures in Armenia appear to have at least three problems that may hinder economic growth: dependence on agriculture remains high, the role of services is relatively low, and industrial output depends to unusually large degree on construction, relative to manufacturing and other industry.

In 1999-2003, the output structure in Armenia changed substantially in favor of construction, mostly at the expense of agriculture and, to some extent, at the expense of services. Nevertheless, the role of agriculture, a very low productivity sector, remains more important than in benchmark groups as well as in Georgia or Armenia. In 2003, value added in agriculture accounted for 24% of GDP in Armenia, compared to 14% on average for the lower middle-income countries. At the same time the size of the services sector, which often drives productivity, is much small in Armenia (38% of GDP) than the average for lower middle-income countries (55%).

These structural characteristics of underdevelopment are reflected in the employment patterns (though employment trends are difficult to assess because of changes in the data). The share of agriculture in total employment increased, even as the share of this sector in total value-added declined. This seems counterintuitive, and may not reflect actual employment dynamics. Nevertheless, it is likely that a very large portion of employment, reportedly 46%, remains in agriculture. This is very high both absolutely and relative to benchmark countries and county groups. The average for lower middle-income countries is 28%. The employment data seem to be at odds with statistics showing that Armenia has an urbanization rate of 67%. This may be a definitional question, as many people live in small and medium-sized towns. Another employment problem is underdevelopment of the services sector. This sector accounted for 37%

of overall employment in Armenia in 2003. In the lower middle-income countries this share stood at 50%.

These indicators point to a compelling need to shift the structure of growth to facilitate an increase in value-added per worker in the economy overall. Many other countries have had success in this regard by promoting growth in non-farm services in rural areas, including training, technical assistance and credit programs like micro-finance for microenterprises and SMEs, combined with identifying and supporting sectors whose development will improve Armenia's competitiveness. The relatively slow expansion of services warrants special attention to the identification and elimination of growth impediments in this sector.

DEMOGRAPHY AND ENVIRONMENT

As of 2005 Armenia's dependency ratio is not a cause for concern. Trends in Armenia's demographic patterns, however, suggest long-term challenges to continued strong economic performance and the sustainability of Armenia's social safety net. In the 1970s–1980s, Armenia had a young population and rapid labor force growth, it now has a balanced population now, and will have an aging population by 2030–2050. Demographic problems related to an aging population and the financing of the social safety net—retirement, pensions, health care—will be more serious in future decades and are better and more cheaply addressed proactively in the coming years.

Armenia's Environmental Sustainability Index is on par with those in other lower middle-income countries.

GENDER

Armenia has achieved gender equality in adult literacy, and near equality in gross enrollment and life expectancy (76 years for women compared to 70 for men). As women in developed countries live on average 6–10 years more than men, the life expectancy indicator is on track. However, women make up a disproportionate number of the unemployed and those under the poverty line. According to the National Statistical Service (NSS) of the Republic of Armenia, the registered unemployment rate among women is particularly severe: 14.4 % versus 5.9% among men in 2003, and the gap between the unemployment rates for women and men widened in the 2000s. This is surprising given that a disproportionate number of Armenian migrants are men, and suggests that donor assistance may profitably support programs to assist job creation for women.

3. Private Sector Enabling Environment

This section reviews indicators for key components of the enabling environment for encouraging rapid and efficient growth of the private sector: fiscal and monetary policy; development of the financial sector; global integration; a strong legal, regulatory and institutional environment, including control of corruption; development of the economic infrastructure; and capacity for science and technology. Sound fiscal and monetary policies are essential for macroeconomic stability, a necessary (but not sufficient) condition for sustained economic growth. 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 pillar of a good enabling environment, because the external sector is a central source of potential markets, modern inputs, technology, finance, and competitive pressures for efficiency and productivity. 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. Equally important is development of the physical infrastructure to support production and trade. Finally, developing countries need to develop the capacity to adapt and apply science and technology as a basis for attracting efficient investment, improving competitiveness, and stimulating rapid productivity growth.

