May 2003
IMF Country Report No. 03/130

Azerbaijan Republic—Selected Issues and Statistical Appendix

The Selected Issues paper and Statistical Appendix for the **Azerbaijan Republic** was prepared by a staff team of the International Monetary Fund as background documentation for the periodic consultation with the member country. It is based on the information available at the time it was completed on **April 29, 2003**. The views expressed in this document are those of the staff team and do not necessarily reflect the views of the government of the Azerbaijan Republic or the Executive Board of the IMF.

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International Monetary Fund
Washington, D.C.

INTERNATIONAL MONETARY FUND

AZERBAIJAN REPUBLIC

Selected Issues and Statistical Appendix

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Approved by European II Department

April 29, 2003

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Azerbaijan: Basic Data

Social and demographic indicators (2000)	
Area (in sq. km)	86,600.0
Population (in thousands)	8,202.5
Percent urban	51
Percent rural	49
Population growth rate (in percent)	0.8
Life expectancy at birth (in years)	72
Infant mortality rate (per 1,000 population)	12.8
Physicians (per 1,000 population)	3.6
GDP per capita (in U.S. dollars, at average 2002 exchange rate)	747

	1998	1999	2000	2001	2002 1/
	(In percent of GDP)				
Structure of GDP					
Industry and construction	35.0	39.1	42.5	43.5	45.6
of which: Oil and gas sector	11.5	20.1	30.5	32.0	29.5
Agriculture	18.0	18.2	15.9	14.8	14.2
Other	47.0	42.7	41.5	41.7	40.2
	(Percentage change, unless otherwise indicated)				
Output and employment					
GDP (in billions of manats)	17,203	18,875	23,591	26,578	29,602
Real GDP	10.0	7.4	11.1	9.9	10.6
Employment	0.2	0.1	-0.1	0.3	0.3
Prices and wages					
Consumer price inflation					
Average	-0.8	-8.5	1.8	1.5	2.8
End of Period	-7.6	-0.5	2.2	1.3	3.3
Average nominal manat wage	18.9	9.5	20.2	17.3	21.2
Real manat wage	19.9	19.7	18.1	15.6	17.9
Average nominal dollar wage	22.5	2.8	10.7	12.7	16.8
Real dollar wage	23.5	12.6	8.7	11.1	13.6
	(In millions of US dollars)				
External sector					
Exports of goods	677.8	1,025.2	1,798.7	2,045.9	2,304.9
Imports of goods	1,723.9	1,433.4	1,539.0	1,465.1	1,823.3
Current account balance	-1,364.5	-599.7	-187.3	-49.9	-769.2
(in percent of GDP)	-30.7	-13.1	-3.6	-0.9	-12.6
	(In percent of GDP)				
Consolidated Government					
Total revenue	19.6	18.5	21.2	21.5	28.0 2/
Total expenditure (including net lending)	23.8	23.6	20.8	20.3	28.3 2/
Fiscal balance (- deficit)	-3.9	-4.7	-0.6	0.9	-0.5
Domestic financing	3.9	4.7	0.6	-0.9	-0.4
	(Percentage change, unless otherwise indicated)				
Financial markets					
Manat reserve money, end of period	-22.3	20.9	22.1	9.0	11.0
Manat broad money, end of period	-10.6	5.3	11.1	7.8	15.5
Manat velocity relative to non-oil GDP (ratio) 3/	10.4	10.8	11.7	11.9	11.9
Exchange rate (manat/US$)					
End of period	3,890.0	4,378.0	4,565.0	4,775.0	4,893.0
Period average	3,869.0	4,120.2	4,474.2	4,656.6	4,834.0

Source: Azerbaijan State Statistics Committee, Azerbaijan National Bank, Ministry of Finance; and Fund staff estimates.

1/ Preliminary data.
2/ Revenue and expenditure in 2002 include the estimated value of SOCAR's unpaid energy deliveries to the utilities (5.4 percent of GDP).
3/ Defined as non-oil GDP divided by average manat broad money.

I. Introduction

1. This selected issues paper and statistical appendix provide background information for the 2003 Article IV consultation discussions with Azerbaijan.

2. The biggest medium- to long-term challenge facing Azerbaijan is to ensure an efficient management of the expected very large, but short-lived, surge in oil and gas revenue starting from 2005, so that it would support a sustainable growth of the non-oil sector and alleviate poverty. **Chapter II** aims to provide a guide to the management of Azerbaijan's expected natural resource generated windfall. This chapter provides information on Azerbaijan's endowment of oil and gas deposits and the projected revenue stream, highlights the common characteristics of policies leading to the mismanagement of natural resource wealth in natural resource abundant countries, and outlines a medium- and long-term policy strategy for oil wealth management in Azerbaijan.

3. The development of a strong domestic banking system and liquid financial markets is a key ingredient to ensuring balanced and sustainable economic growth. **Chapter III** reviews the trends in monetization and financial deepening in Azerbaijan, and compares those trends with the rest of the BRO (Baltics, Russia and other countries of the Former Soviet Union). Despite Azerbaijan's impressive achievements on the macroeconomic front, it has so far experienced only a very modest recovery in money demand and financial intermediation, much less than in most other BRO countries. The chapter provides evidence that the limited progress in structural reforms in Azerbaijan—particularly in enterprise, financial sector and judicial reforms—goes a long way toward explaining this slow pace of recovery of money demand.

4. Azerbaijan is continuing the process of developing a modern tax system, consistent both with a market economy and with an economy heavily dependent on natural resource extraction. **Chapter IV** describes recent tax policy developments in Azerbaijan, putting these developments in a regional context. It also provides a summary of Azerbaijan's tax system.

II. Managing Oil Wealth in Azerbaijan

A. Introduction

5. **Azerbaijan has a substantial endowment of oil and gas deposits,** estimated to be the third largest in the Caspian region. Oil production in Azerbaijan is projected to increase sharply starting in 2005, and to reach a peak around 2009 of 1.3 million barrels per day, or four times current production. Gas production is expected to increase in 2006 following the development of the Shah Deniz gas field and construction of the related gas pipeline, reaching an annual peak of twenty billion cubic meters in 2010. Even under conservative assumptions about international oil and gas prices, the expected revenue windfall to the government of Azerbaijan over the next 20 years is substantial. However, given the current underlying reserves and production profile, oil and gas revenue is expected to peak at the turn of the decade and decline gradually thereafter, and to be largely depleted by 2024.

6. **In the near future, Azerbaijan will be facing the challenging task of managing its oil wealth in such a way as to reduce its dependence on potentially volatile and short-lived oil revenue**. It is vital to the country's economic future that the government manages this revenue in a way that allows the diversification of the economy, in order to ensure a steady increase in the living standards of the Azeri population. This is essential, as the oil sector—while a substantial source of revenue for the country—is not a source of much employment, with only 1.1 percent of the Azeri labor force employed in the sector in 2001.

7. **Few countries that have been heavily dependent on the oil sector have succeeded in managing oil-wealth in a manner that allowed the simultaneous development of the non-oil sector**. Norway and Indonesia are frequently cited as exceptions. Indeed, the Norwegian economy has experienced solid economic growth for the last three decades. The fact that Norway was already a developed and diversified industrial economy, with a long tradition of democracy, a market-oriented economy, and solid and mature institutions may largely explain its success. Indonesia undertook prudent macroeconomic policies, which at times required significant expenditure cuts and correction of misaligned exchange rates in order to adjust to volatility in oil revenues, as they sought to ensure that other export commodities (rubber, coffee, timber) continued to generate considerable income (Appendix II-1).

8. **The list of countries that failed to avoid the problems associated with natural resource booms is long,** including Nigeria, Angola, Algeria, Mexico, Venezuela, and Ecuador. For most of these countries, natural resource booms were the impetus for economic disorder and crises (some examples are discussed in Appendices II-2 and II-3). It is crucial that Azerbaijan designs and adopts prudent and coordinated macroeconomic policies and institutional reforms that take into consideration the experience of these countries in order to avoid the mismanagement of natural resource wealth and its implications.

9. **This chapter aims to provide a guide to the management of Azerbaijan's expected natural resource generated windfall**. Section II-B discusses the economic theory

of natural resource booms and explains the standard Dutch Disease phenomenon. Section II-C provides common characteristics of policies leading to the mismanagement of natural resource wealth in natural resource abundant countries. Section II-D explains the institutional arrangements of oil revenue management in Azerbaijan and estimates oil and gas revenue prospects for the country. Section II-E outlines a medium and long term policy strategy for oil wealth management in Azerbaijan, building on the lessons in Section II-C. Section II-F concludes.

B. Economic Theory and Natural Resource Booms

10. **Studies of past experiences of countries rich in exhaustible natural resources reveals that natural resource-driven booms have often led to deterioration in macroeconomic performance and uneven development of industry**. Sachs and Warner (1995) provide empirical evidence that economies with abundant natural resources have tended to grow less rapidly than economies with scarce natural resources. Large foreign exchange inflows due to the exploitation of natural resources often turn into a curse for the country if they are mismanaged. This adverse effect of natural resources has been called "the Paradox of Plenty" (Karl, 1999).

11. **In economic theory, the adverse economic conditions associated with natural resource booms are commonly known as "Dutch Disease."** This phenomenon refers to the loss of competitiveness, or deindustrialization, of a nation's economy that occurs when a natural resource-inspired boom raises the value of the domestic currency, making manufactured goods less competitive, increasing imports and decreasing exports.

12. **A simple two-industry model can describe the Dutch Disease phenomenon.** Suppose two industries are producing goods traded at prices determined in the international market. The industries employ labor from a common pool, combined with another factor specific to that sector and in fixed supply. Each industry uses capital specifically designed for that industry. If the world price of the output for one of these industries rises, the returns to that industry will increase, pushing up wages in that industry. The marginal productivity of labor in the booming industry will increase and attract labor away from the non-booming industry. This change in the sectoral composition of labor is called the *resource movement effect* of the boom (Corden, 1992). Higher wages in the booming industry will also squeeze profits of the other traded-goods industry that has not experienced a rise in price. As a result, the production of the second industry will decline.

13. **The two-sector Dutch Disease model can be extended to three-sectors to more accurately reflect the real world**: a traditional traded goods industry, a booming traded-goods industry and a non-traded goods industry. Higher real incomes from the booming sector lead to increased expenditures on both traded and non-traded goods. This does not cause the price of traditional traded goods to rise, as their price is determined in the international market. By contrast, the price of non-traded goods is set in the domestic market and does rise due to increased demand. This is called the *spending effect* of the boom (Corden, 1992). This *real appreciation* (defined as an increase in the real exchange rate, the

price of nontradables relative to tradables) leads to a *resource movement* from the traditional traded to the non-traded sector, an expansion in the non-traded goods industry and a contraction in the traditional traded-goods industry or Dutch Disease.

14. **This real exchange rate (RER) appreciation is almost inevitable during a boom, and is required to maintain money market equilibrium**. Saving some of the income from the booming sector abroad in the form of foreign assets, or using it to pay off external debts ahead of schedule, could however curb domestic spending, thereby limiting the RER appreciation and its adverse consequences.

15. **The importance of prudent management of revenues accruing from the booming sector and the avoidance of Dutch Disease is magnified in circumstances where natural resource revenues are expected to be short-lived**, as is the case in Azerbaijan. If the boom leaves behind a noncompetitive and contracted traded-goods industry, export incomes will not be able to finance an expanded public sector and the country's need for foreign exchange in the period following the natural resource boom. This will make an economically painful and politically difficult adjustment unavoidable.

C. Country Experiences with Managing Natural Resource Windfalls

16. **The experiences of natural resource abundant countries show that, in general, authorities have tended to act based on optimistic assumptions about the size and extent of natural resource booms**. Decisions regarding the spending of natural resource revenues should be based on the likely duration of the resource boom, the expected income (subject to price assumptions), extraction costs and the time horizon during which exhaustible resources may be depleted. In light of the uncertainties associated with these estimates and the unpredictable path of the terms of trade, it would be logical to take a cautious stand and forego present consumption in favor of security against unfavorable developments in the future. However, the experience of resource boom countries shows that generally, authorities tend to act on optimistic assumptions. Below are some examples of policies that have been common in both developed and developing countries managing windfalls from natural resources boom during the 1970s and 1980s and the implications of these policies.

17. **Authorities frequently did not utilize higher natural resource revenues to reduce budget deficits, and tended to spend them inefficiently**. Counting on high current and future income, expenditures were brought into line with a high income level within a relatively short period of time and as a result, the budget deficit widened (Mexico, Nigeria). In some cases, countries borrowed heavily against their anticipated future oil income (Algeria, Venezuela). Authorities found it difficult to reverse non-sustainable expenditure levels once the windfall subsided. In addition, authorities often granted large wage increases to public sector employees (Trinidad and Tobago, Nigeria, Venezuela) and created new government structures with new positions. Later, financing increased wage bills contributed to higher inflation.

18. **In expectation of continued revenue from the resource boom, authorities undertook ambitious public domestic as well as foreign investment projects with low economic rates of return**, politically attractive payoffs, inadequate screening and undiversified risk (Algeria, Trinidad and Tobago, Nigeria, Iran, Cote d'Ivoire). Often such projects served the interests of well-connected individuals. Furthermore, the maintenance costs of these large, nonviable projects were underestimated and following the resource boom, the government faced the difficult tradeoff of sharply reducing other expenditures, postponing their implementation or stopping project maintenance completely (Nigeria, Mexico, Indonesia). The discontinuation of such projects would leave valuable financial resources wasted and former employees jobless.

19. **The windfall associated with the natural resource boom weakened the authorities' commitment to undertake necessary restructuring of underdeveloped sectors**. Subsidies to these sectors, which were easy to finance during the boom, became hard to maintain after revenues from the booming industry declined. The ailing sectors would have functioned without subsidies, or at least with substantially smaller subsidies, had they undergone the necessary restructuring during the boom times. In general, authorities of countries endowed with rich natural resources tended to be overly confident and underestimated the need for the creation and development of growth conducive institutions and infrastructure (Gulfason, 2001).

20. **The exploitation of natural resources often promoted rent-seeking behavior**, especially under conditions of inappropriately defined property rights and lax law enforcement. Windfall revenue from an export boom also contributed to social problems such as corruption, and caused further imbalance in the income distribution. The neglect of the environmental impact of natural resource exploitation led to unrecoverable damages, requiring a high cost of restoration (Nigeria, Ecuador, Indonesia).

21. **Following a natural resource boom, stop-gap policies adopted to counteract the resultant economic imbalances tended to have a further negative impact on the economy**. After an adverse terms of trade movement, the traditional traded goods sector was not in a position to earn the necessary foreign exchange, and authorities employed protectionist policies such as restrictive quantitative controls, import quotas, higher tariffs and bureaucratic barriers to prevent foreign exchange outflows. Such inward-looking policies hurt the manufacturing sector and made repayment of external debt difficult (Ecuador, Nigeria, Mexico).

22. **Many natural resource rich countries created savings or stabilization funds with the aim of protecting the domestic economy from a volatile path of natural resources revenues or for saving the windfall resources for future generations**. The study of experience of such funds in five selected countries by Fasano (2000) showed that saving natural resource revenues in such funds and investing the funds' resources abroad might have contributed to limiting domestic spending pressures (*spending effect*) and reducing real exchange rate appreciation during periods of a rising price for the natural resource (Norway, Chile). The same study concludes that the experience with stabilization funds has at times

been less positive, due to frequent changes in the fund's rules and deviations from their intended purposes (Venezuela, Oman). **Success did not lie in the creation of such funds, but rather in fiscal discipline and sound macroeconomic management.**

23. To avoid the consequences of a mismanaged natural resource boom, Azerbaijan will need to make important decisions about consumption, savings and investment policy, and not relax its attention to underlying structural problems. If the country does not prepare itself properly before the boom occurs, this may at the end bring economic disorder.

D. The Oil Sector in Azerbaijan

24. **Azerbaijan has a rich natural resource endowment and a long history of oil and gas exploration.** Oil and gas reserves in the country are estimated to be the third largest in the Caspian region.[1] Oil production peaked in 1941 at 172 million barrels of oil, or almost 75 percent of the output of the Soviet Union. From there, production declined steadily, dropping off sharply in the final years of the Soviet Union. Only in the late 1990s did discoveries of new oil and gas reserves lead to a turnaround in output, driven primarily by foreign investment from international partners.

25. **The management of the oil sector falls into two categories**. Soviet-era oil and gas fields are operated by the state oil company (SOCAR) with weak prospects for a further expansion of production. Most new fields are developed and managed under the leadership of international partners. Income from these operations is shared with the government according to pre-determined production sharing agreements (PSAs).

26. **Azerbaijan has signed a number of PSAs for the exploration and development of the country's hydrocarbon resources**. In 1994, the government signed its first foreign-partnered PSA, popularly referred to as the "Contract of the Century" with the international consortium, the Azerbaijan International Operating Company (AIOC), to develop the Azeri, Chirag and Guneshli (ACG) oil fields in the Azerbaijan sector of the Caspian Sea. In addition, 21 other PSAs have been signed and ratified since then for the exploration and development of the country's onshore and offshore hydrocarbon reserves.

27. **Despite some significant oil and gas discoveries, most PSAs have yet to find commercially viable oil or gas deposits**. In 1999, potential recoverable natural gas resources in excess of 14 trillion cubic feet were confirmed in the Shah Deniz field, reportedly the largest natural gas discovery since 1978. In 2002, total oil reserves in the ACG fields were determined to be higher than anticipated at 5.4 billion barrels. Current production stands at around 130,000 barrels per day (bpd), with peak production of slightly over a million barrels of oil per day anticipated at the turn of the decade. The recently sanctioned pipeline project from Baku to Ceyhan has greatly enhanced these prospects. However, the

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[1] Source: *Oil and Gas Journal, Energy Information Administration* (as of July 2002) (http://www.eia.doe.gov/emeu/cabs/caspgrph.html)

success of the other 20 PSAs has been limited. A few PSAs have been abandoned due to the lack of commercially viable oil deposits. To date, only one other PSA (Salyan Oil Consortium), in addition to ACG, are in the production stage while a few others are under discussion for abandonment.

Current Institutional Arrangements for Managing Oil Revenues

28. **The separate operational structures for old and new fields have led to a division in the management of related oil and gas revenue**. Figure II-1 summarizes the government's main oil revenue sources and the two respective government bodies—the state budget and the State Oil Fund – involved in the management of oil and gas revenues. The consolidated government receives *profit oil* and *income tax* from the development of new fields as spelled out in the PSAs with international partners. These flows accrue to the State Oil Fund. The old fields, operated by SOCAR, generate *income tax* revenue, which is paid to the state budget.

29. **The State Oil Fund (SOFAZ) is the key institution for the management of oil wealth in Azerbaijan** (Box II-1). It was established in 1999 as an extrabudgetary fund in order to ensure transparency in the management of oil revenue and to curtail the use of assets. Its main purpose is to save funds for future generations, but assets are also used for investment projects. As of end-December 2002, the total assets of SOFAZ amounted to US$693 million.

30. **Significant additional oil revenue accrues to the state budget primarily from SOCAR tax payments.** In 2002, oil and gas related revenues of the state budget were US$340 million, about US$100 million higher than receipts of SOFAZ. However, as SOCAR's production will decline over time and new fields are developed, inflows to the oil fund will dwarf state budget revenue as early as 2006 (see discussion below). Unifying the government's management functions for oil revenue should be an important consideration in view of the challenges arising from the expected oil boom, as discussed below.