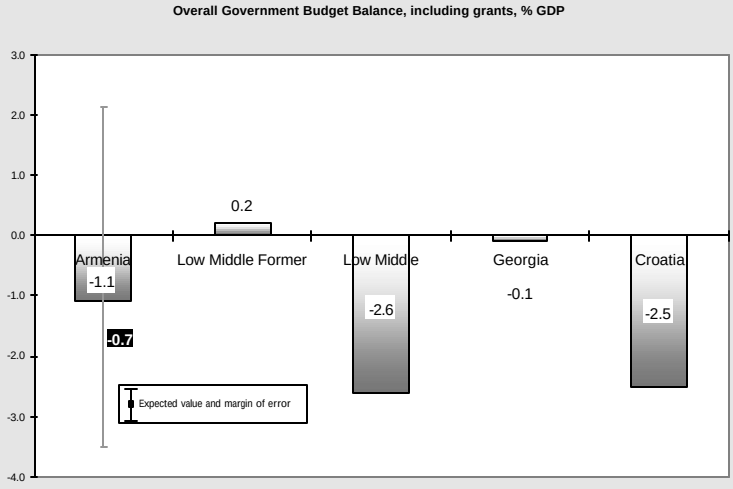
FISCAL AND MONETARY POLICY

Armenian fiscal and monetary policies are prudent, and, in general, macroeconomic policy has created a positive environment for rapid growth. In turn, strong growth has made good macroeconomic policy easier, thus creating a virtuous circle. The budget deficit is reasonable—1.1% of GDP in 2003, though this is, to some extent, a result of strong economic growth (Figure 3-1). Monetary policy is more difficult to assess given large swings in money supply growth reported by the IMF, which contrast with local Armenian statistics showing more stable money supply growth. It is unclear how much actual control the Central Bank has, given large recorded and unrecorded inflows from abroad and the substantial dollarization of the economy. In any case, mild inflation is evidence that monetary policy is reasonable.

Figure 3-1

Overall gov't budget balance, including grants, % GDP **21p4**

Comparisons to other countries, most recent year



The average value of the five countries with the highest budget surplus is 4.3.
The average value of the five countries with the highest budget deficit is -10.5.

Source: IMF Article IV Reviews for latest country data www.imf.org/external/np/sec/aiv/index.htm; World Development Indicators for benchmarking data, (GB.BAL.OVRL.GD.ZS). Original data from the International Monetary Fund, Government Finance Statistics Yearbook, and World Bank estimates.

Government revenues are too low in Armenia so that the level of the government's financial involvement in the economy appears insufficient in terms of providing needed investment in infrastructure and the health and quality of the labor force. Not counting grants, revenues stood at 15% of GDP in 2003 compared with 22% of GDP for lower middle-income countries in general and 21% of GDP for lower middle-income former Soviet economies (Figure 3-2). Low revenues limit the ability of the government to invest in key areas, such as health, education, and infrastructure if the budget deficit is to remain prudent. Government expenditures equaled about 19% of GDP in 2003, higher than in Georgia, but significantly less than in the lower middle-income countries and, especially, in Croatia. Government spending is relatively low, and even lower when spending is discounted for Armenia's greater than average spending on its military. Armenia cannot expect to be able to rely on donor funding forever, and without an adequate domestic revenues base, the budget deficit may be vulnerable to a slowing of Armenia's high growth rates.

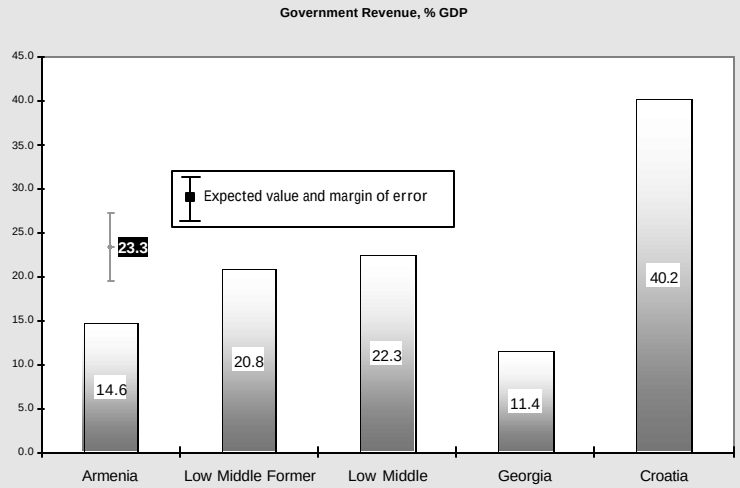
To date, policy reforms on the tax side, such as the reduction of income tax rates and the introduction of profit tax holidays for large foreign investors, have been favorable for creating incentives, but have also hurt revenues. According to the recent Article IV Review by the IMF, a major cause for insufficient tax collection is weak tax administration. Improved tax collection would allow the government to increase necessary spending without running large budget deficits. Armenia could benefit from donor assistance in tax administration, specifically

enforcement and implementation, which, as in other areas, is a pervasive weakness of economic reforms in Armenia.

Figure 3-2

Government revenue, % GDP **21p2**

Comparisons to other countries, most recent year



The average value of the five countries with the highest government revenue relative to GDP is 38.3. The average value of the five countries with the lowest government revenue relative to GDP is 6.9.

Source: IMF Article IV Reviews for latest country data www.imf.org/external/np/sec/aiv/index.htm; World Development Indicators for benchmarking data (GB.RVC.TOTL.GD.ZS). Original data from the International Monetary Fund, Government Finance Statistics Yearbook and data file, and World Bank estimates.