Prospects for Government Oil and Gas Revenues

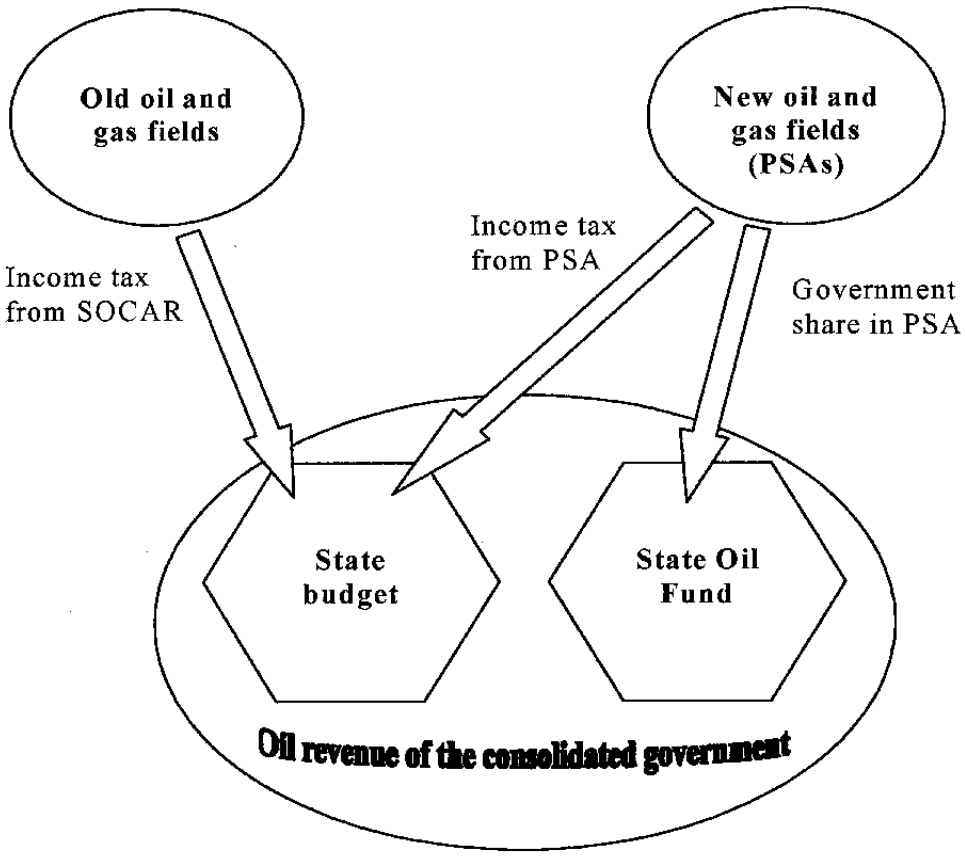
31. **Substantial, but short-lived, revenues associated with the development of the oil and gas fields are expected to accrue to the country** from (i) profit oil and profit gas according to the terms of the ACG and Shah Deniz PSAs (ii) profit tax payments from partners under the PSAs and (iii) SOCAR tax payments. Figure II-2 presents the accumulation of natural resource revenue from the three sources for different production scenarios. Projections for SOCAR revenue are based on a slightly declining output profile consistent with current production expectations. SOFAZ inflows of profit oil and profit tax associated with the development of the ACG and Shah Deniz oil and gas fields, and are calculated under three production profiles; the baseline scenario which reflects the stated 5.4 billion barrels of ACG oil reserves, an upside sensitivity (scenario A) consistent with an

Box II-1: State Oil Fund of the Azerbaijan Republic

The State Oil Fund of the Republic of Azerbaijan (SOFAZ) was established in 1999 as an extra-budgetary institution. Its main objective is the professional management of oil and gas related revenues for the benefit of the country and its future generations—i.e., savings. The inflow and outflow rules of Azerbaijan's oil fund have been designed to reflect this feature and to save a large part of government oil and gas revenue. SOFAZ receives all government revenues associated with the post-Soviet oil and gas production fields. The oil fund has no immediate stabilization objective and net flows are not related to the oil price level or a budgetary position. On the outflow side, Azerbaijan's oil fund rules currently prohibit spending in excess of inflows in any given year. A conservative expenditure policy has ensured a steady growth of savings in the fund. Asset management regulations require that financial assets must be kept offshore at highly rated banks. The fund is not permitted to extend credits to private or state organizations and assets cannot be used as a guarantee against any obligation.

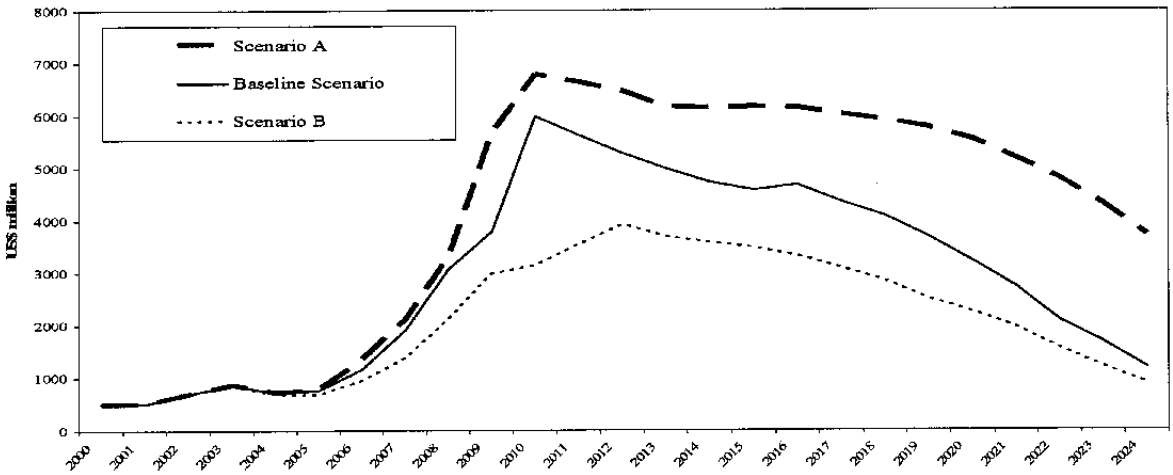
In order to reduce political pressures to spend windfall oil revenues rapidly, the government established the oil fund under direct presidential control. The members of SOFAZ's supervisory board are appointed by the President of Azerbaijan. An independent auditor conducts an annual audit of the fund, and the audit report is made public. SOFAZ reports quarterly in the press on total inflows received, expenditures and interest earned. The creation of an oil fund in Azerbaijan has had a positive impact on fiscal discipline and contributed to better transparency and accountability of oil revenue management.

Figure II-1: Sources of Oil and Gas Revenue in Azerbaijan



assumption of reserves higher than the baseline scenario and a downside sensitivity (scenario B) consistent with an assumption of reserves lower than the base case, over the period 2000-2024. All three scenarios utilize World Economic Outlook (WEO) oil price assumptions as of end-March 2003. Under the baseline scenario, substantial oil and gas-related revenues are expected to accrue, with revenues increasing twelve-fold during the period 2000-2010. However, this sizeable increase in revenues is short-lived, as following the peak in 2010, inflows to the SOFAZ decline fairly rapidly and end after 2024, absent a significant new hydrocarbon discovery.

Figure II-2: Azerbaijan Oil Revenues, 2000-2024*



Sources: Azerbaijan International Operating Company and IMF staff estimates.

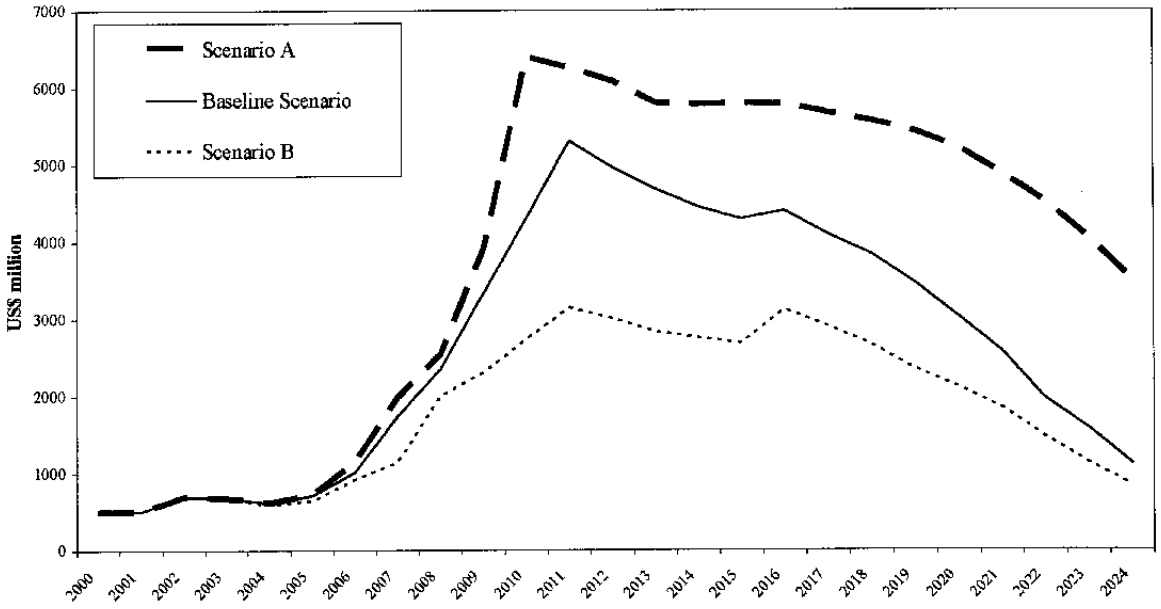
* Based on WEO oil price assumptions and excluding asset management revenue.

32. **Even under more conservative price assumptions the expected revenue stream is large**. Figure II-3 presents the same three production scenarios, but assumes a fixed US$20 per barrel oil price. Even under this more conservative price assumption, revenues are expected to increase almost nine-fold during the period 2000-2010 for the baseline scenario. As these charts indicate, even under a wide range of production profiles and oil price assumptions, a similar pattern of oil revenue receipts emerge: an accrual of substantial revenues during a relatively short period of time.

E. Strategy for Managing Oil Wealth

33. **With this significant asset stock, the key challenge for the government will be to strike the right balance between current expenditures and conserving assets for future generations**. The government's decision about how much to spend and how much to save involves important trade-offs. For example, addressing poverty and infrastructure needs quickly may alleviate poverty in the short-run, but may pose a risk to macroeconomic stability and damage the long-term growth potential of the non-oil sector. On the other hand, using a measured approach to the use of oil revenue assets will require a strong political commitment and public engagement to fend off political pressures for increased spending, and could be hard to justify in the face of undeniable and substantial needs.

Figure II-3: Azerbaijan Oil Revenues, 2000-2024*



Sources: Azerbaijan International Operating Company and IMF staff estimates.

* Based on a fixed US$20/barrel oil price assumption and excluding asset management revenue.

34. One way of addressing this challenge is to separate the expenditure problem into a long-term strategy focused on conserving financial assets for future generations, and a medium-term strategy within this framework aimed at meeting immediate policy challenges. Determining expenditure priorities and fine-tuning medium and long-term policies will be a recurring problem for the government. Separating this problem into a two-step process reduces its complexity and makes it more tractable. The proposed approach provides no specific expenditure plan, as that will require critical political decisions. Instead, it provides a framework for the government to use in determining its own medium-term plan consistent with long-term policy objectives. As economic conditions change, these plans will have to be regularly updated and modified.

35. The next section discusses the determination of a long-term strategy which sets a ceiling for feasible expenditure plans in the medium-term. The subsequent section discusses medium-term policy options.

Long-Term Consumption and the Sustainable Non-Oil Balance

36. Any long-term savings objective limits the amount of available assets for immediate consumption in order to spread out its use over time. The concept of a **sustainable non-oil deficit ceiling translates this restriction into an upper bound** for the permissible government deficit consistent with the savings objective. In other words, it defines what the government can afford to spend over the long term without exhausting its assets, and

corresponds to a path of expenditures that can permanently be financed from the use of oil revenue. The non-oil balance—as a direct measure of the level of activity that is financed from oil revenue—is a crucial guide for fiscal policy in oil producing countries. Other common measures of government activity, such as the overall balance or the current balance, obscure the actual fiscal stance as they are affected by changes in oil prices (Ossowski and Barnett 2002).

37. **One long-term objective would be to ensure that spending from oil wealth remains constant in real terms, thus providing a permanent income stream** (Box II-2). Under this strategy, each future generation would be able to consume the same real amount out of oil and gas wealth. Alternative objectives could be constant per-capita real spending or constant spending as a percent of non-oil GDP. The per-capita concept takes population growth into account, while the GDP concept links expenditure to economic growth, and thus saves a greater share of assets for future generations. Empirical estimates show that the concepts have similar implications; namely, that they permit, in the near future, high expenditures relative to current levels. Since Azerbaijan has large social and investment needs, the more frontloaded approach of constant real expenditures appears reasonable. As non-oil GDP grows in coming years, future generations will be able to afford to be relatively less dependent on oil wealth. A further advantage of using the concept of constant real expenditures is its computational simplicity and ease of interpretation, which makes it a suitable object for policy discussions.

38. **Figures II-4 and II-5 provide estimates of the sustainable non-oil deficit for the period 2003-2024 that ensure constant real expenditures from oil wealth**. The calculations are based on the production patterns and resulting revenue flows discussed above.[2] The implications of two oil-price scenarios are analyzed. The figures assume the long-term nominal interest rate is 7 percent, inflation is 2 percent, and the nominal non-oil sector growth rate is 5 percent. The general trend of the sustainable non-oil deficit is downward sloping from a fairly high level in 2003-2010 to below 10 percent of GDP by the end of the period. As the economy grows at a higher rate than inflation, the share of real expenditures as a percentage of GDP declines. For the baseline case, non-oil deficits approach 8 percent of GDP by 2024 for both price scenarios. A one point reduction in the real interest rate assumptions would tighten the sustainable ceiling by roughly 3 percentage points of GDP at the beginning of the period and by about one percentage point at the end of the period.

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[2] Revenue from interest earnings is not included, as returns depend on adherence to a particular expenditure strategy, while this expenditure ceiling only serves as an upper spending limit. Inclusion of interest earned, assuming the non-oil deficit was always at the ceiling, would increase the non-oil deficit ceiling by about 4 percent of GDP in 2002.

Box II-2. Sustainable Expenditure from Oil Wealth

The *sustainable expenditure* from *oil wealth* for a given fiscal year is the amount that can be consumed and still leaves sufficient oil and gas oil wealth for an equal real amount to be consumed in all later fiscal years. *Oil wealth* at a particular point in time is the sum of the value of current financial assets and the present value of expected future oil and gas revenues. *Sustainable expenditure* for any particular fiscal year can be calculated through the following steps.

Collect the following data:

The value of oil and gas assets at the end of the previous fiscal year (V)

Projections for expected oil and gas revenues for fiscal year (R_1) and future fiscal years (R_2 , ... , R_n)

Estimated average nominal rate of return (or interest rate) on investments in the future (r)

Estimated rate of inflation (p)

Calculate:

Oil Wealth $$W = V + \sum_{t=1}^{n} \frac{R_t}{(1+r_t)^t}$$

The level of sustainable expenditures is pinned down by the requirement that the value of Oil Wealth must be equal to the present value of all future expenditure C i.e.:

$$W = C.$$

The present value C is given by the sum of sustainable expenditure growing at the rate p:

$$C = \sum_{t=0}^{\infty} \frac{E_{2003}(1+p)^t}{(1+r)^t} = E_{2003}\frac{(r-p)}{(1+r)}$$

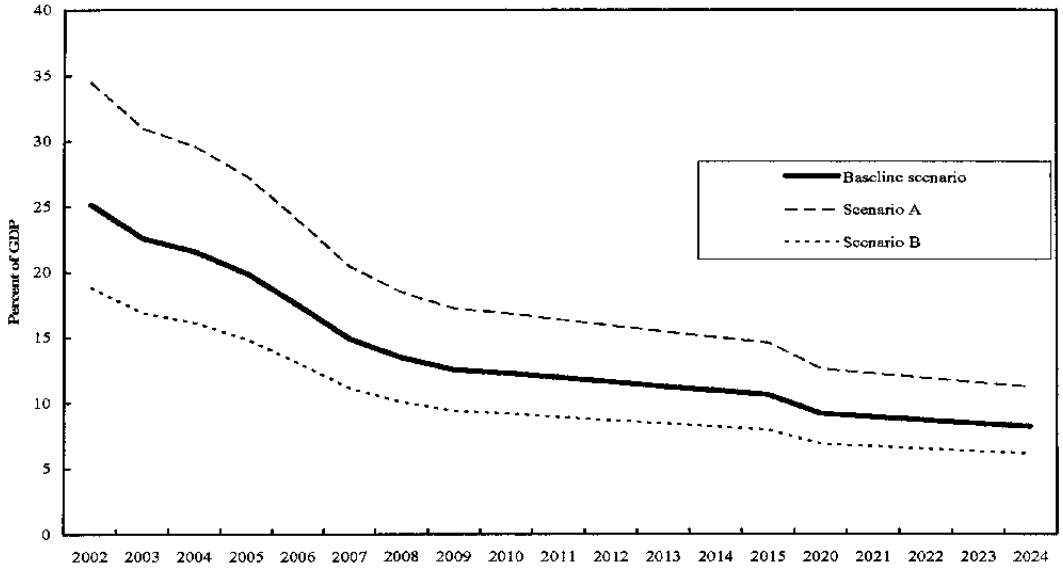
where E_{2003} denotes the level of sustainable expenditures in 2003.

Sustainable expenditure E_t in any given year t can be easily obtained by solving this condition.

$$E_t = E_{2003}(1+p)^t = W\frac{r-p}{1-r}(1+p)^t$$

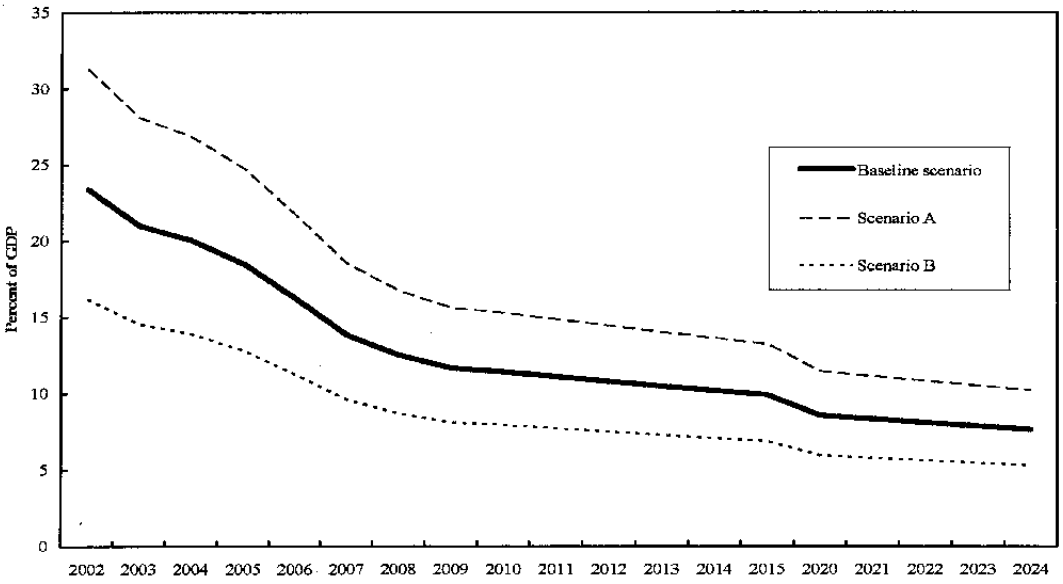
Intuitively, this equation states that sustainable expenditure is equal to interest earned minus inflation, which is the amount that needs to be saved in order to have assets grow at the same rate as expenditures.

Figure II-4: Sustainable Non-Oil Deficit Ceiling, 2002-2024 (WEO oil prices)



Sources: Azerbaijan International Operating Company and IMF staff estimates.

Figure II-5: Sustainable Non-Oil Deficit Ceiling, 2002-2024 ($US 20 per barrel)



Sources: Azerbaijan International Operating Company and IMF staff estimates.

39. **The conservative price scenario still leaves a sizeable cushion for expenditures compared to planned 2003 spending**. Under the low-price, low-production scenario (the most conservative scenario), the sustainable deficit ceiling would be 11.7 percent of GDP for 2003. This most conservative estimate would still be in excess of the currently envisaged level in the budget of 9 percent of GDP, but clearly any future spending increases would have to be monitored for consistency with the long-term expenditure ceiling.

40. **Adherence to the expenditure ceiling would be crucially important to ensure that long-term savings objectives are met.** The sustainable deficit ceiling would set a simple and transparent rule for the level of expenditures financed from oil revenue, consistent with long-term savings objectives. It would be easy to measure and adherence to the implied rule could be well monitored.

41. **That said, the sustainable deficit ceiling is not meant to be an unalterable target**. Rather, it is determined on the basis of a savings prescription that needs to be regularly reviewed in light of changing information and economic conditions. Like any good fiscal rule, the sustainable deficit ceiling needs to be both simple and flexible. As new and more accurate information on production patterns, natural resource reserves or price developments become available, the government should review the appropriateness of its long-term assessments. Revisions should be made at regularly spaced intervals (e.g., 3-5 years), or if information becomes available indicating that the given sustainable deficit ceiling may no longer be prudent (e.g., too optimistic production assumptions). Formal reviews should be made on the basis of pre-specified rules clearly identifying changes made to relevant variables and the underlying reasons for any changes.

42. **Finally, special considerations may lead the government to at least temporarily pursue a savings path different from the sustainable ceiling.** One example is **demographic financing needs** associated with pensions obligations related to population aging. Declining birth rates and increased life expectancies can pose significant financing requirements on future generations. In this case, precautionary saving in anticipation of future use of assets may be a prudent policy and require a tighter savings path than one permitted by the sustainable deficit ceiling. Once the financing needs materialize, the government can then increase spending, which could result in spending levels above the prescribed sustainable ceiling. A wide ranging debate in Norway on pension funding led to the postponement of consumption of oil assets in order to form reserves for future pension payments. In Azerbaijan, a similar situation is conceivable. A sizeable post World War II birth cohort will begin to retire starting in 2010. Projected population growth rates will only moderately increase the labor force and the expected increase in the old-age dependency ratio could therefore, put severe strains on the existing pay-as-you-go pension system. The government should carefully analyze whether any special considerations, such as this, would warrant a more ambitious savings trajectory than the one prescribed by the sustainable non-oil deficit ceiling.

The Medium Term: Managing Macro-Stability and Non-Oil Sector Development

43. **Estimates for the long-term sustainable non-oil deficit appear not to constrain expenditure plans for the use of oil and gas revenues over the medium-term in Azerbaijan.** The expected oil revenue boom, while short-lived, is substantial compared to current levels of economic activity. Under existing assumptions for production plans and oil prices, the government could afford a non-oil deficit far in excess of the planned amount and still be able to afford the same constant real expenditures each year. Thus, long run considerations are an insufficient guide for near-term expenditure plans.

44. **Therefore, the government's key challenge is to determine the level and composition of oil revenue financed expenditures that are appropriate for the medium-term**. The government will be faced with the difficult question of how fast it should accelerate spending within the ceiling of sustainable expenditures, and on what it should spend the resources. While there are no simple prescriptions to guide the government through these decisions, a number of critical mistakes made by other countries need to be avoided.

45. **Country experience with oil revenue booms, as discussed above, have identified three crucial policy objectives for the medium to long-run, the attainment of which are closely interconnected**:

- Maintenance of macro-stability
- Development of a productive non-oil sector
- Efficient use of assets.

46. **Ill-timed and excessive increases in the use of oil revenue can be disruptive to the economy**. As discussed above, high public expenditures can lead to economic overheating, resulting in wage and price pressures and real appreciation, as witnessed by many countries faced with a revenue boom. These destabilizing effects can severely harm private sector development and tilt demand away from a competitive export industry towards a bloated domestic services sector. Thus, maintaining macro-stability is a key condition for non-oil sector growth. Finally, an efficient use of resources is complementary to meeting the first two objectives. Here, tasks range from designing an effective institutional structure for policy design and coordination to capacity building for project appraisal, selection, and ex-post evaluation. Effective resource management is also key for ensuring long-term sustainability of expenditures.

Policy Options in the Medium Term

47. **Meeting these objectives will require the improvement of existing policy instruments, design of comprehensive medium-term policies, and a constant review of the adequacy of given policy choices**. Traditional policy instruments will have to adapt to the new challenges of large asset flows in order to cope with the implications for economic stability. Policies for the medium-term have to be well coordinated and comprehensive to

ensure consistency with non-oil sector development. Finally, chosen policies will have to be sufficiently flexible (e.g., prioritized) to allow an adequate response to changing economic conditions.

48. **The main burden of maintaining economic stability will be on fiscal policy, since monetary instruments have only limited capacities to manage resource inflows.** Given a modest holding of government securities and a thin market for central bank bills, sterilization of excessive spending of the oil boom may be difficult to accomplish (see Box II-3). By directly controlling the injection of oil revenue into the economy, fiscal policy is therefore the key tool for macroeconomic management.

Box II-3. Monetary Policy Response to Natural Resource Booms

Experience with natural resource booms suggest that some degree of real exchange rate (RER) appreciation is inevitable, and actually desirable to affect the reallocation of factors of production in the economy necessary to accommodate these booms. The response of monetary policy has important implications for the channels through which this RER appreciation takes place.

A resource boom typically raises domestic absorption, and therefore, the demand for money in real terms. If monetary policy does not accommodate, at least in part, this increase in money demand through an expansion of money supply, the result may be an excessive nominal appreciation of the exchange rate. On the other hand, if the increase in absorption is particularly strong, full accommodation may lead to an excess supply of money, and thus higher inflation, undermining the main goal of monetary policy—i.e., the maintenance of domestic price stability.

The key therefore, is to strike a balance between price stability and nominal appreciation. Prudent fiscal policies are essential for this balance to be reached, particularly in the case of countries with underdeveloped domestic financial markets, such as Azerbaijan. Experience from Asia, for example, suggests that open market operations have proved inadequate to stabilize monetary growth, and thus inflation, during periods of particularly severe disturbances (Tseng and Corker 1991). This reflected a variety of factors, but most importantly included an inadequate development of markets and instruments for open market operations.

In the case of Azerbaijan, sterilization of excessive spending of the oil boom may be difficult to sustain, in view of the Azerbaijan National Bank's (ANB) limited holding of securities and a thin market for ANB bills. Under these conditions, the effectiveness of open market operations will be constrained for the foreseeable future. It is therefore imperative that fiscal policy remains prudent and consistent with the maintenance of macroeconomic stability, and that it does not lead to an excessive appreciation of the real exchange rate. There is also a need to strengthen coordination of macroeconomic policies between the Ministry of Finance (MOF) and the ANB.

49. **Strengthening fiscal policy will require a less fragmentary approach to managing the use of oil revenue and a careful analysis of the overall implications for domestic demand.** Currently, oil revenue is managed by different government agencies (the state budget and SOFAZ) and the use of resources is not systematically coordinated. While assets from the SOFAZ are primarily directed towards capital projects, revenues accruing from SOCAR's domestic operations are perceived as a general government finance source. In addition, while the government seeks to use the oil fund as an instrument for saving oil wealth, completely separate arrangements—independent of the oil fund—are being made for stabilizing the flows of oil revenue to the state budget. This treatment clouds the true dependency of government operations on oil revenue and makes coherent demand

management difficult. **By treating all oil revenues as a single source of financing, the government could better manage the overall impact of its use on the economy**. In conjunction, the government should develop and maintain a model for projections of oil and gas revenues for planning purposes.

50. **Strategic planning and enhanced coordination of macroeconomic policies will be crucial to accomplish this goal.** In particular, the annual budget should be firmly embedded within a sound medium-term expenditure strategy, which balances the needs of macroeconomic stability and non-oil sector growth with expenditure priorities from the Poverty Reduction Strategy Paper (PRSP) and the government's investment program. The appropriateness of fiscal and monetary policy will have to be regularly re-assessed (e.g., quarterly), discussed in a broad government forum, and realigned if necessary. In addition, government institutions, such as the public investment unit, will have to be strengthened as discussed below.

51. **In striving for macroeconomic stability, the government should avoid large swings in fiscal activity by smoothing changes in the non-oil deficit and only gradually accelerating oil revenue spending**. High fiscal volatility harms private investment and economic growth, as demonstrated by experiences in other countries with oil windfalls. Fiscal volatility is also likely to contribute to instability of the real exchange rate, impairing growth in the non-oil sector. Therefore, the government should strive for a predictable government expenditure path with a smooth non-oil balance over the medium run, and should move gradually to this sustainable non-oil deficit.

52. **Equally important for managing the macro economy and non-oil sector growth is carefully planning the content and composition of overall expenditures**. As government spending affects domestic demand and influences private sector activities, the specific use of oil revenue greatly influences economic stability and non-oil sector growth prospects.[3] Therefore, when designing its medium-term strategy, the government should thoroughly analyze the composition of its overall spending plans:

- *Current versus capital spending*? Since oil revenue is an exhaustible source of financing, it is generally **preferable to direct spending toward capital projects.** Financing needs for investments are by nature limited and not permanent as is the case for current expenditures. In addition, current spending (e.g., public wages) often directly fuels domestic consumption, as consumers demand domestically produced goods and services. On the other hand, **investment projects with high import content** may have only a moderate direct effect on domestic demand.

[3] Azerbaijan has little non-concessional government debt, and therefore use of oil revenues for early repayment of non-concessional debts is not a viable option.

- *What type of capital investments should be undertaken*? A key role of the government is to generate conditions in support of private sector development, including a well-designed and reliable physical infrastructure. Thus, **capital investments should target basic infrastructure needs**, such as the reliable provision of energy and water, and an efficient transport and communications network, particularly in regions outside the capital city. Such capital expenditures will have a direct positive impact on the competitiveness of the non-oil sector, stimulate regional development and help offset the negative effects of an appreciated real exchange rate.

- *What are the implicit commitments contained in capital expenditures*? Large investment projects not only require expenditures over several years, but also often bring with them **substantial future maintenance costs**. These costs are often underestimated and have led to a significant waste of resources when maintenance costs could no longer be afforded. In this context, the design of a notional maintenance fund could be considered (Box II-4). Similarly, expansions in pension and social programs can have significant long-term implications which could erode the government's ability to manage the use of its oil revenue assets.

Box II-4: Establishing a Notional Investment Maintenance Fund

A responsible investment strategy should not only incorporate immediate project costs, but also proactively save for long-term maintenance costs. These recurring costs are often vastly underestimated and have led to the significant waste of assets in many countries with resource booms. One possible way to avoid this problem would be to identify already committed assets for future capital maintenance purposes. This could be done by creating a notional investment maintenance account. Whenever a new investment project is undertaken, this account would be credited with the present value of future maintenance costs of the project. At the same time, the stock of available assets in the oil fund for financing new projects would be reduced by the same amount. During budget preparation, the government would first have to meet maintenance costs for existing capital projects from the maintenance fund, and only afterward could it commit new assets from the remaining asset pool for new investment projects. In conjunction with a limit on the non-oil deficit, this arrangement would ensure that no resources are committed in excess of the sustainable expenditure ceiling. The maintenance fund would also demonstrate to the public how much oil and gas assets have already been committed, and how much are truly available for use.

53. **One way increased non-oil deficits can strengthen the private sector is through reductions in tax rates.** Instead of using oil revenue exclusively for additional expenditures, the government could alternatively reduce the tax burden within the country by lowering taxes on the non-oil sector. This policy has the advantage that it can potentially reach a large share of the population and thus broadly distribute the benefits from oil wealth. In addition, a lower tax burden can ease competitiveness pressures from a higher real exchange rate and offset some of the potentially damaging effects from increased oil-revenue spending.

54. **However, the government should carefully weigh the benefits and costs before undertaking any far reaching tax policy changes.** First, tax policy should be evenly applied by removing widespread exemptions. Significant uncertainty about the government's

oil wealth warrants caution. Reductions in tax rates are likely to be permanent, since tax cuts are usually hard to reverse. An erosion of the domestic tax base could therefore backfire if the value of oil assets has been overestimated or assets are depleted faster than anticipated.

55. **Finally, addressing medium-term challenges for fiscal policy design requires significant capacity building.** In particular, the government needs to increase its ability in fiscal policy analysis and project appraisal in order to effectively implement a viable medium-term fiscal policy. Improved fiscal policy analysis will strengthen the government's ability to assess current developments, identify the appropriate fiscal stance, and react when necessary to changes in the short-term macroeconomic environment. In parallel, the government needs to devote additional human resources to strengthening macroeconomic policy formulation and building a viable public investment unit for expenditure planning and project evaluation. This will allow the government to prepare prioritized expenditure plans, review the productivity of individual projects, and assess consistency with the overall policy objectives of macro-stability and non-oil sector growth. In the absence of adequate institutional capacity, the government may run the risk of undertaking projects with low social returns leading to a waste of resources, as has been documented above.

F. Conclusion

56. **In the near future, Azerbaijan is expected to benefit from a substantial, but short-lived, oil and gas-related revenue windfall**. Even under conservative assumptions, revenues accruing to the country are expected to average around US$800 million during the period 2003-2007 and over US$2 billion per year during the period 2008-2024, compared to 2002 GDP of just over US$6 billion. As few countries have been successful in managing natural resource wealth of this relative magnitude, the government faces a key and immediate challenge: managing this short-lived natural resource wealth in such a manner as to avoid the pitfalls of Dutch Disease and ensure the simultaneous development of the non-oil sector.

57. This chapter aims to provide a broad policy agenda for the government for managing this natural resource wealth. The key policies and recommendations in the chapter are as follows.

Institutional Arrangements and Capacity

- **Consolidate oil revenue management and treat all oil revenue as one source of financing.**
- **Develop and maintain a model for long-term projections of oil and gas revenues.**
- **Develop institutional capacities for project selection, monitoring, and evaluation**, including the establishment and development of a project appraisal department as well as capacity building in fiscal policy analysis.

Level of Expenditures

- **Set expenditures of oil and gas revenues consistent with a long-term savings objective** of conserving assets for the future, particularly given the short-lived nature of the windfall. The goal should be to ensure constant real expenditures out of oil wealth.

- **Use the concept of a sustainable non-oil deficit to provide an expenditure ceiling for the use of oil assets** that is consistent with this long-term savings objective. Under the baseline scenario for oil and gas reserves and conservative assumptions for the price of oil, substantial non-oil deficits are affordable until 2010, with subsequent steadily declining non-oil deficits which approach 8 percent of GDP by 2024.

- **Avoid large fluctuations in the non-oil deficit.**

- **Revise the estimate of the sustainable non-oil deficit in light of new information**. The appropriateness of the sustainable non-oil deficit should be reviewed at regular and sufficiently spaced intervals, based on updated information on oil and gas reserves, production patterns, and price developments.

- **However, as the sustainable non-oil deficit provides only an expenditure envelope for the medium term, do not increase expenditures to this ceiling in the near future.** This would not be advisable given the macroeconomic implications of excessive growth in spending. In particular, a rapid increase in expenditures consistent with this ceiling could exert substantial upward pressure on the exchange rate with all its negative consequences for the non-oil sector. It could also strain the government's institutional capacity for planning, executing and monitoring expenditures, resulting in substantial waste.

- **Take macroeconomic stability considerations into account when deciding how much oil revenue to spend in the medium term**. Strengthened coordination between the Ministry of Finance and the Azerbaijan National Bank will be imperative.

Composition of Expenditures

- **Revenues should be utilized primarily for investment rather than consumption**. Expenditures on physical and human capital will provide a solid foundation for the future growth of the country, while excessive current consumption could have a potentially destabilizing impact in the short-term. Capital expenditures have the added advantage of a substantial import content, providing an automatic means of sterilizing part of the substantial foreign exchange inflows associated with the oil windfall.

- **Capital investment should target the building and maintenance of a well-designed physical infrastructure necessary for improving the competitiveness of the non-oil sector**, including the reliable provision of energy and water and an efficient transport and communications network, particularly in the regions outside the capital city.

- **A notional investment maintenance fund should be established for meeting recurrent costs** associated with physical infrastructure projects. This would increase transparency of already committed resources and ensure proactive savings for long-term maintenance costs.

- **Reductions in tax rates could be an alternative to increased expenditures, with the direct positive impact on competitiveness offsetting, at least in part, the negative effects of real appreciation.**

58. **Political pressures for excessive and speedy expenditures of oil wealth are inevitable**. For the government to withstand such pressures will be necessary for the economy's long run development. But this will not be easy. The government will need to demonstrate to the population not only that oil wealth is being saved for future generations, but that it is also being used to effectively benefit the current population of Azerbaijan. The policies recommended above—focusing on infrastructure development and protecting non-oil competitiveness—should help generate new employment opportunities and meaningful economic growth. If the government can succeed in doing this, and also succeed in explaining to the population the dangers—not just to future generations but to the current population of Azerbaijan as well—of excessively rapid expenditures out of oil wealth, Azerbaijan may succeed where so many other oil producing countries have failed: It may manage to use its oil wealth to help develop the non-oil sectors of its economy.

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Oil and Economic Development in Indonesia

Indonesia's oil industry is one of the world's oldest. Indonesia ranks 15th among world oil producers, with about 2.4 percent of world oil production. The country has a mixed economy in which the government, in addition to the regulation and supervision of the economy, is engaged directly in economic activities through state-owned enterprises operating in various sectors.