BUSINESS ENVIRONMENT

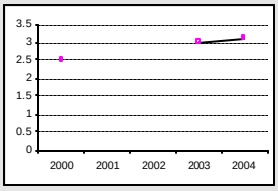
Many business environment indicators are quite good in Armenia, especially in comparison with other countries of the same income level. For example, the cost of starting a business is 7% of per capita GNI, more than five times lower than on average in the lower middle-income countries. However, the poor absolute numbers on corruption call into question how pro-business the overall environment is, especially in the judiciary, and these concerns are compounded by reports that implementation and enforcement of formal rules, regulations, and laws are at best uneven. Moreover, Armenia's good relative performance on formal indicators should not divert government and donor's attention from this area. On many business environment indicators (e.g., the time and number of procedures to perform various key business activities), Armenia is still at nearly double the level of the best performers on these measures. For example, starting a business in Armenia requires following 10 procedures, while only 5 are required in the five best performing countries. This suggests that assistance from USAID and other donors could be particularly helpful in addressing the problem of corruption, improving the implementation of formal reforms, and in furthering reforms to the micro-business climate (see Figure 3-3).

Figure 3-3

Corruption perception index

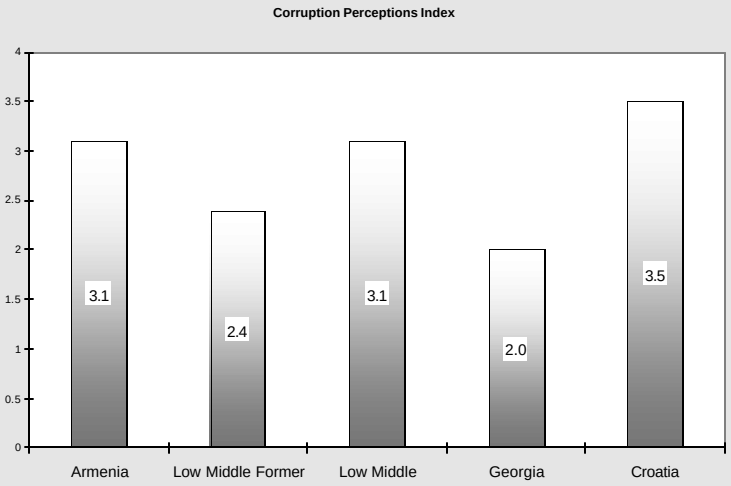
21s3g

Time series



Year	Value
2000	2.5
2001	.
2002	.
2003	3.0
2004	3.1

Comparisons to other countries, most recent year



Summary for 2000 - 2004	
Five year average	.
Av. growth rate	.
Index for 2004 (2000=100)	124.0

The average value of the top five performers is 9.5.
The average value of the bottom five performers is 1.6.

Source: Transparency International, http://www.transparency.org/cpi/2004/cpi2004.en.html

FINANCIAL SECTOR

An efficient financial sector is key for a productive economy and sustainable, transformational growth. High spreads and real interest rates impede private borrowing in general, and borrowing by SMEs in particular, leading to both underinvestment and a misallocation of investment.

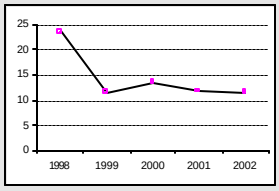
Armenia's financial sector performance is comparable to its benchmark countries and country groups, but poor from any reasonable absolute standard. Real interest rates have declined over the last five years but remain at double-digit levels (18.5% in 2002). Armenia's interest rate spread, which measures the degree of efficiency and competitiveness in the financial sector, exceeds 10% (Figures 3-4 and 3-5). Although this is less than the spread in Georgia and in the lower middle-income countries of the FSU in general, it is still very high given mild inflation in Armenia. Taken together, these figures mean that borrowers face a very high cost of borrowing, which shows up in the extremely low levels of domestic credit to the private sector, less than 10% of GDP, compared to 51% in Croatia, and 35% in lower middle-income countries generally. The stock market is tiny at around 2% of GDP, compared to 22% in lower middle-income former Soviet economies, and 33% in lower middle-income countries generally.

Figure 3-4

Interest rate spread, lending rate minus deposit rate

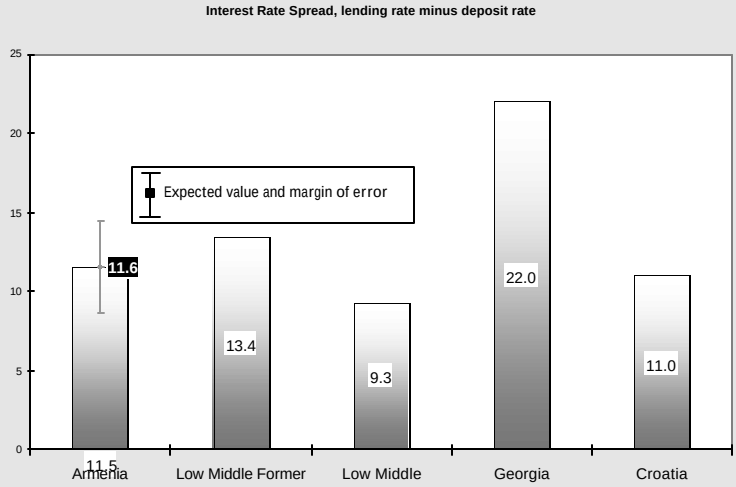
23p1

Time series



Year	Value
1998	23.5
1999	11.5
2000	13.5
2001	11.8
2002	11.5

Comparisons to other countries, most recent year



Summary for 1998 - 2002	
Five year average	14.4
Av. growth rate	-13.1
Index for 2002 (1998=100)	49.0