Between 1960 and 1966, the country suffered from hyperinflation, and GDP grew at an average rate of only 1.8 percent per annum. In 1966, the government started the implementation of an economic policy program ("New Order") designed by a team of presidential economic advisors. Stabilization was achieved soon thereafter in 1971 with 4 percent inflation and 6 percent GDP growth. In 1973, oil exports accounted for only around a third of total exports because of the country's richness in natural resources (rubber, coffee, timber). International reserves grew rapidly after the **first oil boom in 1972-78** and the windfall oil revenues of 1973-78 allowed the authorities to increase spending on development. Around half of mining value-added was used to finance public investment, one third was utilized to reduce the trade and non-factor services deficit and the rest was spent on consumption. The rapid growth of international reserves together with high domestic spending contributed to a sharp real exchange rate appreciation, and many non-oil sectors, such as rubber and manufacturing, started to experience difficulties. The government regarded increasing dependence on oil revenues as risky in light of uncertain prospects for oil prices and realized that future growth had to come from labor intensive exported goods. In 1978, the government decided that the devaluation of the domestic currency would help to restructure the economy to make it less reliant on oil and to move towards manufactures and non-oil exports. The devaluation of the currency by 50 percent was followed by inflation of 22 percent in 1979. The devaluation was generally regarded as successful since manufactured exports doubled during 1978-79 and the non-oil trade balance improved. The reason for devaluation was not balance of payments troubles—reserves coverage was at four months' of imports. The aim was to help the relatively labor-intensive non-oil traded sectors.

The **second oil boom** raised Indonesia's mining sector revenues again. The government increased spending once more, but the absorption of windfall oil revenues was much below the level of expected oil income and foreign aid and part of revenues were saved. This differed from the approach during the first oil boom. Oil prices started to fall in 1981 and due to a rapidly growing trade imbalance, the current account turned into a large deficit. Capital inflows were insufficient to finance the high trade deficit and foreign exchange reserves started to fall. The authorities decided to devalue the currency again to stop private capital outflows in the short term and to improve the non-oil trade balance. In 1983, the domestic currency was devalued by around 50 percent, and for the second time in five years, relative prices of traded goods and non-traded goods changed sharply. **Fiscal policy was tightened and was supportive of the devaluation.** In mid-1983 more than $10 billion in capital intensive public projects, amounting to almost 12 percent of GDP, were cancelled or postponed. This sharp reduction in government spending allowed the government to

implement an expenditure-switching policy from industry to infrastructure and social sectors. In 1984, the authorities introduced a simplified tax code with a rudimentary form of VAT, which is easier to administer and monitor for the non-oil sector. Immediately following the devaluation, the authorities liberalized the financial system to create incentives for lending, increase competition and greater mobilization of domestic savings. This devaluation proved successful too—during 1983-85 non-oil and manufactured exports increased, non-oil imports fell, foreign exchange reserves strengthened and the overall government budget returned to balance.

Indonesia's experience with oil windfall management stands out as relatively successful compared to other oil exporting countries. Three key factors contributed to this success: oil was not the only source of export earnings and exports of other commodities were generating considerable income; the authorities did not rely on oil sector revenues alone and tried to diversify the economy—the country was a strong non-oil exporter during the periods of the oil booms; the Indonesian government adapted macroeconomic policies to changing external environment.

Sources: Rudiger Dornbusch, F. Leslie C. H. Helmers, "The Open Economy, Tools for Policymakers in Developing Countries," 1987; Alan Gelb and Associates, "Oil Windfalls - Blessing or Curse?" 1988.

Oil and Economic Development in Nigeria

Nigeria has an abundance of hydrocarbon resources. It is the 13th largest oil producer in the world, the third largest oil producer in Africa and the most prolific oil producer in Sub-Saharan Africa. Prior to 1960, agriculture was the dominant sector in the Nigerian economy and the country was a major producer of cocoa and palm products. Oil production in Nigeria started in 1958 and increased over time to reach the export of 2 million barrels of oil per day by 1972.

With the **first oil boom of 1972-78**, Nigeria's terms of trade increased three times and international reserves almost tenfold between 1973 and 1974. Oil revenues accounted for almost 85 percent of the country's total exports and around 60 percent of federal government revenues in 1973. At this stage, the government faced the question of how to use such vast unplanned revenues. The fiscal authorities ignored the risk of future reversal of the current favorable conditions and chose to spend these revenues by undertaking massive domestic investment projects. Public capital spending accelerated rapidly, absorbing more than the total increase in 1970-76 oil revenues, resulting in a large budget deficit, which was financed with the use of reserves accumulated in 1973-74 and monetary expansion. These policies resulted in inflation—prices increased by 22 percent and, with a mainly fixed exchange rate, the real exchange rate appreciated strongly.

The country was not successful in diversifying the economy out of oil, particularly as specific policies further negatively affected the once strong agriculture sector. Production of major agricultural export crops shrunk by half from 1964 to 1978, partly because the government created commodity boards to stabilize crop prices and taxed farmers by paying them substantially less than world prices. Nigeria became a net importer of agricultural products in 1975.

The government responded to the difficult economic situation by expenditure cuts in 1978 but did not address the issue of the overvalued real exchange rate. The **second oil boom** saved the government from undertaking further painful adjustments. Nigeria's terms of trade increased by 25 percent and 40 percent in 1979 and 1980 respectively, and the international reserves position strengthened significantly. However, the Nigerian government did not take into account the lessons of the past. In light of the increasing oil revenues, fiscal constraints were relaxed and expenditures rose by 65 percent in 1980, to resume the suspended construction projects and to undertake new ones. However, the second oil boom did not last long, oil export receipts halved between 1980 and 1982, and this expansionary fiscal policy resulted once again in large fiscal deficits by 1982. Foreign exchange reserves fell sharply and the real effective exchange rate appreciated by 125 percent compared to its 1976 level. Inflation reached 60 percent during 1980-1983. The government introduced restrictive quantitative controls and import quotas on goods and services which hurt the manufacturing sector. In addition, payments arrears on foreign debt were accumulated, adversely affecting Nigeria's credibility in international capital markets. At this point, the government approached creditors to prolong existing loans and to get new financing. By the end of 1983,

the Nigerian economy was in trouble again and in December 1983, a military coup took control of the government.

Nigeria failed to use its oil wealth for the benefit of its people during the boom years. Experience in Nigeria shows that the high level of expenditures during oil boom periods were difficult to reverse after price falls, thus resulting in widened fiscal deficits. Fiscal volatility adversely affected the economy through appreciating real exchange rates. The authorities spent the oil income mainly for domestic investment and consumption. Any savings of oil revenues was short-lived; revenues were saved only immediately following the surge in windfall income and were then subsequently spent quickly. The large public investment projects did not succeed because of constraints in the implementation process. Investments in the industry sector failed to generate the much needed non-oil exports and the country failed to diversify its economy during the windfall decade. The decision to adjust to shrinking oil revenues through trade restrictions rather than through devaluation had a ruinous impact on macroeconomic indicators. In addition, heavy and long dependence on oil revenues resulted in a narrowing of the non-oil tax base and inefficient tax administration, which played its negative role in the country's macroeconomic performance throughout the 1980s and 1990s, as oil prices fluctuated.

Sources: Rudiger Dornbusch, "Policymaking in the Open Economy, Concepts and Case Studies in Economic Performance," 1993; Alan Gelb and Associates, "Oil Windfalls - Blessing or Curse?" 1988; Mered, Michael, Chapter on Nigeria in "Fiscal Federalism in Theory and Practice", edited by Teresa Ter-Minassian, IMF, Washington, 1997; "Nigeria—Selected Issues and Statistical Appendix," IMF, SM/02/371.

Oil and Economic Development in Mexico

Mexico is the world's fifth-largest oil producer and its 10th-largest oil exporter. Mexico began to export oil in 1911, and its oil output expanded at an average annual rate of 6 percent between 1938 and 1971. Extensive oil discoveries in the 1970s increased Mexico's domestic output and export revenues.

Although the Mexican economy maintained a rapid growth rate during most of the 1970s, it was progressively undermined by the combination of fiscal mismanagement and an overvalued real exchange rate, resulting in the sharp deterioration of the investment climate. In the mid-1970s, the government planned large public sector investment programs in industry, agriculture and transportation. This expansionary fiscal policy together with expansionary monetary policy, the postponement of crucial tax reforms and a fixed exchange rate contributed to large balance of payments disequilibrium and intensified capital outflows. In 1976, the government devalued the peso by 45 percent. In the same year, Mexico agreed with the IMF on a stabilization program aimed at lowering inflation, building up reserves and achieving macroeconomic stability. Oil discoveries in the south of Mexico in 1978 and a sharp increase in the world price of oil in 1979 greatly affected the country's economic outlook. Private capital started to flow into the country, financing from the IMF was no longer needed and the reform program was abandoned.

The improved terms of trade in 1979-80 brought windfall oil revenues and allowed the government to continue implementing an expansionary fiscal policy. Moreover, the government borrowed abroad against future oil earnings to further boost expenditures. Public investment increased and reached 30 percent of GDP in 1981.This growth was associated with a substantial increase in imported capital and intermediate goods. However, oil revenues were not sufficient to finance the large increase in imports and external imbalances were financed by foreign borrowing. The budget deficit rose, the current account deficit widened and the real exchange rate was allowed to appreciate. Oil became the economy's most dynamic growth sector and the country's dependence on income from the export of oil increased. The share of oil in total exports rose from 15 percent in 1976 to 78 percent in 1983. Government tax revenues were now heavily dependent on international oil price movements. When oil prices fell in 1981, the government decided not to cut prices for Mexican oil for several months and the volume of oil exports fell sharply. In 1982, the budget deficit reached 15 percent of GDP. In the same year, commercial banks refused to roll over government loans. In August 1982, Mexico suspended its international debt payments after falling oil prices made it impossible for the government to repay foreign loans. Around $30 billion of capital fled the country. The debt crisis led to currency devaluations and hyperinflation.

Mexico's experience with oil revenue management is a good example of how the existence of abundant natural resources can create a false sense of security. Oil wealth is not a solution to all economic problems. Even windfall resources from oil during the skyrocketing oil price period could not sustain overly expansive public spending, and the country faced the painful need of adjustment later on. In fact, the discovery and exploitation of oil resources gave a false sense of security to the authorities and made them postpone the

needed correction of the real exchange rate, balancing of the budget and implementation of various structural reforms.

Source: Rudiger Dornbusch, F. Leslie C. H. Helmers, "The Open Economy, Tools for Policymakers in Developing Countries," 1987.

III. Azerbaijan—Monetization and Dollarization Trends

A. Introduction

59. Since the government of Azerbaijan embarked on a comprehensive stabilization and structural reform program in 1996, macroeconomic developments have been favorable. Real GDP growth has averaged over 10 percent per year during the last few years. In addition, the exchange rate has been fairly stable, and inflation has declined to low single digits, with Azerbaijan having the lowest cumulative inflation in the BRO (Baltics, Russia and other countries of the Former Soviet Union) since 1996.

60. Despite these impressive achievements, there has been only a very modest recovery in money demand in Azerbaijan, following a precipitous fall in the first half of the 1990s. There has actually been a decline in demand for manat money balances relative to GDP since the start of the stabilization program in 1996. However, there has been a moderate increase in total money demand (manat money plus foreign currency deposits) relative to GDP during this period, as dollarization has been on the rise. At end-2002 foreign currency deposits were nearly 50 percent of broad money balances, double their level in the mid-1990's and the highest level of dollarization in the BRO.

61. This chapter seeks to explain this modest recovery in money demand. It reviews trends in monetization and financial deepening in Azerbaijan, and compares those trends with the rest of the BRO. Evidence provided in this chapter indicates a strong positive correlation between the demand for real money balances in the BRO and progress in structural reforms—particularly in enterprise, financial sector and judicial reforms—and that the limited extent of these reforms in Azerbaijan goes a long way toward explaining the slow pace of recovery of money demand.

62. The chapter is organized as follows. Section III-B provides a summary of economic theory and empirical evidence on money demand, to put in perspective the developments in money demand in the BRO during the transition period. Section III-C summarizes Azerbaijan's trends in monetization. Section III-D compares monetization trends in Azerbaijan with those in other BRO countries. Section III-E reviews the impact of structural reforms on the pace of remonetization in the BRO in general and in Azerbaijan in particular. Section III-F summarizes the benefits and costs of the remonetization process. Section III-G concludes.

B. Economic Theory on Money Demand and Empirical Evidence

63. The demand for money arises primarily from its usefulness in making transactions, and because it provides a hedge against the risk inherent in holding other assets. Theories on the demand for money are classified into two different but compatible groups. The first group—the transaction theories of money demand—stresses the role of money as a medium of exchange, noting that real money balances held by the public involve a trade-off between the convenience provided by money in conducting transactions and the interest income

foregone as a cost of this convenience. The second group of theories—the portfolio theories of money demand—stresses the role of money as a store of value, claiming that the demand for money depends on the difference in risk and return between money and the other assets that people can hold instead of money to store their wealth.

64. Combined, these economic theories predict that real money balances are an increasing function of income, and a decreasing function of interest rates and the expected rate of inflation. Empirical studies have found broad support for these predictions. An increase in GDP, for example, is associated *ceteris paribus* with an increase in real money balances, whereas an increase in the interest rate on substitutes for money or in the expected rate of inflation is associated with a decline in real money balances.

65. Despite the broad agreement on the direction of the short run relationship between money and the endogenous macroeconomic variables, most empirical studies have failed to find a stable long-run relationship between money and these variables. Over time, there are often abrupt and unpredictable shifts in the demand for money. It is argued that institutional change—including regulatory changes in the banking sector and the emergence of new instruments that are close substitutes for money—is the main factor contributing to these shifts in money demand (see Box III-1 for a summary of historical money demand trends).

66. In transition economies, these shifts in money demand tend to be more frequent and larger than in other countries of similar economic and institutional development. This is due to several factors, including the rapid institutional change ongoing in these economies, the adjustment to the end of the high inflation that was experienced early in the transition process and, in some cases, banking sector crises. In many transition economies the remonetization has taken place largely through an increase in foreign currency deposits with banks, contributing to an increase in dollarization. As suggested by Havrylyshyn and Beddies (2003), asset substitution appears to be a key factor driving continued dollarization. By opening the way to holding foreign currency-denominated assets, dollarization allows investors to diversity their portfolios (see Appendix III-1 for a more detailed discussion on causes of dollarization and its policy implications).

Box III-1. Historical Trends of Money Velocity 1/

The long-run behavior of the income velocity of money, defined as the ratio of GDP over money (the sum of currency in circulation, demand and time deposits), has exhibited a U-shaped pattern since the late-19th century in most industrial countries. Velocity fell, for example, in Canada and the United States through the early-1940s, and it has displayed an upward trend since then in both countries. Similarly, in the United Kingdom velocity fell from around 1910 onward, with a turnaround occurring in the mid-1940s.

The declining trend in velocity prior to the 1940s reflected a growing use of money for settling transactions, rather than barter and payments in kind. The reversal in money velocity starting from the mid-1940s was largely due to the increased sophistication of the financial systems in the industrial countries. The upward trend in money velocity reflected the emergence of a large number of close substitutes for money—such as bonds, common stocks, and other financial assets, that reduced the demand for money as an asset—and also the development of various methods of economizing on money balances, such as the use of credit cards, the transfer of funds electronically, and modern cash management techniques that reduced the transactions demand for money. While both these sets of institutional variables operate at the same time, the monetization effects typically dominate first, causing velocity to decline. Later, the financial sophistication effects dominate, causing velocity to increase.

1/ This text box summarizes the discussions on the historical trends in money velocity in "The Long-Run Behavior of the Velocity of Circulation: The International Evidence", Bordo, M.E. and Jonung, Lars, 1987.

67. Another important empirical finding on money demand is that demonetization and remonetization appear to be asymmetric processes: higher inflation leads almost immediately to lower money demand, but lower inflation does not automatically raise money demand. Gosh (1996), for example, finds that the inflation elasticity of real demand for money is high during periods of demonetization, but barely above zero (and not statistically significant) during periods of remonetization. When faced with high inflation, households and enterprises find ways to conserve on money holdings. In doing so, they discover new "technologies" for operating with lower money holdings and, having invested the fixed costs involved in developing these technologies, are reluctant to give them up.

C. Monetization Trends in Azerbaijan

68. Monetary developments in Azerbaijan have gone through two distinct phases since independence in 1991. During the first phase, lasting through late 1995/early 1996, and which involved excessive money printing to cover large fiscal deficits, there was a precipitous fall in real money balances. During the second period, the sharp demonetization that took place in the first half of the 1990s was halted. However, although there has been some modest decline in M3[4] velocity since end-1996, interrupted by a brief reversal in the aftermath of the Russian

[4] In this chapter, M2 refers to currency in circulation plus all manat-denominated deposits in commercial banks. M3 refers to M2 plus foreign currency deposits in commercial banks.

crisis of mid-1998, the recovery in money demand that has been seen in other BRO countries in recent years has not yet materialized in Azerbaijan.

First phase: Demonetization

69. During the first half of the 1990s, faced with revenue shortfalls and a costly war in Nagorno-Karabakh, the authorities resorted to printing money to finance the burgeoning fiscal deficit. Reserve money grew sharply during this period, resulting in inflation rates of over 1,000 percent from early 1993 through mid-1995. Seignorage revenue[5] and the inflation tax[6] peaked in 1993, at about 25 percent and 27 percent of GDP, respectively (Table III-1). Seignorage declined to about 15 of GDP in 1994, and to about 4 percent of GDP in 1995, as the authorities gradually reduced the rate of reserve money growth. The inflation tax continued to exceed seignorage in 1994, amounting to about 22 percent of GDP, as demand for real money balances continued to decline in the face of continued high inflation, before falling to less than 3 percent of GDP in 1995, following a sharp reduction in the rate of increase of money supply during the second half of that year.

Second phase: Slow Remonetization

70. In early 1996 the authorities embarked on a comprehensive stabilization and structural reform program. By that time M3 had declined to less than 10 percent of GDP (about 12 percent of non-oil GDP), compared to over 20 percent of GDP at end-1994. To anchor inflationary expectations, given the very strong link between depreciation and inflation at the start of the stabilization program, the central bank targeted a strong manat, allowing for an appreciation of the nominal exchange rate of manat vis-à-vis the US dollar, with the rate of appreciation gradually declining as inflation fell. The turnaround in macroeconomic developments following the 1996 program was swift. Real GDP rebounded strongly, growing by about 10 percent per year since 1998, and 12-month CPI inflation quickly fell to low single digits. The restoration of political and macroeconomic stability, together with initial progress in banking sector and other structural reforms, soon halted the demonetization process that had prevailed during the first half of the 1990s. The decline in real money balances bottomed out around mid-1997, with both M2 and M3 velocity declining moderately through end-1998 (Figure III-1).

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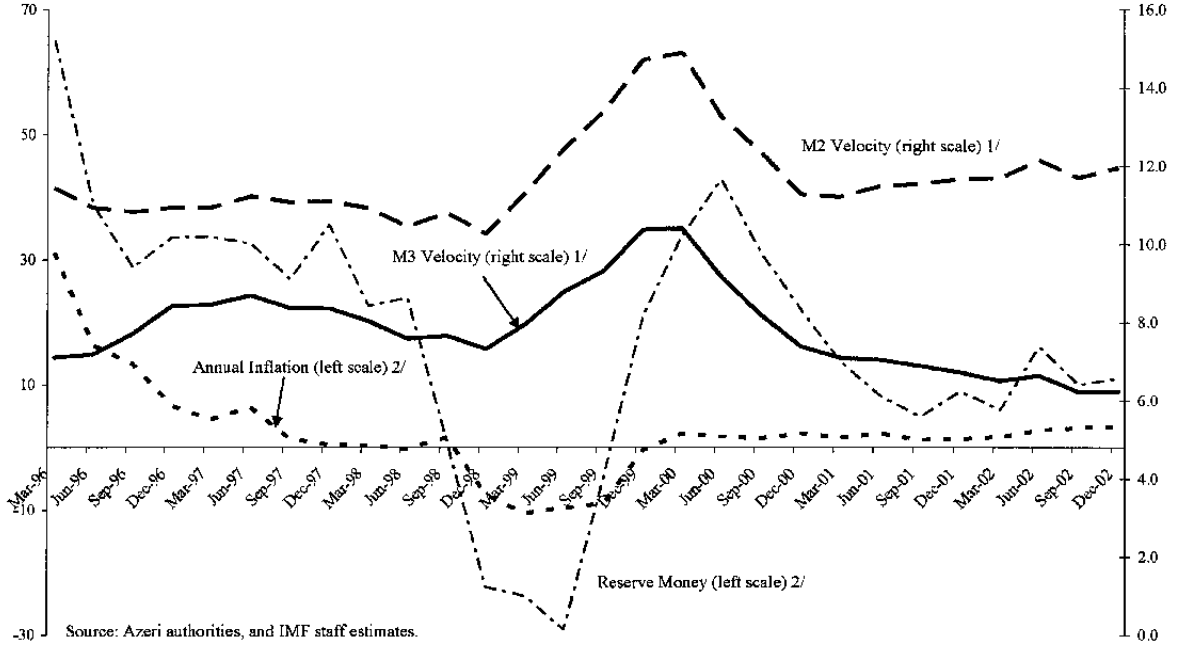
[5] Defined as the increase in nominal reserve money balances during the period, i.e., $RM_t - RM_{t-1}$, where RM stands for nominal reserve money.

[6] Defined as the loss in value of the public's cash holdings due to inflation, calculated as follows: $IT_t = (\pi_t / (1+\pi_t)) * RM_{t-1}$, where IT_t is the nominal inflation tax at period t; π_t is the inflation rate during period t; and RM_{t-1} is reserve money stock in the previous period.

Figure III-1. Azerbaijan: Money, Inflation and Velocity Trends



Source: Azeri authorities, and IMF staff estimates.

1/ Ratio. M2 velocity defined as the ratio of non-oil annualized GDP over annual average manat broad money. M3 velocity defined as the ratio of non-oil annualized GDP over annual average broad money (manat broad money plus foreign currency deposits).
2/ 12-month growth rates.

71. This initial progress in remonetization was short-lived, however, as demand for money was adversely affected by the Russian crisis of mid-1998. Faced with a sharp loss of confidence in the domestic currency and in domestic-currency-denominated assets, the authorities reversed their previous policy of nominal appreciation. To maintain macroeconomic stability, however, they allowed for only a modest depreciation of the exchange rate. Except for the Baltics, which have continued to operate formal fixed exchange regimes since the mid-1990s, Azerbaijan mounted one of the strongest defenses of the exchange rate in the BRO in the face of the Russian crisis. Between June 1998 and July 1999 there was a 30 percent decline in reserve money, and only a moderate depreciation of the manat/US$ exchange rate.[7] There was a sharp decline in banking sector deposits as well, in both domestic and foreign currencies.

72. With improved economic conditions across the region, as well as a one-time 7 percent depreciation of the manat in July 1999, the adverse effects stemming from the Russian crisis

[7] There was a depreciation of about 3 percent in the manat/US$ exchange rate from June 1998 through July 1999, compared to an appreciation of about 8 percent and 5 percent, respectively, in 1996 and 1997. Prices fell between October 1998 and July 1999, with the 12-month CPI inflation at -9.5 percent in July 1999.

had waned by mid-1999. Against a background of low inflation and a stable exchange rate, demand for money in Azerbaijan started to recover in early 2000. By June 2000 nominal reserve money had increased to the pre-Russian crisis level, and continued to increase through end-2002. The decline in foreign currency deposits also bottomed out in mid-1999, and at end-2002 foreign currency deposits were triple their level of June 1999. The recovery in domestic currency deposits, however, has been very slow, reaching the pre-Russian crisis level of June 1998 only in June 2002.

73. In summary, while there has been a modest increase in the ratio of M3 to GDP during the period 1996-2002 (about 30 percent), M2 balances declined relative to GDP during this period, despite a relatively stable exchange rate and low inflation throughout this time. The modest financial deepening took place almost exclusively through an increase in foreign currency deposits (FCD). While high and persistent dollarization is a distinctive feature of the remonetization process of transition economies, only a few BRO countries have experienced similar increases in dollarization following sustained disinflation (Armenia, Georgia, Kazakhstan, and Tajikistan). As discussed in Appendix I, the observed persistence of dollarization in the BRO may be due to a combination of factors, including: (i) inertial or hysteresis effects, i.e., many people have learned to transact in foreign currency, and choose to continue to do so in view of the costs involved in changing their behavior; (ii) a low level of development of domestic financial markets in the region, and (iii) it is possible that part of the measured increase in dollarization reflects a switch of cash dollar holdings for dollar deposits, as confidence in banks improves.

D. Monetization Trends in Azerbaijan Compared with Others in the BRO

74. Macroeconomic developments in the BRO following the dissolution of the former Soviet Union were similar to those in Azerbaijan. High fiscal deficits in the early transition stage were largely financed by printing money, contributing to high inflation, sharply declining real money balances, and increasing dollarization in virtually all BRO countries. As can be seen from Tables III-2 and III-3, the inflation tax remained significant in most BRO countries through 1995, due to excessive money financing of fiscal deficits. This led to a rapid demonetization process across the region, similar in magnitude to the developments in Azerbaijan described in Section III-C, with broad money balances relative to GDP dropping by the mid-1990s to only a small fraction of the levels prevailing in these countries at the start of the transition process. During the second half of the 1990s the stabilization programs introduced in most BRO countries started to take hold. With the notable exception of Belarus and Uzbekistan, inflation was gradually brought under control, and by end-2002 single digit annual inflation rates prevailed throughout most of the region.[8]

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[8] While the 12-month inflation at end-2002 amounted to about 15 percent in both Russia and Tajikistan, there has been a trend decline in inflation in both countries, following the sharp spike in inflation in the wake of the Russian crisis of mid-1998.

75. These improvements in macroeconomic conditions contributed to increased confidence in the individual countries' domestic currencies and banking systems. As can be seen from Figures III-2 and III-3, there has been a trend decline in M2 velocity and M3 velocity in most BRO countries since 1996, although in some cases there was a temporary reversal in the aftermath of the Russian crisis.

76. The pace of remonetization, however, has varied greatly across the BRO. As noted earlier, Azerbaijan's progress in remonetization has been relatively modest, with the ratio of M3 to GDP improving by about 30 percent since 1996, following a sharp decline in the first half of the 1990s. During this period, the pace of remonetization in most BRO countries was significantly faster, with only Uzbekistan, Tajikistan, and the Kyrgyz Republic having lower monetization growth rates (Uzbekistan has actually had an increase in M3 velocity during this period). Excluding Azerbaijan, monetization growth rates ranged from about 150 percent in Ukraine to about 40 percent in Latvia and Moldova.

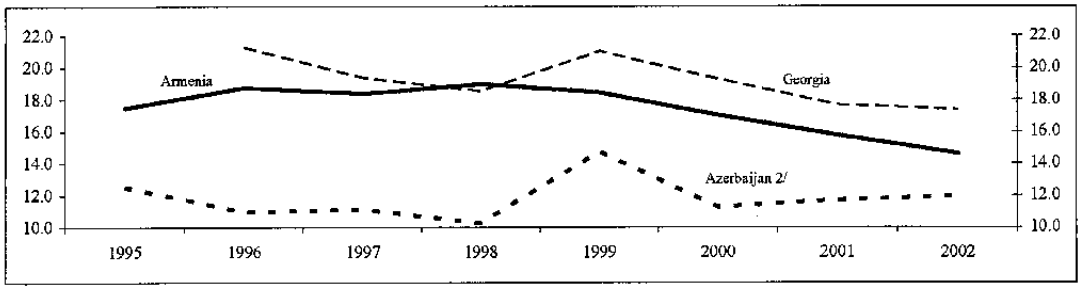
77. The trends in the M2/GDP ratio in the BRO are broadly similar to the M3/GDP trends, with the notable exception of Azerbaijan and Kazakhstan. In Azerbaijan, as noted earlier, there has been a decline in the M2/GDP ratio since 1996, compared to a modest increase in the M3/GDP ratio. In Kazakhstan, the M2/GDP increased by much less than the M3/GDP ratio during the period 1996-2002 (30 percent increase in the former compared to 100 percent increase in the latter), indicating a sharp increase in dollarization.

78. Two observations are in order. First, despite the rapid remonetization observed in most BRO countries over the last few years, the level of monetization remains, except for the Baltics, far below the level prevailing in the transition economies of Eastern Europe. It thus seems that the velocity of money should continue to decline for some time in the BRO, provided that macroeconomic stability is maintained and structural reforms continue, before it reverses direction and starts to increase, echoing the path observed in the industrial countries.

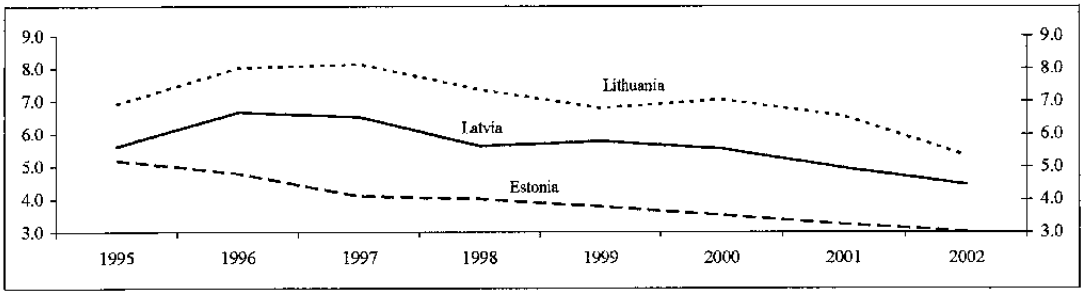
79. Second, the monetization trends in Azerbaijan compared to the other BRO countries are puzzling. Why has there been virtually no remonetization in Azerbaijan, despite it having the lowest cumulative inflation since 1996, as well as one of the fastest real GDP growth rates in the region? After all, as indicated in Section III-B above, empirical evidence suggests that there is an inverse relationship between inflation and the demand for real money balances. The answer seems to be related to Azerbaijan's relatively slow progress in structural reforms.

Figure III-2. BRO Countries: M2 Velocity Trends, 1995-2002

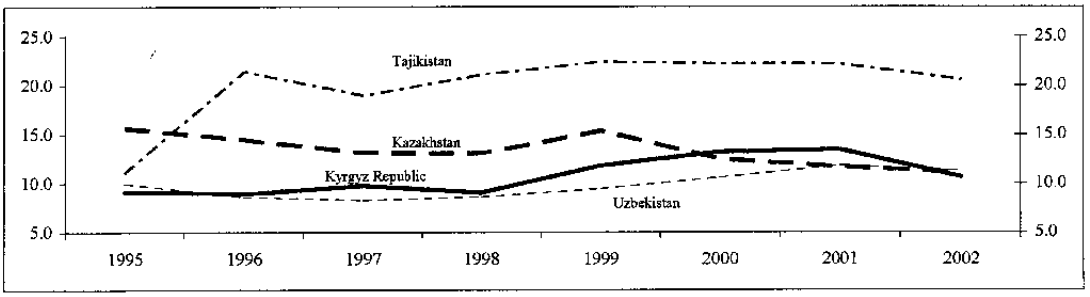
The Caucasus



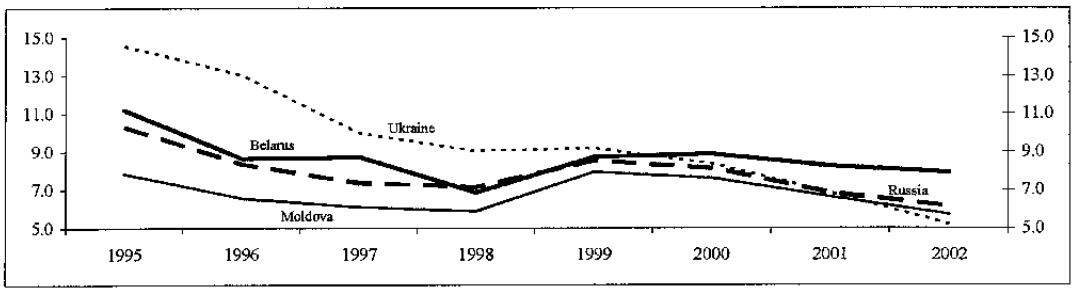
The Baltics



Central Asia



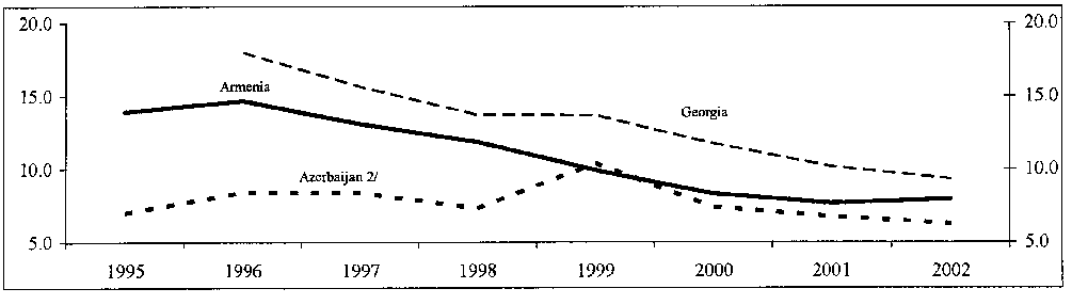
Other BRO



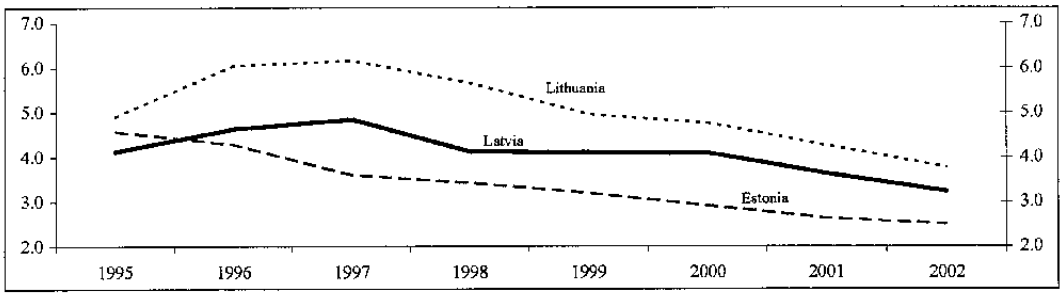
Source: EU2 Database.
1/ M2 velocity is defined as the ratio of nominal GDP over the average stock of manat broad money (excluding foreign currency deposits).
2/ For Azerbaijan, M2 velocity is the ratio of non-oil GDP over the average stock of manat broad money.

Figure III-3. BRO Countries: The M3 Velocity Trends, 1995-2002 1/

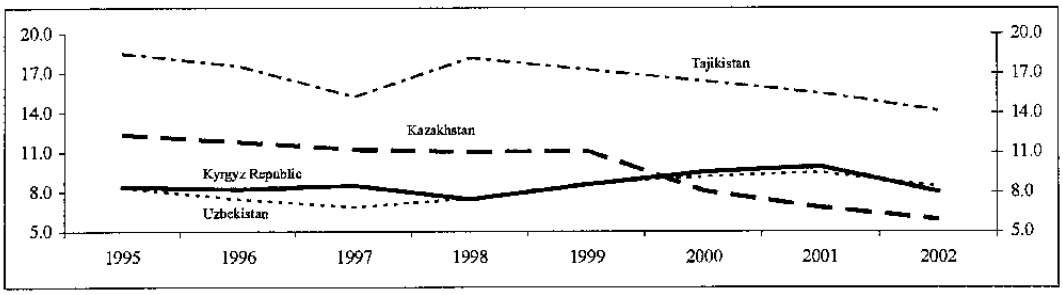
The Caucasus



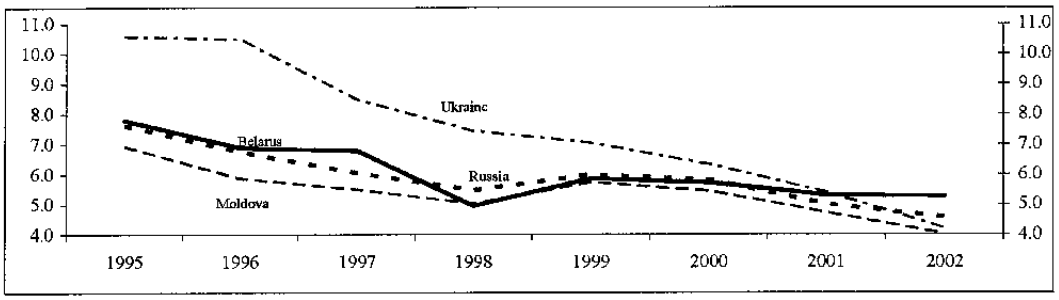
The Baltics



Central Asia



Other BRO

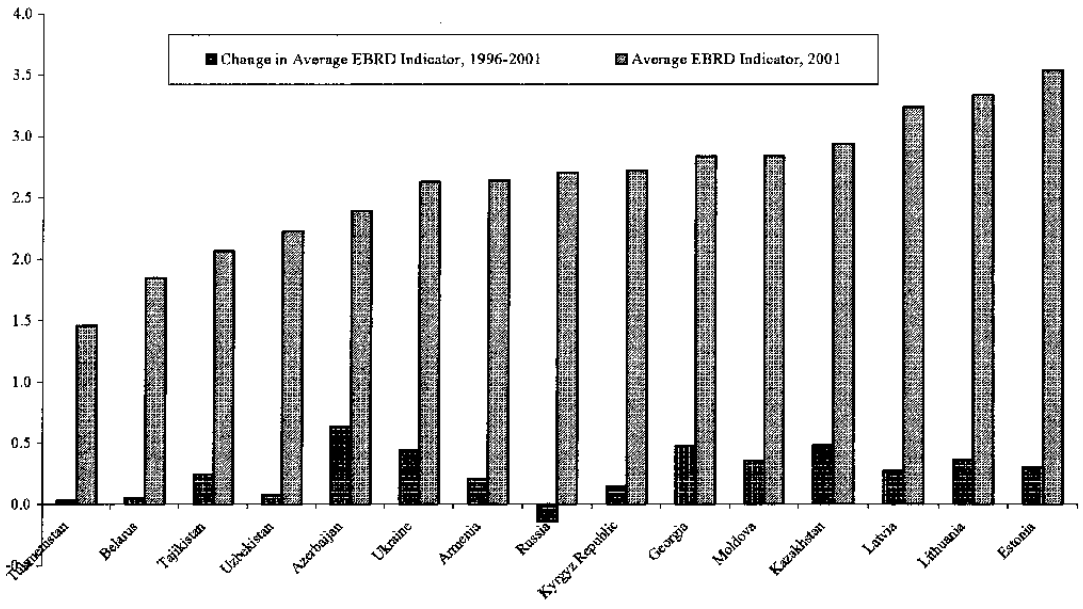


Source: EU2 Database.
1/ M3 velocity is defined as the ratio of nominal GDP over the average stock of broad money (including foreign currency deposits).
2/ For Azerbaijan, M3 velocity is the ratio of non-oil GDP over the average stock of broad money.