The average value of the five countries with the greatest interest rate spread is 32.1.
The average value of the five countries with the lowest interest rate spread is 1.7.

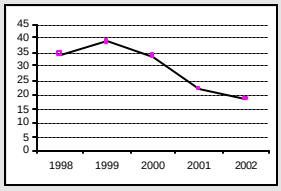
Source: World Development Indicators (FR.INR.LNDP). Original data from International Monetary Fund, International Financial Statistics and data files.

Figure 3-5

Real interest rate

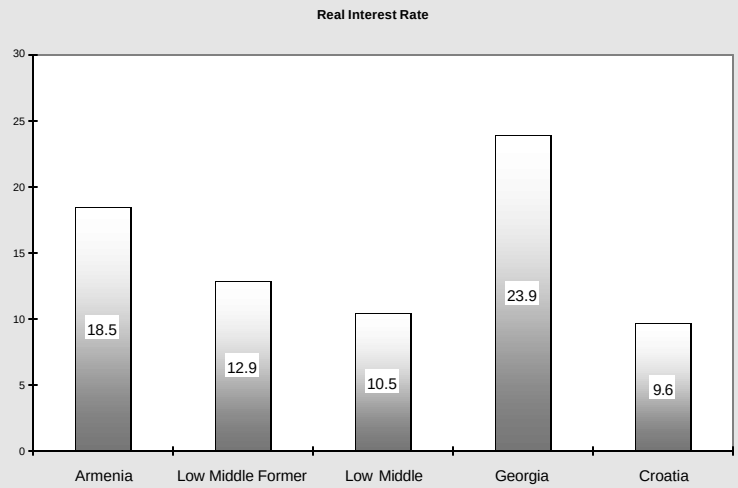
23s3

Time series



Year	Value
1998	34.2
1999	38.8
2000	33.5
2001	21.7
2002	18.5

Comparisons to other countries, most recent year



Summary for 1998 - 2002	
Five year average	29.3
Av. growth rate	-16.6
Index for 2002 (1998=100)	54.0

The average value of the five countries with the highest real interest rate is 46.7.
The average value of the five countries with the lowest real interest rate is -11.5.

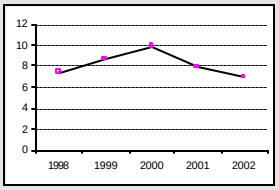
Source: World Development Indicators (FR.INR.RINR).

When all of these factors are taken together, along with the low foreign direct investment inflows noted in the External Sector section below, it is clear that a major improvement in financial sector performance is needed to increase domestic credit to the private sector and improve the quality and quantity of Armenia's capital investment. See Figure 3-6. The Armenian financial sector would benefit substantially from donor support to improve the quality of financial sector regulation and increase competition in the sector; to improve the efficiency of private sector financial intermediaries; measures to increase the flow of workers' remittance flows through the formal financial system; and support for micro-finance programs that provide credit for microenterprises and SMEs.

Figure 3-6

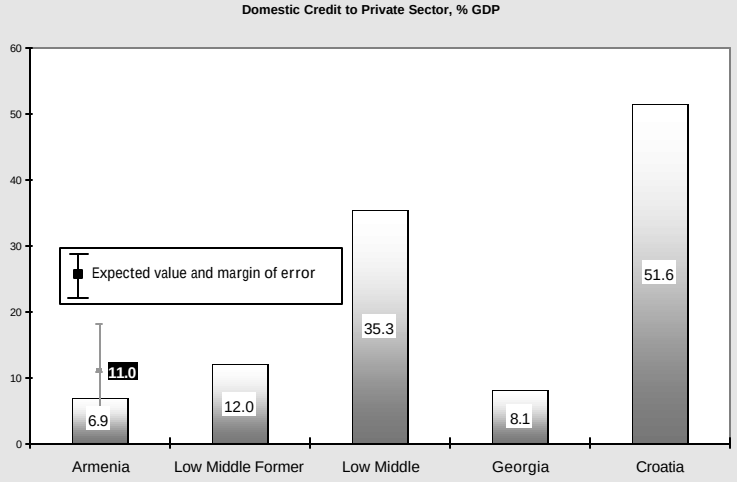
Domestic credit to private sector, % GDP 22s7

Time series



Year	Value
1998	7.4
1999	8.7
2000	9.9
2001	7.9
2002	6.9

Comparisons to other countries, most recent year



Summary for 1998 - 2002	
Five year average	8.2
Av. growth rate	-2.33
Index for 2002 (1998=100)	93.6

The average value of the five countries with the greatest domestic credit to the private sector as a percent of GDP is 156. The average value of the bottom five countries is 2.4.

Source: IMF Article IV Reviews for latest country data; World Development Indicators for benchmarking data (FS.AST.PRVT.GD.ZS). Original data comes from International Monetary Fund, International Financial Statistics and data files, and World Bank estimates.

EXTERNAL SECTOR

Fundamental changes in international commerce and finance, such as lower transport costs, advances in telecommunications technology, and the decline in policy barriers have fueled a rapid increase in global integration over the past 25 years. The international flow of goods and services, capital, technology, ideas, and people offers great opportunities for Armenia 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; cost-effective approaches to cope with the adjustment costs; and systems for monitoring and mitigating associated risks.

In general, labor income and current transfers (both private and official) from abroad are critically important in stimulating domestic demand in the country. The construction boom was likely financed by an increase in workers' remittances and unprecedented inflows of funds from private donors, including for projects in the area destroyed by the earthquake in the late 1980s.The ratio of workers' remittances to exports provided in the Data Supplement is based on WDI statistics. These figures (between 1.5% and 3.9% in 1998–2002) appear to be unrealistically low, probably because of a narrow definition of remittances applied by the WDI. According to the IMF, Armenia official statistics show that "worker remittances (private transfers and worker compensation inflows) are equivalent to 8 percent of GDP, but unofficial estimates point to a figure between 12 and 25 percent of GDP" (p.9).

Currently, foreign capital does not play a major role in Armenian economic development either. Foreign direct investment flows are relatively low (4% of GDP in 2003), less than the average for the lower middle-income countries of the FSU (6% of GDP), and are not much of a factor of demand generation. Excessive reliance on expatriate funds limits the types of investments and technology that can be brought into Armenia, as well as the channels for marketing and distribution.

Trade and exports, in particular, have formed a major engine for transformational growth in most developing countries that have been able to achieve sustained growth and significantly raise income levels over the long run. Armenian exports have grown rapidly for several years, about 15% annually in 1999–2003, faster than exports in lower middle-income countries (5%), Georgia (6%), and Croatia (1%), but at roughly the same rate as the group of the FSU lower middle-income countries. (See Figure 3-7.) Nonetheless, Armenian economic growth does not appear to be export-led, because imports also increased significantly; hence, the net contribution of trade to growth has been low. As a result Armenia still runs large foreign trade deficits. The current account deficit has come down steadily over the last several years, reaching about 7% in 2003. While high, it is below the alarm stage of several years ago, in large part thanks to the substantial current transfers and labor income referred to above.

Armenian export growth in recent years has been remarkable, but it starts from a relatively low base. The country's overall external trade turnover in 2003 was 81% of GDP, which is well below the lower bound of the normal range for such a small country, as well as the value for comparator groups. The share of trade in GDP is even lower if one adjusts for in-and-out jewelry trade. According to the National Statistical Service, precious and semi-precious stones and precious metals accounted for 26% of Armenian imports and 51% of Armenian exports in 2003. The relatively low trade ratio does not appear to be due to problems with trade policy, as such. But Armenia's landlocked status and closed borders with Turkey and Azerbaijan are major obstacles to foreign trade, preventing the country from exploiting its international competitiveness. Armenia's overland trade route through the Georgian-Russian border is interrupted periodically by winter snows and political tensions. Access to Iran is limited because of a narrow and mountainous road. The country's main trade gate is through the Georgian Black Sea port of Poti.

At this point, support by the Armenian diaspora is beneficial for Armenia. But this advantage may turn into an obstacle to economic development if the government becomes complacent and puts too much emphasis on these funds in its long-term plans. While these inflows are likely to continue, it is unclear whether they are financing a type of growth—housing construction—which is sustainable or helping diversify the country's economic base and exports in particular, and therefore laying the basis for transformational development. The country needs to pursue policies to promote other sources of domestic and foreign financing for productive investment, and simultaneously to pursue reforms that will channel these inflows into productive investment. Armenia should pursue measures that shift the type of growth toward more productive investment, that facilitate structural shifts into higher value added sectors, and that make better use of its educated workforce. Trade-related measures should be coordinated with improvement in financial sector performance to channel funds to private non-construction investment, attracting foreign investment, and the promotion of international competitiveness of Armenian goods and services.