E. Structural Reforms and their Impact on Monetization Trends

80. Azerbaijan has made significant progress in structural reforms since 1996, particularly in the areas of price liberalization, small-scale privatization, banking sector restructuring, and foreign exchange and trade reforms, closing the gap with the front-runners in the BRO. A review of transition indicators compiled by the EBRD shows that Azerbaijan had the highest improvement in the average index of reforms between 1996 and 2001 (Figure III-4). At the same time, however, Azerbaijan's EBRD transition indicators for "second generation" reforms remain among the lowest in the BRO, particularly in the area of large-scale privatization, non-bank financial sector restructuring, and enterprise and judicial reforms (Table III-4).

Figure III-4. BRO Countries: Progress in Structural Reforms, 1996-2001



Source: EBRD, Transition Report, 2001.

81. Anecdotal evidence from firms and banks operating in Azerbaijan confirms that there has indeed been slow progress in these reforms. While there has been a recent acceleration in banking sector reforms, progress in enterprise and judicial system reforms remains slow, hampering the process of remonetization. Banks complain, for example, that the protection provided by the courts remains weak, significantly increasing their cost of doing business. In addition, assets that can be pledged as collateral are effectively limited to cars, flats, and securities, as there is no functioning registry for other assets (such as fixed assets of enterprises). Moreover, competition in the banking sector is hindered by the dominance of the system by the two state-owned banks (International Bank of Azerbaijan and BUS Bank), which have an effective monopoly on government banking services. Large-scale privatization is also moving slowly, and the reform of state enterprises is lagging, as evidenced by high inter-enterprise arrears.

82. Figures III-5 and III-6 plot the relationship between monetization trends in the BRO and the EBRD transition indicators on, respectively, banking sector restructuring and enterprise reform. There appears to be a relatively strong positive relationship between progress in structural reforms captured by these indicators and the pace of remonetization in the region. The direction and strength of the relationships summarized in Figure III-5 and Figure III-6 are only suggestive, however, as no control is made for the potential impact on monetization of other factors, such as the ones mentioned in Section III-B above.

83. For this reason, a panel regression with country-specific effects was estimated, pooling together data for 13 BRO countries for the period 1996-2001, using the following specification:

$$\Delta\left(\frac{M_{it}}{CPI_t}\right) = \alpha_1 * \Delta(GDP_t) + \alpha_2 * \Delta(CPI_t) + \alpha_3 * RUS + \alpha_4 * State + \alpha_5 * Structural_t + \varepsilon_t$$

where:

- Δ: indicates annual percentage change;

- M_{it}: are nominal broad money balances at year end (M_{2t} for manat money balances and M_{3t} for total broad money balances, i.e. manat money plus foreign currency deposits);

- CPI_t: is the consumer price index at year end;

- GDP_t: is nominal annual GDP; and

- *RUS:* is a dummy variable, which is equal to 1 in 1998 and 0 in all other years for all countries included in the panel, designed to capture the effect of the Russian crisis;

- *State*: is a dummy variable, which is equal to 1 for Azerbaijan and Uzbekistan and 0 for all other countries included in the panel, as discussed below;

- *Structural*: is an index of structural reforms as compiled by EBRD and reported in the EBRD Annual Transition Reports (the index of banking sector reforms and the average index of structural reforms were tested in this panel data analysis).[9]

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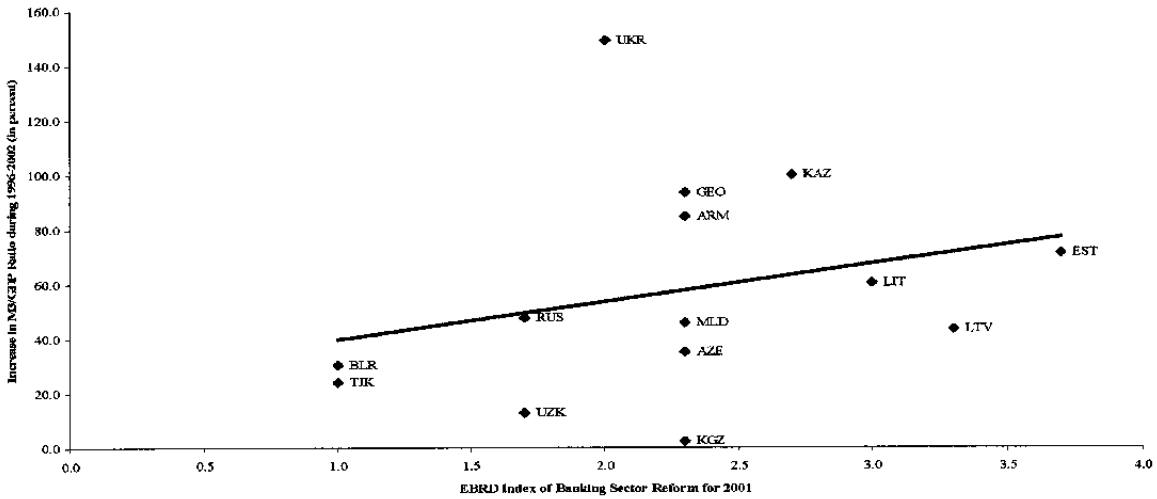
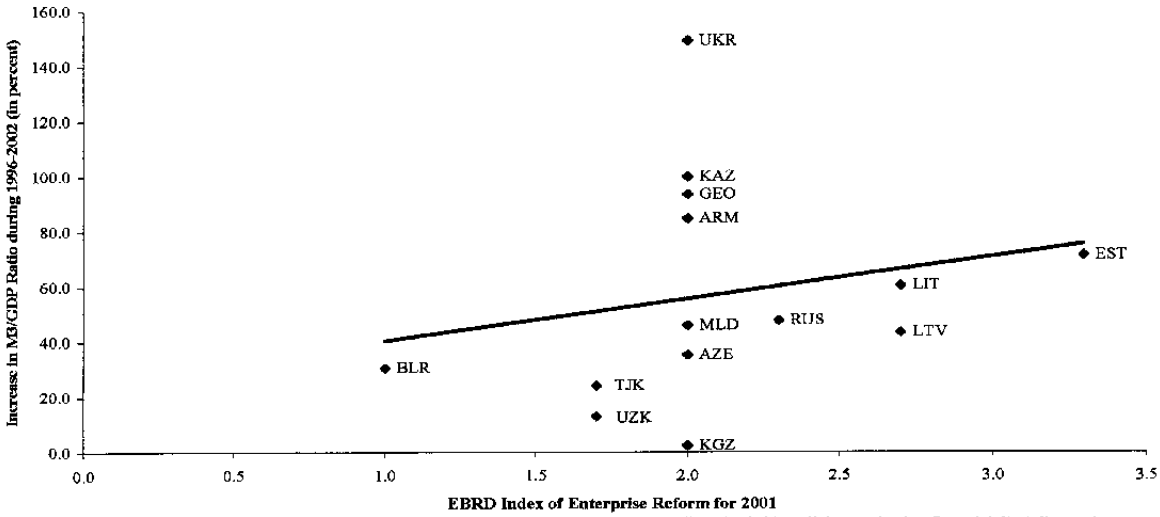
[9] The level of the EBRD indices, rather than their change, was used in this analysis. The reason is that countries which have experienced the highest improvement in these indices since 1996 are those that have been catching up with the front-runners, starting from a very low base. Thus there is a negative correlation between the level of reforms and the change in the reform index, and this would have distorted the coefficient on the change in reforms.

Figure III-5. BRO Countries: Relationship between Banking Sector Reform and Remonetization



Note: EBRD index on banking reform and interest rate liberalization indicates -- 1 - Little progress beyond establishment of a two-tier system; 2 - significant liberalization of interest rate and credit allocation; limited use of directed credit or interest rate ceilings; 3 - Substantial progress in establishment of bank solvency and of a framework for prudential supervision and regulation; full interest rate liberalization with little preferential access to cheap refinancing; significant lending to private enterprises and significant presence of private banks; 4 - significant improvement of banking laws and regulations toward BIS standards; well-functioning banking competition and effective prudential supervision; significant term lending to private enterprises; substantial financial deepening.

Figure III-6. BRO Countries: Relationship between Enterprise Reform and Remonetization



Note: EBRD Index of Enterprise reform indicates – 1 - Soft budget constraints (lax credit and subsidy policies weakening financial discipline at the enterprise level) few other reforms to promote corporate governance; 2 - Moderately tight credit and subsidy policy but weak enforcement of bankruptcy legislation and little action taken to strengthen competition and corporate governance; 3 - Significant and sustained actions to harden budget constraints and to promote corporate governance effectively (e.g. privatization combined with tight credit and subsidy policies and/or enforcement of bankruptcy legislation); 4 - Substantial improvement in corporate governance, for example, an account of an active corporate control market; significant new investment at the enterprise level.

84. The results of the regressions are summarized in Table III-5.[10] Consistent with the empirical literature, income appears to be positively correlated, and inflation negatively correlated, with the demand for both real M2 and M3. Both relationships are statistically significant at the 5 percent level. In addition, the dummy variable on the Russian crisis is significant at the 5 percent level in all tests.

85. The strength of the relationships between real demand for money and structural reforms is mixed. The coefficients of both the EBRD index of banking reform and the average EBRD index of structural reforms in the M3 real money demand equations have the expected sign and are significant at the 5 percent level. In the M2 equations, however, while these coefficients do have the expected sign, they are not statistically significant.

86. State ownership in the banking sector appears to be negatively correlated with the demand for real money balances. In the absence of reliable time series of state ownership in the domestic banking sectors of all countries included in this panel analysis, a dummy variable was included in the regression analysis, taking values of one for Azerbaijan and Uzbekistan, and zero for all other countries. In these two countries, the asset share of state-owned banks is currently over 60 percent, and has been even higher during the 1996-2001 period. In the rest of the countries, the asset share of state owned banks ranges from less than 10 percent in most of them to nearly 40 percent in Russia.[11] The coefficient of this dummy variable has a negative sign in all four tests reported in Table III-5, is large in magnitude, and is significant at the 10 percent level in 3 out of 4 regressions, suggesting that the control of the banking sector by state-owned banks has a strong negative effect on remonetization and financial deepening.

87. Taken together, the evidence provided by Figures III-5 and III-6, as well as the results of the panel regressions summarized in Table III-5, suggest that Azerbaijan's slow progress in structural reforms, and in banking sector restructuring in particular, is a key factor behind the slow growth in real money demand in Azerbaijan.

F. Is Fast Remonetization Necessarily a Good Thing?

88. Increasing monetization is, among other things, an indicator of improving confidence in macroeconomic policies and management, as well as in the banking sector. In addition, by providing banks with more resources for lending, remonetization translates into increased financial deepening, an important ingredient for sustainable economic growth.

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[10] A fixed effects specification was chosen after the Wald test on the appropriateness of linear restrictions suggested that it is superior to a simple OLS pooled test.

[11] In Russia this corresponds to 1999, as information for later years is not in the 2002 EBRD Transition Report. In Lithuania, state-owned banks also accounted for nearly 40 percent of total banking sector assets in 2000, but this ratio had declined to about 5 percent at end-2001.

89. Except for Estonia and Latvia, the stock of banking sector credit to the economy in the BRO, as a ratio to GDP, is significantly below that in other Eastern European countries. As of end-2002, the credit/GDP ratio varied from as low as 4.2 percent in the Kyrgyz Republic to as high as 30 percent in Estonia and Latvia (Table III-6). The comparable ratios at end-2002 were about 30 percent in Poland and over 40 percent in Hungary. The bank credit to GDP ratios are much higher in the industrial countries, amounting to, for example, about 60 percent in the United States and 150 percent in the United Kingdom.

90. Given the relatively low stock of credit to the economy in virtually all BRO countries, it would seem that rapid remonetization would be desirable. However, the low credit/GDP ratios across the BRO are, in part, an indicator of fragile and relatively unsophisticated banking systems, and of judicial systems that provide little protection to banks against delinquent borrowers. In addition, existing accounting systems in most BRO countries are incompatible with international standards, undermining the ability of banks to properly assess credit risks. A rapid expansion of credit under these circumstances could overwhelm such weak banking systems, and over time could lead to a deterioration in the quality of the banking system's loan portfolio.

91. Consistent with its modest remonetization, credit growth in Azerbaijan has also been moderate, against a background of low inflation and a relatively stable exchange rate. During 2001-02, credit growth averaged about 14 per year, or slightly higher than nominal GDP growth. Except for Armenia and the Kyrgyz Republic, real credit growth in the BRO over the last few years has been higher than in Azerbaijan. The fastest real credit growth rates have been registered in Latvia, Kazakhstan and Ukraine, in all of which the credit to GDP ratio effectively doubled during the period 2000-02.

G. Conclusions

92. There has been only a modest financial deepening in Azerbaijan since the start of the stabilization and structural reform program of early-1996, despite a stable macroeconomic environment and strong economic growth. The demand for manat money balances relative to GDP has actually declined since 1996. In addition, the level of dollarization remains the highest among BRO countries.

93. The evidence presented in this chapter suggests that structural reforms in general, and bank restructuring in particular, have had a strong positive influence on the pace of remonetization in the BRO. Large state ownership in the banking sector is associated with lower growth rates in real money balances, as is slow progress in bank restructuring and in other key structural reforms. To accelerate the remonetization process, the Azerbaijan authorities should accelerate structural reforms, particularly in large-scale privatization and the judicial systems; complete the privatization of IBA and BUS Bank; introduce measures to foster increased competition in the banking sector, including by tendering for government banking services; and establish an efficient registry system for fixed assets of firms so as to broaden the scope of assets that can be pledged as collateral for bank loans.

94. In light of international experience with money demand, there is ample scope for continued remonetization in Azerbaijan. However, while rapid remonetization is an indicator of improved confidence in economic policies and the banking sector, should a sharp acceleration of financial intermediation take place in Azerbaijan, the authorities should ensure that credit policies are not relaxed and that banking and other structural reforms continue. This will help avoid future banking crisis, which could undermine confidence in the authorities' economic reforms. In addition, the authorities should improve the treasury bill market and accelerate other reforms that would contribute to an increase in demand for manat-denominated assets, while maintaining the impressive gains in macroeconomic stabilization.

Dollarization: Causes and Policy Implications

As noted in Section III-C, a distinctive characteristic of remonetization in Azerbaijan is that it has taken place largely through an increase in foreign currency deposits (FCD), contributing to a sharp increase in measured dollarization.[12] The literature highlights two main reasons for the observed persistence of dollarization in transition and emerging economies.

The first reason—hysteresis—has to do with the fact that during periods of hyperinflation, as well as extended high inflation, economic agents reduce their holding of money balances denominated in domestic currency, to avoid erosion of their asset holdings. This change of behavior is a slow process that involves institutional changes, and is not reversed quickly when inflation is brought under control. This is similar to the explanation of the asymmetric response of money demand to changes in inflation.

The second reason—asset substitution—is related to the relatively low level of development of domestic financial markets. To the extent that there are few attractive assets available in local currency, investors will have little choice but to invest in assets denominated in foreign currency. Dollarization therefore, as argued by Havrylyshyn and Beddies (2003), opens the way to diversifying portfolios and reducing risks.

There is another possible explanation, especially for countries that have experienced sharp increases in the FCD/M3 ratio against a background of a stable macroeconomic environment, such as Azerbaijan and Kazakhstan. In these cases, an increase in the FCD/M3 ratio could reflect improved confidence in the banking sector, and a conversion of cash dollar holdings into FCD in the banking sector, with no change in dollarization.

As can be seen from Figure III-7, progress in financial market development in the BRO, as measured by the EBRD transition indicator on securities markets and non-bank financial institutions reforms, is negatively correlated with the level of dollarization, seeming to provide support for the asset substitution argument mentioned above. In the case of Azerbaijan, for example, there are limited opportunities to invest in domestic currency-denominated instruments. The stock market is virtually inexistent, and the supply of treasury bills is highly volatile and limited to short-term maturities (3- and 6-months only).

While dollarization is measured as the ratio of FCD/M3, the extent of currency substitution appears to also be very high in Azerbaijan. Transactions of relatively high value, such as, for example, sales of cars and apartments, reportedly continue to be settled primarily in foreign currency. The fact that the banknote with the highest denomination in Azerbaijan is the manat 50,000 note, equivalent to about US$10, is an important factor in reducing the attractiveness of manat notes, thereby contributing to the reportedly high level of currency substitution.

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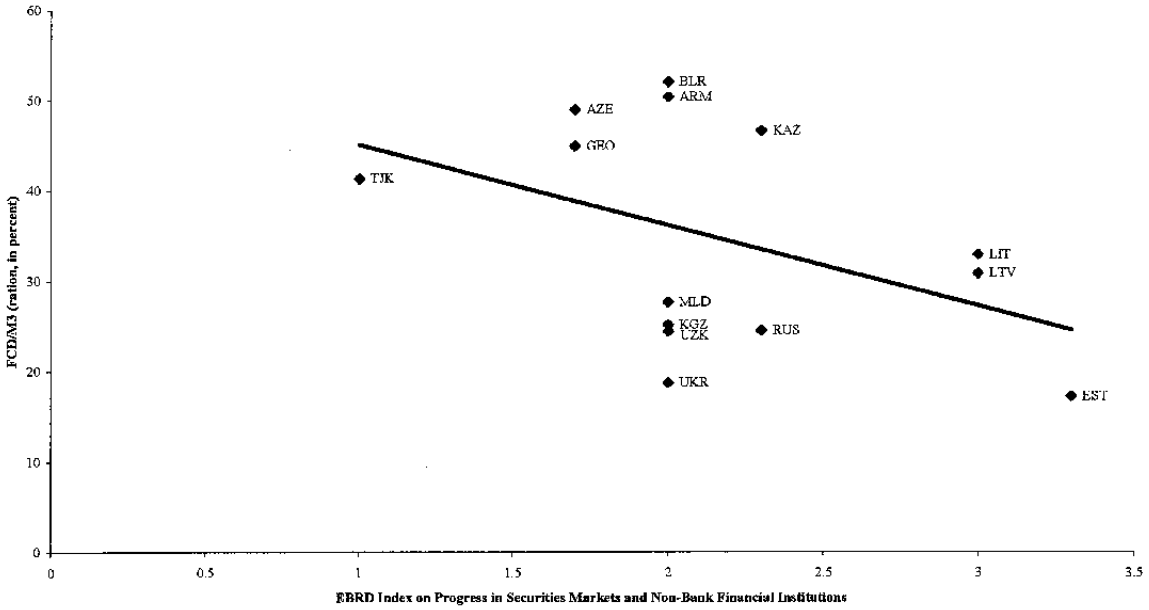
[12] The FCD/M3 ratio is used here as an indicator for dollarization.

Although dollarization allows domestic economic agents to better diversify their portfolio, there are potential costs from dollarization. A high dollarization ratio complicates, for example, the choice of an appropriate intermediate target for monetary policy. More importantly, it makes the economy vulnerable to exchange rate volatility, undermining the authorities' ability to effectively respond to financial crises. With foreign currency-denominated loans in Azerbaijan amounting to about 75 percent of total banking sector loans at end-2002, a sharp exchange rate depreciation is likely to have a significant adverse impact on banks' financial position, as most of these foreign currency-denominated loans are to borrowers whose income is denominated in domestic currency.[13] A sharp depreciation therefore, unless accompanied by an immediate and complete pass-through into domestic prices, will cause difficulties for firms trying to service these loans, and lead eventually to increased loan defaults.

Figure III-7. BRO Countries: Dollarization and Development of Domestic Financial Markets



Note: The EBRD Index indicates -- 1 - little progress; 2 - formation of securities exchanges, market-makers and brokers; some trading in government paper and/or securities; rudimentary legal and regulatory framework for the issuance and trading of securities; 3 - substantial issuance of securities by private enterprises; establishment of independent share registries; secure clearance and settlement procedures and some protection of minority shareholders; emergence of non-bank financial institutions (e.g. investment funds, private insurance and pension funds, leasing companies) and associated regulatory framework; and 4- securities laws and regulations approaching IOSCO standards; substantial market liquidity and capitalization; well-functioning non-bank financial institutions and effective regulation.

Given that there are potential costs to high dollarization, the question is whether the authorities should introduce direct measures aimed at reducing dollarization. The two most

[13] With Azerbaijan's oil sector being financed almost exclusively from abroad, its non-oil exports in 2002 amounted to about US$ 250 million, compared to an outstanding stock of bank loans denominated in foreign currency equivalent to US$320 million.

common direct measures are higher required reserve rates for foreign currency deposits, and forced conversions of foreign currency deposits into domestic currency deposits. International experience indicates that these measures are ineffective, and have been counterproductive in many cases. Bolivia, Peru, Uruguay and Turkey, for example, have used higher reserve requirements for foreign currency deposits than for domestic deposits, but none of these countries has experienced a reduction in dollarization. Mexico in 1982, Peru in 1985, and Argentina in 2002 introduced forced conversions of foreign currency deposits to domestic currency deposits. These conversions actually entailed a significant loss of government credibility. Mexico has also at times restricted domestic firms' holdings of foreign currency deposits, without much success.

While dollarization complicates the conduct of monetary policy, and may also exacerbate the situation in the case of a financial crisis, direct measures aimed at curbing dollarization should be avoided. Despite its costs, an increase in foreign currency deposits has a positive impact on financial deepening, providing the domestic banking system with resources available for lending, which is an important ingredient for sustainable economic growth. In addition, experience indicates that the effectiveness of direct measures is likely to be transitory at best, as domestic residents eventually find ways to circumvent them. The most effective "de-dollarization" measure therefore, is for the authorities to focus on the development of domestic financial markets, while maintaining strong macroeconomic policies.

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Table III-1. Azerbaijan: Indicators of Monetization and Financial Deepening
(in units as indicated)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
						(ratio)				
Indicators of Monetization										
M2 Velocity (Non-oil GDP/Avg M2)	...	9.0	12.5	10.9	11.1	10.3	14.7	11.3	11.7	11.9
M3 Velocity (Non-oil GDP/Avg M3)	...	4.7	7.0	8.4	8.4	7.3	10.4	7.4	6.7	6.2
M2 Multiplier (M2/Manat RM)	...	1.39	1.30	1.25	1.15	1.19	1.19	1.05	1.05	1.08
M3 Multiplier (M3/Total RM)	...	2.39	2.23	1.60	1.53	1.72	1.72	1.63	1.85	2.07
Indicators of Dollarization										
FCD/Total deposits (end-period)	...	...	0.49	0.50	0.57	0.52	0.64	0.78	0.85	0.84
FCD/M3 (end-period)	...	...	0.26	0.22	0.25	0.26	0.29	0.38	0.49	0.48
						(in percent of GDP)				
Seignorage revenue	25.5	14.9	3.9	1.8	2.2	-1.7	1.2	1.2	0.5	0.6
Inflation Tax	27.4	21.5	2.6	0.5	0.0	-0.5	0.0	0.1	0.1	0.2
Memorandum items										
CPI Inflation (end of period)	1,292.5	1,786.7	84.6	6.7	0.4	-7.6	-0.5	2.2	1.3	3.3

Source: Azeri authorities and IMF staff calculations.

Table III-2. BRO Countries: Seignorage Revenue
(in percent of GDP)

	1993	1994	1995	1996	1997	1998	1999	2000	2001
Armenia	38.1	7.2	2.6	1.9	1.3	0.3	0.0	1.8	0.7
Azerbaijan	25.5	14.9	3.9	1.8	2.2	-1.7	1.2	1.2	0.5
Belarus	7.7	9.5	4.2	2.8	3.6	5.9	3.9	2.5	2.5
Estonia	9.1	1.5	2.0	2.1	3.6	0.7	3.2	1.9	-1.3
Georgia	...	...	4.6	1.4	1.5	-0.3	0.9	1.4	0.6
Kazakhstan	14.2	6.8	3.0	0.9	1.8	-1.5	2.3	0.3	1.3
Kyrgyz Republic	...	4.5	6.1	2.1	1.7	0.6	1.6	0.8	1.1
Latvia	...	2.1	0.2	2.2	3.2	0.8	1.4	0.9	1.0
Lithuania	7.3	3.3	2.6	0.2	2.1	2.2	-0.4	-0.3	0.7
Moldova	9.0	5.6	3.0	0.8	2.7	-0.6	3.2	2.5	2.6
Russia	...	5.3	3.7	1.3	1.4	1.7	2.4	2.7	2.2
Tajikistan	...	...	...	3.3	5.9	0.7	1.2	2.2	1.4
Turkmenistan	...	13.6	10.4	3.6	1.6	4.4	1.3	4.9	2.2
Ukraine	...	...	3.7	1.6	2.3	1.5	2.6	2.8	3.1
Uzbekistan	...	...	8.4	7.7	1.5	2.7	2.1	2.3	1.4

Source: IFS and Fund staff estimates.

Table III- 3. BRO Countries: Inflation Tax
(in percent of GDP)

	1993	1994	1995	1996	1997	1998	1999	2000	2001
Armenia	52.0	8.0	1.2	0.3	1.0	-0.1	0.1	0.1	0.2
Azerbaijan	27.4	21.5	2.6	0.5	0.0	-0.5	0.0	0.1	0.1
Belarus	...	...	2.8	1.4	1.9	5.4	4.1	2.1	1.3
Estonia	3.8	4.3	2.7	1.3	1.2	0.5	0.5	0.6	0.5
Georgia	...	...	0.2	0.6	0.3	0.4	0.5	0.3	0.2
Kazakhstan	2.5	6.6	1.8	1.1	0.6	0.1	0.6	0.5	0.3
Kyrgyz Republic	...	... ...		2.7	1.0	1.3	2.2	0.6	0.2
Latvia	2.3	2.7	2.3	1.2	0.7	0.3	0.4	0.2	0.4
Lithuania	4.5	3.2	2.4	0.8	0.6	0.2	0.0	0.1	0.1
Moldova	10.3	3.8	1.9	1.3	1.0	1.4	3.2	1.5	0.7
Russia	...	7.2	4.4	1.3	0.7	4.1	2.0	1.4	1.4
Tajikistan	...	...	13.8	0.7	5.0	0.1	1.2	2.5	0.6
Turkmenistan	...	11.3	13.8	2.9	0.7	0.9	1.4	0.7	0.8
Ukraine	29.3	12.1	4.1	1.5	0.6	1.3	1.4	1.8	0.6
Uzbekistan	...	...	4.8	4.5	3.4	1.8	1.6	2.6	2.3

Source: IFS and Fund staff estimates.

Table III-4. A Comparative Perspective on the State of Structural Reforms in Azerbaijan in 2001 Relative to Other BRO Countries

Area	Azerbaijan's EBRD Index	Index of Other BRO Countries Relative to Azerbaijan		
		Better	Same	Worse
Price liberalization	3	Georgia (3.3), Moldova (3.3)	Armenia, Estonia, Kazakhstan, Kyrgyz Republic, Latvia, Lithuania, Russia, Tajikistan, Ukraine	Belarus (2), Turkmenistan (2), Uzbekistan (2)
Foreign exchange and trade liberalization	3.3	Armenia (4), Estonia (4.3), Georgia (4.3), Kyrgyz Republic (4), Latvia (4.3), Lithuania (4.3), Moldova (4.3)	Kazakhstan, Tajikistan	Belarus (2), Russia (2.7), Turkmenistan (1), Ukraine (3), Uzbekistan (1.7)
Small-scale privatization	3.3	Armenia (3.7), Estonia (4.3), Georgia (4), Kazakhstan (4), Kyrgyz Republic (4), Latvia (4.3), Lithuania (4.3), Russia (4), Tajikistan (3.7)	Moldova, Ukraine	Belarus (2), Turkmenistan (2), Uzbekistan (3)
Large-scale privatization	2	Armenia (3), Estonia (4), Georgia (3.3), Kazakhstan (3), Kyrgyz Republic (3), Latvia (3), Lithuania (3.3), Moldova (3), Russia (3.3), Tajikistan (2.3), Ukraine (3), Uzbekistan (2.7)		Belarus (1), Turkmenistan (1)
Enterprise reform	2	Estonia (3.3), Latvia (2.7), Lithuania (2.7), Russia (2.3)	Armenia, Georgia, Kyrgyz Republic, Moldova, Ukraine	Belarus (1), Tajikistan (1.7), Turkmenistan (1), Uzbekistan (1.7)
Competition policy	2	Estonia (2.7), Latvia (2.3), Lithuania (3), Russia (2.3), Ukraine (2.3)	Armenia, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Uzbekistan	Tajikistan (1.7), Turkmenistan (1)
Infrastructure reform	1.7	Armenia (2.3), Estonia (3.3), Georgia (2.3), Kazakhstan (2), Latvia (2.7), Lithuania (2.7), Moldova (2), Russia (2), Ukraine (2)	Uzbekistan	Belarus (1.3), Kyrgyz Republic (1.3), Tajikistan (1), Turkmenistan (1)
Banking sector reform	2.3	Estonia (3.7), Kazakhstan (2.7), Latvia (3.3), Lithuania (3)	Armenia, Georgia, Kyrgyz Republic, Moldova	Belarus (1), Russia (1.7), Tajikistan (1), Turkmenistan (1), Ukraine (2), Uzbekistan (1.7)
Reform of non-banking financial institutions	1.7	Armenia (2), Belarus (2), Estonia (3), Kazakhstan (2.3), Kyrgyz Republic (2), Latvia (2.3), Lithuania (3), Moldova (2), Ukraine (2), Uzbekistan (2)	Georgia, Russia	Tajikistan (1), Turkmenistan (1)
Legal extensiveness 1/	3	Estonia (3.3), Kazakhstan (4), Kyrgyz Republic (3.3), Latvia (3.7), Lithuania (3.7), Moldova (3.3), Ukraine (3.3)	Belarus, Georgia, Russia, Uzbekistan	Armenia (2.7), Tajikistan (2), Turkmenistan (2)
Legal effectiveness 1/	2	Belarus (3), Estonia (4), Georgia (3), Kazakhstan (4), Kyrgyz Republic (3) , Latvia (4), Lithuania (3.7), Moldova (3.7), Russia (3.7), Turkmenistan (3), Ukraine (3), Uzbekistan (3)	Armenia, Tajikistan	

Source: EBRD, Transition Report 2002.

1/ For the Kyrgyz Republic, the EBRD index for 2001 is not available, and the 2000 index is shown in the table.

Table III-5. Results of Panel Regression in BRO 1/ 2/

	Dependent Variables							
	Percent Change in M2/CPI				Percent Change in M3/CPI			
Explanatory Variables								
Change in GDP	0.96***	0.96***	0.95***	0.95***	0.87***	0.88***	0.83***	0.81***
	(4.6)	(4.8)	(4.6)	(4.7)	(4.2)	(4.2)	(3.9)	(3.9)
Change in CPI	-1.02***	-1.02***	-0.99***	-0.99***	-.97***	-0.97***	-0.91***	-0.91***
	(5.6)	(4.7)	(-5.6)	(-5.6)	(-5.35)	(-5.4)	(-4.9)	(4.95)
RUS	-13.3***	-13.3***	-12.4***	-12.4***	-10.7***	-10.6***	-9.6***	-9.7***
	(-3.1)	(-3.1)	(-2.9)	(-2.9)	(-2.5)	(-2.5)	(-2.2)	(-2.2)
EBRD Index of Banking Reform	14.7	13.7			27.6***	26.3***		
	(1.4)	(1.4)			(2.65)	(2.7)		
Average of EBRD Index of Structural Reforms			21.4	21.5			26.4**	26.3***
			(1.64)	(1.67)			(1.95)	(1.95)
State		-29.5		-49.4**		-46.9***		-53.5**
		(-1.5)		(-1.72)		(-2.4)		(-1.87)
Memorandum item								
Adjusted R	0.41	0.42	0.42	0.43	0.46	0.47	0.43	0.44

Source: EBRD Transition Report 2002, and IMF FSU database.

1/ Two and three asterisks indicate statistical significance at, respectively, 5 percent level 10 percent level.

2/ Data in paranthesis indicate t-statistics.

Table III-6. BRO Countries: Credit to Economy as a Share of GDP, 1995-2002
(in percent)

	1995	1996	1997	1998	1999	2000	2001	2002
Armenia	7.3	5.6	6.0	8.6	9.2	10.6	8.3	7.3
Azerbaijan	14.4	9.5	9.1	9.3	9.0	6.8	6.9	7.2
Belarus	11.6	11.3	13.4	28.1	14.9	16.3	14.9	15.8
Estonia	15.6	19.9	27.0	25.6	26.5	25.8	27.4	30.5
Georgia	6.1	3.3	4.6	6.1	7.4	8.7	9.1	10.2
Kazakhstan	7.1	4.5	4.7	6.3	8.2	11.6	16.7	19.1
Kyrgyz Republic	12.5	8.7	3.5	5.3	5.1	4.2	3.8	4.2
Latvia	9.0	7.9	11.4	15.5	16.5	19.7	24.8	31.5
Lithuania	16.2	11.5	11.2	12.0	13.6	12.2	12.1	14.6
Moldova	17.4	18.7	19.5	15.5	13.0	14.1	16.3	19.5
Russia	12.8	10.6	10.9	13.8	12.0	12.9	16.2	18.4
Tajikistan	8.5	4.0	4.8	13.4	13.5	19.2	22.9	20.6
Ukraine	8.2	7.4	8.4	9.2	10.0	12.3	14.6	20.0
Uzbekistan	18.5	19.2	20.8	24.5	21.4	27.9	36.9	33.9

Source: IMF FSU database, and Fund staff calculations.

Table III-7. BRO Countries: Growth of Credit to the Economy, 1995-2002
(in percent)

	1995	1996	1997	1998	1999	2000	2001	2002
Armenia	83.2	-2.0	30.4	69.4	10.2	21.1	-10.8	0.8
Azerbaijan	123.9	-16.0	11.1	11.2	5.8	-4.5	13.0	16.8
Belarus	133.8	54.2	126.1	302.7	129.1	228.9	71.5	58.2
Estonia	40.6	63.3	65.6	8.9	7.6	10.9	17.8	20.0
Georgia	...	-14.1	65.7	44.8	37.2	24.8	14.6	22.8
Kazakhstan	-36.7	-11.5	23.4	39.9	50.9	81.8	80.5	31.5
Kyrgyz Republic	...	0.1	-47.4	71.5	36.0	9.4	4.0	11.3
Latvia	-44.3	5.5	68.7	49.5	15.4	33.4	37.9	37.0
Lithuania	15.5	-6.8	17.5	20.3	13.1	-5.3	5.0	28.1
Moldova	68.7	29.1	19.6	-18.8	13.5	41.0	37.2	34.9
Russia	60.4	15.8	18.6	40.6	49.9	65.5	56.0	36.0
Tajikistan	-99.7	126.3	-99.8	350.4	32.7	90.2	66.1	9.0
Ukraine	124.7	35.7	29.4	20.7	37.1	61.1	41.0	47.5
Uzbekistan	85.6	91.9	89.5	70.6	31.4	99.1	99.9	39.4

Source: IMF FSU database, and IMF staff calculations.

IV. Tax Policy in Azerbaijan—Regional Context and Recent Developments

95. During the last few years, reforms in CIS countries gave tax policy systems the principle characteristics of systems in modern market oriented economies. After a first round of tax reforms in the early 1990's, modern tax codes were introduced in a second round of reforms in the late 1990's (e.g., Russia, the Kyrgyz Republic, and Georgia), which laid the foundation for simple and straightforward tax systems. In **Azerbaijan** a fundamentally revised tax code based on international standards was adopted in 2000. Its implementation has been supported by significant reforms in revenue administration.[14]

96. In most CIS countries these reforms were accompanied by **significant changes in income tax rates**. During the last five years, the individual income and profit taxes underwent substantial modifications. Most countries consolidated the number of income tax brackets and lowered the top bracket to around 20 to 25 percent. For the profit tax, rates were unified around 20 percent, which is somewhat low by international standards. In line with these general tax policy trends, **Azerbaijan** has recently reduced its profit tax rate from 27 percent to 25 percent, and has also introduced regional and sectoral discounts ranging from 40 to 80 percent of the base rate. In the short run these concessions are partially offset by reductions of generous depreciation allowances.

97. The **dominant source of tax revenue among transition economies continues to be the VAT**. VAT rates have been largely unchanged in the last years, with most countries maintaining a basic rate of 20 percent. Steady increases in registration thresholds have simplified operations and greatly improved the functioning of the VAT. In Azerbaijan the general rate for VAT is somewhat lower, at 18 percent, and also includes wide-ranging exemptions. A recent reduction in the registration threshold level was reversed primarily due to the increased administrative burden. Reforms have shifted toward building a more effective tax system for small tax payers.

98. Despite these accomplishments **Azerbaijan still faces important challenges in various tax policy matters**. Income and profit tax rates need further adjustments. The tax burden on wage income is large due to high social contribution rates. Reductions will require the development of a broad reform agenda including changes to expenditure policy. The government has also decided to re-unify profit tax rates in 2004. In this context further changes in the base profit tax rate could be considered. In the past exemptions from VAT have been granted on an ad hoc basis and a more systematic approach is needed. Finally, the government needs to review the appropriateness of the tax laws for SOCAR in the light of SOCAR's increasing ability to pay its taxes in cash due to reforms in the domestic energy sector.

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[14] Examples are the establishment of a large tax payer unit, reorganizations and consolidation of tax offices, adoption of new work processes, introduction of bonded warehouses and customs brokers, and partial automation of customs procedures.