Figure 3-7

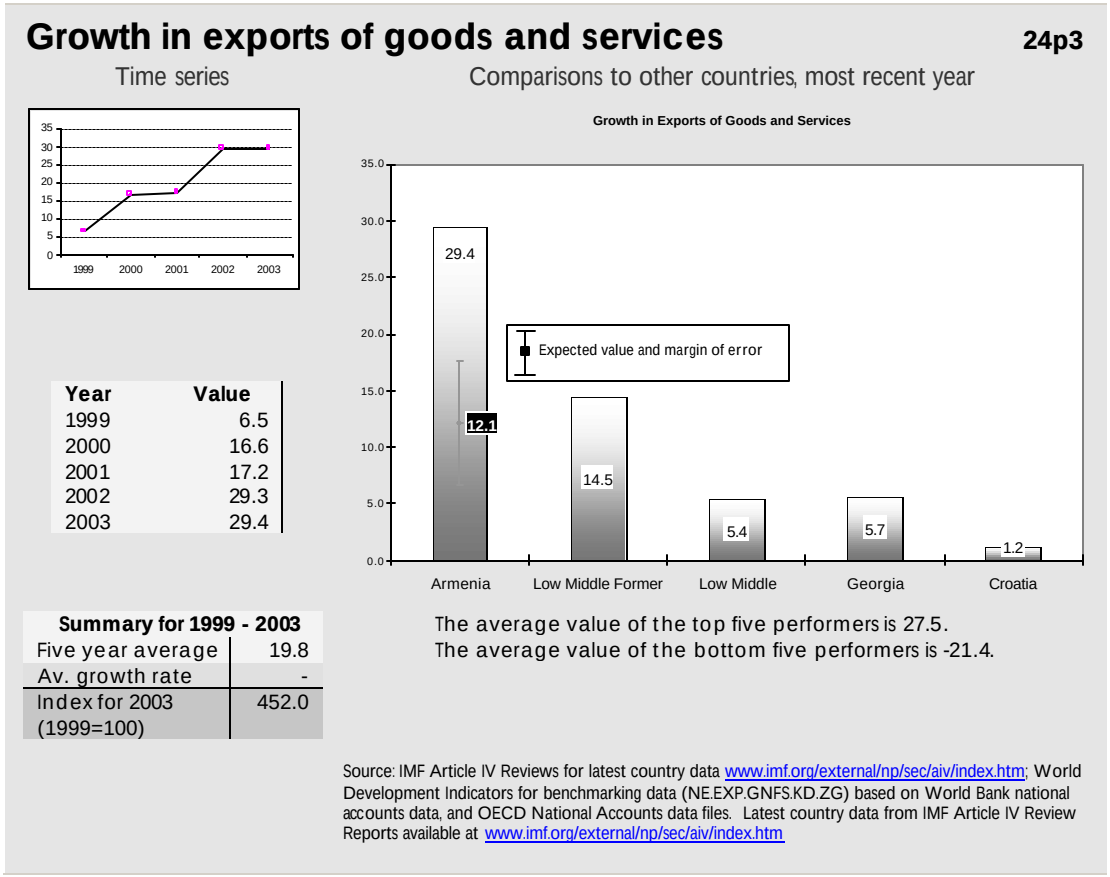
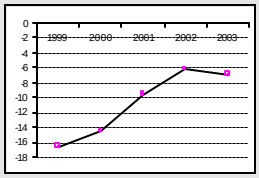


Figure 3-8

Current account balance, % GDP

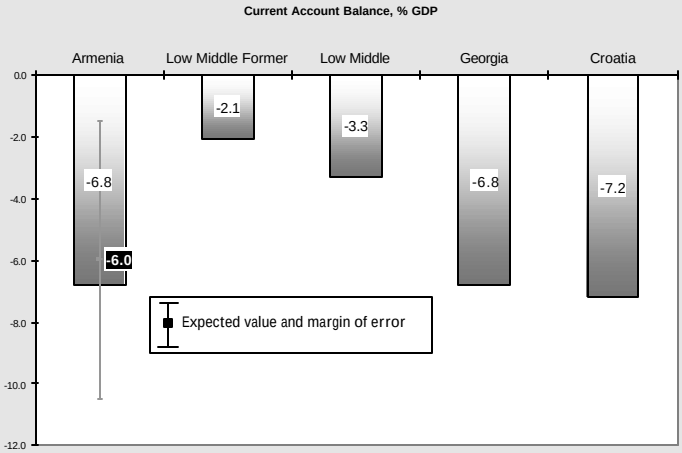
24p1

Time series



Year	Value
1999	-16.6
2000	-14.6
2001	-9.5
2002	-6.3
2003	-6.8

Comparisons to other countries, most recent year



Summary for 1999 - 2003	
Five year average	-10.8
Av. growth rate	-
Index for 2003 (1999=100)	40.9

The average value of the five countries with the highest current account surplus is 13.6.
The average value of the five countries with the highest current account deficit is -208.

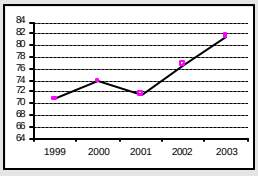
Source: IMF Article IV Reviews for latest country data www.imf.org/external/np/sec/aiv/index.htm; World Development Indicators for benchmarking data (BN.CAB.XOKA.GD.ZS), based on International Monetary Fund, Balance of Payments Statistics Yearbook and data files, and World Bank staff estimates, and World Bank and OECD GDP estimates.

Figure 3-9

Trade, % GDP

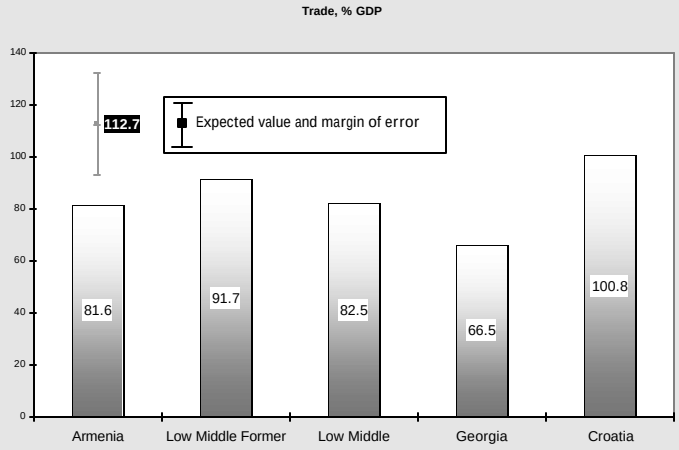
24p9

Time series



Year	Value
1999	70.6
2000	73.9
2001	71.6
2002	76.8
2003	81.6

Comparisons to other countries, most recent year



Summary for 1999 - 2003	
Five year average	74.9
Av. growth rate	3.33
Index for 2003 (1999=100)	115.6

The average value of the five countries with the highest trade-to-GDP ratio is 282.9. The average value of the countries with lowest trade-to-GDP ratio is 22.3.

Source: IMF Article IV Reviews for latest country data www.imf.org/external/np/sec/aiv/index.htm; World Development Indicators for benchmarking data (NE.TRD.GNFS.ZS)

These conclusions suggest that Armenia needs to focus on promoting foreign investment to reduce reliance on foreign transfers; current donor assistance should be cognizant of the need to reduce Armenia's reliance on foreign assistance in the long run. Donors can also support policies that encourage the diversification of the country's export sectors and marketing and distribution channels.

ECONOMIC INFRASTRUCTURE

A country's physical infrastructure—for transportation, communications, power, and information technology—is the backbone for improving competitiveness and expanding productive capacity. Armenian infrastructure appears in a relatively good shape, but uneven. Data benchmarking Armenia's performance on road construction and quality are unavailable, but several reports suggest that foreign financing of road construction has helped bring it up to acceptable standards. However, the cost and availability of telephone service is below par and will contribute to discouraging foreign investment. This suggests that donor assistance in improving the efficiency and availability of telecommunications infrastructure could be helpful.

SCIENCE AND TECHNOLOGY

Science and technology are central elements of a dynamic business environment, and technical knowledge is a driving force behind increased productivity and competitiveness. Even for low income countries, transformational development increasingly depends on acquiring technology from the global economy, adapting it, and applying it in ways that are appropriate to the level of development. A lack of capacity to access and utilize technology prevents an economy from leveraging the benefits of globalization. Unfortunately, few of the international indicators of science and technology in our template are available for judging Armenia's performance, as well as in low-income developing countries. Hence, one must draw inferences from a very limited set of data, serving as proxies for lack of better information.

Armenia is performing as well as Georgia and Croatia and other lower middle-income countries in terms of its patent applications. Government spending on R&D in 2000 was lower than the average for the lower middle-income countries and should be increased for Armenia to play a dynamic role in competitiveness, reducing poverty, and implementing the Millennium goals.

4. Pro-Poor Growth Environment

Rapid growth is the most powerful and dependable instrument for poverty reduction. Yet the link between growth and poverty reduction is not mechanical. In some countries, the structure of development fosters income growth for poor households that is faster than overall per capita income growth, while in other settings 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. These characteristics are associated with improvements in primary health and education, the creation of jobs and income opportunities, the development of skills, micro-finance, agricultural development (for countries like Armenia with large population of rural poor), and gender equality.[12] This section focuses on four areas that contribute to pro-poor growth: health; education; employment and the workforce; and agricultural development.

HEALTH

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

Armenia's performance on many social indicators, including health and education, is relatively good, in comparison to countries of the same income level—a legacy of Armenia's centrally-planned past. Armenians have a long life expectancy, 72.9 years in 2003. This is about five years higher than in the lower middle-income countries. Life expectancy is the broadest indicator of health status. Looking at other health indicators, Armenia's performance is also good: HIV/AIDS prevalence is low (though it is likely to increase in the future), child immunization rates are high, the prevalence of child malnutrition is low, and a high number of births are attended by a skilled physician. The maternal mortality rate of 22 per 100,000 births is lower than in Georgia, though higher than in advanced Croatia.

It is questionable whether current government expenditures are high enough to sustain the healthy, educated workforce that Armenia "inherited," given the apparently low level of government support. Government spending on health stood at 1.2% of GDP in 2003. This is

[12] For purposes of economic growth programming, the template does not cover emergency relief.

significantly lower than the average for comparator country groups, and especially low in comparison to Croatia (over 7%).

EDUCATION

Armenia's education indicators appear relatively good. A large part of this is, probably, the legacy of the Soviet era. The adult literacy rate of 99.4% is high, and significantly better than the average of 85.5% for lower middle-income countries.

However, these basic figures conceal problems as to the type and quality of education Armenians are receiving and whether it is adequately preparing them and the economy for a more competitive global environment or is still oriented toward the production-intensive economy of the past. Expenditures per student on tertiary education as a percentage of per capita GDP stood at 39% in 2001, much lower than in the lower middle-income countries, where they amounted to 54% and expenditures per student in secondary education were average. Armenia needs to increase its investment in education and to re-orient education towards the needs of a competitive market economy.

EMPLOYMENT AND WORKFORCE

The fact that high growth rates have not been labor-intensive means that unemployment remains severe. It appears that Armenia has made inadequate progress in generating employment and reversing the shocks of the transition to a market economy.

Armenia has significant unused potential of relatively well-educated labor. The registered unemployment rate declined from 11.7% in 2000 to a still high 10.1% in 2003 (Figure 4-1). The actual unemployment rates may be more than twice as high as the registered rates. The World Bank estimates that actual unemployment stood at 30.7% (2001), and the ILO estimates it at 25% (2001). This means Armenia has one of the highest unemployment rates among transition countries. High unemployment is particularly noteworthy given that many Armenians have left the country in pursuit of employment. This poses both a challenge and opportunity for Armenia; tapping this potential can be an important source of future economic growth, without doing so high growth rates may be difficult to sustain by increased capital investment alone. Moreover, failure to generate employment will mean that poverty levels will remain high and Armenia will face increasing income disparities between the unemployed and underemployed and those with jobs in growth sectors. Donor assistance may be helpful in removing some structural rigidity in the labor market, facilitating job search, and other measures to help with job creation, in tandem with reforms such as to the financial sector discussed above.

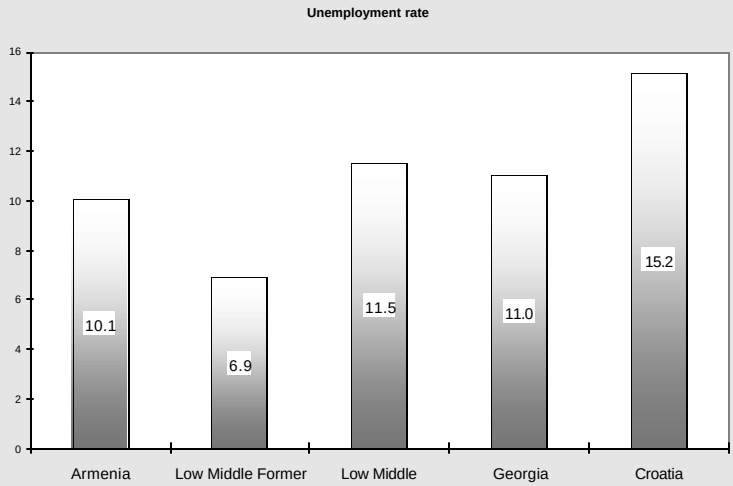
Figure 4-1

Unemployment rate 33p4

Time series

Year	Value
1999	11.2
2000	11.7
2001	10.4
2002	10.8
2003	10.1

Comparisons to other countries, most recent year



Summary for 1999 - 2003	
Five year average	11.05
Av. growth rate	-2.827

The average value of the five worst performers is 21.2.
The average value of the five best performers is 2.6.

Source: World Development Indicators, (SL.UEM.TOTL.ZS) and the National Statistical Service, Republic of Armenia.

AGRICULTURE

As noted in the Economic Structure section, both output and employment in Armenia are concentrated in agriculture to an unusual extent for a lower middle-income country. This sector is characterized by very low labor productivity, and significant variations from year to year due to weather conditions. Nonetheless, the overall trend in agriculture has been reasonably positive, with an average growth rate of more than 5 percent between 1999 and 2003. Over the same period, the average cereal yield has increased by 24 percent to 2,170 kilograms per hectare, virtually equaling the average of 2,219 for lower middle income FSU countries.[13]

Given the continued importance of agriculture in the Armenian economy, donor programs to facilitate further improvements in productivity and better earning opportunities for poor farmers are fully warranted. But the more fundamental problem is to promote investment and job creation outside of agriculture, to foster transformational economic growth and accelerate poverty reduction.

[13] FAO data suggesting that total crop production has been flat over the same period appear to be inconsistent with the other information.