A. Tax Matrix

TYPE OF TAX	NATURE OF TAX	SPECIAL RULES, EXEMPTIONS, ALLOWANCES, AND DEDUCTIONS	GENERAL RATES
1. PERSONAL INCOME TAX	Resident and non-resident physical persons are tax payers of the income tax. Residents pay taxes on worldwide income, non-residents on income from domestic sources. Income is defined as (i) wages including the monetary value of in-kind compensation and life insurance premia, and (ii) income from non-employment activity, interest, dividends, royalties, and (iii) all other income, which is not specifically exempt. Tax on gross wage income is collected at the source of payments through withholding from wage, salary, dividend and interest income. For interest and dividend income a withholding tax of 10 percent is applied, which fully covers the tax obligation from these sources. Resident physical persons who receive income from entrepreneurial activity file tax returns and make advance payments within the 15th day after the end of each quarter.	The following forms of income or persons are exempt: Income of diplomatic or consular employees; Gifts, financial aid, and inheritances state transfers, pensions, scholarships and allowances, alimony, and income from the supply of non-precious tangible movable property. Income from insurance premia, supply of real estate if occupied for at least three years. Compensatory payments in connection with damages, gifts, financial aid and inheritance if given threshold not exceeded. Income from agricultural production. Income from individual producers of copper, tin, pottery, utensils etc. Income of military servants. Winning prize from state lottery. Official representatives of foreign states. Other exemptions can be implemented by the appropriate executive authority such as a 3 year tax holiday for owner-operated farms. Reduced income base by 20 times non-taxable amount of wages: National heroes, veterans, widows of servicemen, people with illnesses related to Chernobyl accident. Reduced income base by 5 times of non-taxable amount of wage: 1st and 2nd categories of invalids other than war invalids. Reduced income base by 3 times non-taxable amount of wages: Parents and widows of veterans. Afghan war veterans. Internally displaced persons. Families with at least 3 children in guardianship can deduct 1 times the non-taxable amount of wages.	The following rates apply January 2002 for different income brackets: 0% under 100,000 12% 100,000-1,000,000 25% 1,000,001-5,000,000 35% 5,000,001 and above

TYPE OF TAX	NATURE OF TAX	SPECIAL RULES, EXEMPTIONS, ALLOWANCES, AND DEDUCTIONS	GENERAL RATES
2. PROFIT TAX	The profit tax is paid by resident and non-resident enterprises. The tax code specifies a base tax rate and discount for enterprises operating outside the capital or in specific sectors. Regional tax concessions require physical production in the area. Profits are defined as the difference between income and allowed deductions specified in the tax code. Tax payments are made quarterly within 15 days after end of each quarter and a final adjustment is made after the end-year income statement has been submitted at the end of the first quarter of the following calendar year. Quarterly tax advance payments are determined by using one of two methods: (i) by multiplying the volume of income times the ratio of last year's profit tax over income, or (ii) by using ¼ parts of previous year's paid profit tax.	Exemptions Charitable organizations, donations, gratuitous transfers, non-commercial membership fees. Profits of the national bank, income from international organizations, and from state authority and budgetary organizations. Concessions Taxes are half rate for organizations with 50% of employees from social organizations. Deductions Expenses connected with earning income. Certain types of bad and doubtful debt. Allocations to a reserve fund for insurance companies with exceptions. Expenses on scientific-research, experimental construction, and costs incurred by geological exploration, and expenses on intangible assets. Depreciation of capital stock with accelerated schedule for some items. Repair expenses and costs incurred for geological exploration. Carry over of losses exceeding income of a given year to the next year for up to 5 years.	Profits tax rate at 25%. Discounts on the tax rate 80% in cities outside Baku 40% in mountainous regions 60% in other districts 80% for tourism activities 40% for handicraft and woodwork craftsmanship
3. VALUE ADDED TAX (VAT)	The VAT is implemented through a credit-invoice mechanism and applies to goods and services within the country as well as to imports. VAT registration is required if the value of transactions for the previous 3 months exceeds 1250 times the minimum tax-exempted wages. This is equivalent to an annual turnover of $US 100,000 at end 2002 exchange rates. VAT applicable activities include brokerage fees and gratuitous transfer of goods and financial assistance.	The following activities or items are exempt from VAT. Property purchase in the process of privatization. Financial services including leasing. Supply of national and foreign currency. Imports of gold, foreign currency and similar items. Imports of capital investments. Services of state and other official authorities. Purchases or sales connected to mass media products, editing, publishing, printing, services related to funeral ceremonies. Activities of international organizations. Imports by the national bank. Transactions of fixed and moveable assets to the State Oil	18% uniform

TYPE OF TAX	NATURE OF TAX	SPECIAL RULES, EXEMPTIONS, ALLOWANCES, AND DEDUCTIONS	GENERAL RATES
		Fund Other imports can be exempted by appropriate executive authority such as agricultural products. Zero-rated items or activities. Goods and services of foreign official establishments and representatives. Activities related to humanitarian aid. Exports of goods and services. International transportation of cargo an passengers. Dispatch of gold and other valuables to ANB.	
4. EXCISE TAXES	All enterprises and physical persons producing or importing excisable goods are taxpayers. The tax code defines drinking alcohol, tobacco products and oil products as excisable goods.	Exemptions Imports of less than 3 liters of alcohol, three packs of cigarettes and fuel in car for personal use. Imports related to humanitarian aid. Goods in transit and temporary imports. Zero-rated items or activities. Export of excisable goods.	Tax rates are determined by the relevant executive authority body.
5.ROYALTY TAX	Tax based on utilization of underground mineral resources payable by resident and non-resident individuals and enterprises.	Royalty is not paid on oil or gas exports from the international consortium of oil producers (AIOC). Royalties on oil and gas production from the state owned oil company (SOCAR) are limited due the use of a negotiated tax target for SOCAR. Concession of 50% of base rate Enterprises and individuals producing mineral water in mountainous regions.	26% on value of crude oil 20% on value of natural gas Other minerals and materials: 3-10%
6. LAND TAX	Tax levied on land plots owned by resident and non resident physical and legal persons.	Exempt are Land in common use of residential areas. Land of state authority bodies and budgetary organizations and national bank. Lands of state forestry and water funds. State boundary land strips and land used for defense. Land tax reduced by 50% on non-taxable amount of monthly income, if owner exempt from income tax	Rates differ by region and type of land use.
7. PROPERTY TAX	Paid by resident and non resident physical persons and enterprises on the value of property owned including buildings and vehicles.	Exempt are Buildings of the state authority, national bank, and public organizations of invalids.	Property tax obligation: Buildings: 0.01% of the value of a building

TYPE OF TAX	NATURE OF TAX	SPECIAL RULES, EXEMPTIONS, ALLOWANCES, AND DEDUCTIONS	GENERAL RATES
		Workshop premises of physical persons who are engaged in a list of activities such as making pottery, tin etc. Buildings with a value of less than 300 times the non-taxable amount of monthly income. Concessions For military service men, pensioners and people who receive income tax concessions the amount of property tax is reduced by 1.5 times the non-taxable amount of wages. Small scale entrepreneurial activity of physical persons. Deductions for enterprises for the property value of buildings used for environmental protection, civil defense, fire safety, pipelines, railways, roads, land irrigation, communication, vehicles trolley buses and trams, buildings for health, education, and sport and fixed asset depreciation. Property tax is reduced by 50% if exempt from income tax.	Water and air transportation: 0.02% times non-taxable monthly wages per 1 sm3 of engine; 1% of market price for motorless water and air facilities. Cars and trucks: 0.01% (0.02% for trucks) of non-taxable monthly wages per 1 sm3 of engine
8. STATE ROAD TAX	Tax for use of roads levied on vehicles from foreign states entering the country.		Rates depend on type of vehicle, period of stay in country, and cargo of trucks.
9. SIMPLIFIED TAX	Taxpayers are enterprises not registered for VAT purposes due to low turnover and passenger and cargo transportation including taxis. The subject of taxation is volume of turnover during the reporting period.	Taxpayers of the simplified tax do not pay VAT, profit, property and land tax.	4% of gross turnover in Baku 2% of gross turnover in other areas 10% of gross turnover for passenger and cargo transportation
10. EXPORT TAX	Tax paid on revenue markup over domestic prices of crude oil and oil products exports. Tax is assessed on the difference between export value minus export costs and value at domestic wholesale prices.	Legally not part of the tax code. Re-introduced in 2003 in the annual budget law. Applies only to SOCAR.	20% of value difference

Table 1. Azerbaijan: Gross Domestic Product by Sector of Origin, 1998–2002

	1998	1999	2000	2001	2002 1/
	(In billions of manats)				
Gross Domestic Product at market prices	17,203	18,875	23,591	26,578	29,602
Taxes on goods and services	1,177	1,336	1,512	2,166	2,376
Subsidies on goods and services	468	590	56	74	82
Gross Domestic Product at factor cost	16,494	18,129	22,135	24,486	27,308
Industry	3,784	5,327	8,495	9,999	10,320
Extraction	...	3,493	6,522	7,880	8,121
of which: oil and gas extraction	...	3,477	6,511	7,875	8,111
Processing	...	1,140	1,248	1,731	1,817
of which: oil and gas processing	...	316	676	632	632
Electricity, gas and water supply	...	694	725	387	383
Agriculture	3,092	3,440	3,755	3,943	4,195
Construction	2,229	2,053	1,540	1,554	3,185
Transportation and communication	1,612	2,022	2,836	2,695	2,903
Trade	1,011	1,336	1,575	1,966	2,354
Social services	4,315	3,951	3,934	4,330	4,350

Source: Azerbaijan State Statistics Committee.
1/ Preliminary data.

Table 2. Azerbaijan: Gross Domestic Product by Final Use, 1998–2002

	1998	1999	2000	2001	2002 1/
			(In billions of manats)		
Gross domestic product	17,203	18,875	23,591	26,578	29,602
Final consumption	16,908	16,497	18,557	20,125	22,095
Households	14,256	13,657	15,371	16,758	17,796
Government	2,652	2,840	3,185	3,366	4,300
Gross fixed capital formation	6,109	5,381	5,459	6,081	10,293
Private	5,793	4,688	4,745	5,138	8,599
Public 2/	316	693	713	943	1,694
Change in inventories	-369	-380	-581	-586	-592
Resource gap	-5,476	-2,623	156	958	-2,195
Exports of goods and nonfactor services	3,906	5,282	9,210	10,877	12,893
Imports of goods and nonfactor services	9,381	7,905	9,054	9,918	15,087
Statistical discrepancy	31	0	0	0	0
			(In percent of GDP)		
Gross domestic product	100.0	100.0	100.0	100.0	100.0
Final consumption	98.3	87.4	78.7	75.7	74.6
Households	82.9	72.4	65.2	63.1	60.1
Government	15.4	15.0	13.5	12.7	14.5
Gross fixed capital formation	35.5	28.5	23.1	22.9	34.8
Private	33.7	24.8	20.1	19.3	29.0
Public	1.8	3.7	3.0	3.5	5.7
Change in inventories	-2.1	-2.0	-2.5	-2.2	-2.0
Net exports	-31.8	-13.9	0.7	3.6	-7.4
Exports of goods and nonfactor services	22.7	28.0	39.0	40.9	43.6
Imports of goods and nonfactor services	54.5	41.9	38.4	37.3	51.0
Statistical discrepancy	0.2	0.0	0.0	0.0	0.0

Sources: Azerbaijan State Statistics Committee; and Fund staff estimates.

1/ Preliminary data.

2/ For 2002 includes investment of US$50 mln. for the governemnt's share in BTC, equivalent to 0.8 percent of GDP.

Table 3. Azerbaijan: Income, Savings, and Net Financial Balances, 1998-2002

	1998	1999	2000	2001	2002 1/
	(In billions of manats)				
GDP at market prices	17,203	18,875	23,591	26,578	29,602
Net factor income from abroad	141	191	-1,321	-1,547	-1,864
Gross national product	17,344	19,066	22,269	25,031	27,738
Unrequited transfers (net)	297	357	327	357	340
Gross disposable national income	17,641	19,423	22,596	25,387	28,078
Total consumption	16,908	16,497	18,557	20,125	22,095
Private	14,256	13,657	15,371	16,758	17,796
Consolidated government	2,652	2,840	3,185	3,366	4,300
Gross national savings 2/	733	2,926	4,039	5,263	5,983
Private	1,093	3,129	3,464	4,073	4,429
Consolidated government	-360	-202	576	1,190	1,554
Gross domestic savings 3/	295	2,378	5,034	6,453	7,506
Gross fixed investment	6,109	5,381	5,459	6,081	10,293
Private sector	5,793	4,688	4,745	5,138	8,599
Consolidated government	316	693	713	943	1,694
	(In percent of GDP)				
GDP at market prices	100.0	100.0	100.0	100.0	100.0
Net factor income from abroad	0.8	1.0	-5.6	-5.8	-6.3
Gross national product	100.8	101.0	94.4	94.2	93.7
Unrequited transfers (net)	1.7	1.9	1.4	1.3	1.1
Gross disposable national income	102.5	102.9	95.8	95.5	94.9
Total consumption	98.3	87.4	78.7	75.7	74.6
Private	82.9	72.4	65.2	63.1	60.1
Consolidated government	15.4	15.0	13.5	12.7	14.5
Gross national savings	4.3	15.5	17.1	19.8	20.2
Private	6.4	16.6	14.7	15.3	15.0
Consolidated government	-2.1	-1.1	2.4	4.5	5.2
Gross domestic savings	1.7	12.6	21.3	24.3	25.4
Gross fixed investment	35.5	28.5	23.1	22.9	34.8
Private sector	33.7	24.8	20.1	19.3	29.0
Consolidated government	1.8	3.7	3.0	3.5	5.7

Sources: Azeri authorities; and Fund staff estimates.

1/ Preliminary data.

2/ Gross disposable national income minus total consumption.

3/ GDP at market prices minus total consumption.

Table 4. Azerbaijan: Crude Oil and Gas Production, 1981–2002

	Offshore crude oil		Onshore crude oil	Total crude oil	Total gas
	Total	AIOC			
	(In millions of tons)				(In billions of m3)
1981	9.4	-	4.7	14.1	14.6
1982	8.2	-	4.7	12.9	14.9
1983	8.4	-	4.3	12.7	14.5
1984	8.4	-	4.1	12.5	14.4
1985	9.2	-	3.9	13.1	14.1
1986	9.4	-	3.9	13.3	13.6
1987	10.1	-	3.7	13.8	12.5
1988	10.3	-	3.4	13.7	11.8
1989	10.2	-	3.0	13.2	11.1
1990	9.9	-	2.6	12.5	9.9
1991	9.5	-	2.2	11.7	8.6
1992	9.1	-	2.0	11.1	7.9
1993	8.3	-	2.0	10.3	6.8
1994	7.8	-	1.8	9.6	6.4
1995	7.5	-	1.6	9.1	6.6
1996	7.5	-	1.6	9.1	6.3
1997	7.5	0.1	1.6	9.1	6.0
1998	9.8	2.4	1.6	11.4	5.6
1999	12.3	4.8	1.5	13.8	6.0
2000	12.5	5.0	1.5	14.0	6.0
2001	13.3	5.9	1.6	14.9	5.7
2002	13.8	6.4	1.5	15.3	5.5

Sources: Azerbaijan State Statistics Committee.

Table 5. Azerbaijan: Production Indicators, 1998–2002

	1998	1999	2000	2001	2002
		(Index of real output; 1992 = 100)			
Total industry	45.5	47.1	50.3	52.9	54.8
Energy	78.3	82.4	83.9	85.2	87.1
Electricity	74.7	75.8	78.2	79.7	78.5
Oil and gas	80.1	85.7	90.2	91.6	93.7
Metallurgy	4.4	7.1	17.8	7.4	14.5
Machine building	14.2	6.3	12.3	14.7	12.0
Chemical and petro-chemical	29.6	32.2	39.7	22.9	29.8
Construction materials	12.1	9.5	11.4	21.0	29.8
Light industry	15.6	9.3	11.5	8.9	9.7
Textiles	15.3	10.0	12.3	9.7	12.2
Agro processing	15.3	15.9	16.2	18.4	18.3
Agriculture	70.5	75.4	84.5	93.9	99.9
Grains	71.1	82.1	115.2	150.8	164.1
Cotton	33.6	28.8	27.2	24.9	23.8
		(Real percentage changes)			
Total industry	2.2	3.5	6.8	5.2	3.6
Energy	7.0	5.2	1.8	1.5	2.2
Electricity	6.0	1.5	3.2	1.9	-1.5
Oil and gas	7.5	7.0	5.3	1.6	2.3
Metallurgy	-54.6	61.4	150.7	-58.4	95.9
Machine building	-30.4	-55.6	95.2	19.5	-18.4
Chemical and petro-chemical	-11.4	8.8	23.3	-42.3	30.1
Construction materials	-22.4	-21.5	20.0	84.2	41.9
Light industry	-41.8	-40.4	23.7	-22.6	9.0
Textiles	-44.2	-34.6	23.0	-21.1	25.8
Agro processing	-2.5	3.9	1.9	13.6	-0.5
Agriculture	6.2	7.0	12.1	11.1	6.4
Grains	-15.7	15.5	40.3	30.9	8.8
Cotton	-9.3	-14.3	-5.6	-8.5	-4.4

Source: Azerbaijan State Statistics Committee.

Table 6. Azerbaijan: Average Monthly Wages by Sector, 1998–2002

	1998	1999 1/	2000	2001	2002
	(Annual average, in manats)				
National economy	168,419	184,368	221,606	259,991	315,219
Industry	277,050	365,575	436,237	499,763	554,398
Agriculture	43,957	65,122	69,081	78,936	88,729
Transportation 2/	291,028	249,870	292,421	330,281	365,414
Communication 2/	263,576	-	-	-	-
Construction	441,595	428,473	416,663	436,924	548,286
Trade	75,789	117,943	119,284	149,648	175,115
Hotel industry	120,925	343,351	314,858	419,447	427,140
Health and social services	70,062	71,098	73,395	80,630	89,949
Education	132,209	141,532	156,065	165,225	168,961
Culture 3/	76,016	-	-	-	-
Banking and insurance	332,796	590,961	632,626	723,606	1,019,767
Government administration	165,051	181,746	194,528	223,421	260,356
	(Annual percentage changes)				
National economy	18.9	9.5	20.2	17.3	21.2
Industry	19.8	32.0	19.3	14.6	10.9
Agriculture	-11.3	48.1	6.1	14.3	12.4
Transportation 2/	28.3	-14.1	17.0	12.9	10.6
Communication 2/	27.5	-	-	-	-
Construction	47.3	-3.0	-2.8	4.9	25.5
Trade	12.4	55.6	1.1	25.5	17.0
Hotel industry	6.4	183.9	-8.3	33.2	1.8
Health and social services	3.3	1.5	3.2	9.9	11.6
Education	10.3	7.1	10.3	5.9	2.3
Culture 3/	10.9	-	-	-	-
Banking and insurance	39.4	77.6	7.1	14.4	40.9
Government administration	50.8	10.1	7.0	14.9	16.5
Memorandum items:					
Average annual wage (U.S. dollars)	43.5	44.7	49.5	55.8	65.2
Agriculture/(Banking and insurance) ratio	0.13	0.11	0.11	0.11	0.09

Sources: Azerbaijan State Statistics Committee; and Fund staff estimates.

1/ In 1999, State Statistics Committee introduced a new economic classification. As a result, sectoral changes between 1998 and 1999 should be treated with caution.

2/ Starting from 1999 salaries for transport and communications sectors are grouped into one type of activity and a single figure is shown for both sectors.

3/ Data are not available.

Table 7. Azerbaijan: Labor Market Indicators, 1998–2002

	1998	1999 1/	2000	2001	2002
			(In thousands of persons)		
Population	7,949	8,016	8,081	8,141	8,203
Working age population	4,513	4,615	4,730	4,858	4,895
Labor force	3,744	3,748	3,748	3,763	3,778
Total employment	3,702	3,707	3,705	3,715	3,727
Industry	251	259	250	247	252
Government	656	728	745	682	759
Agriculture	1,140	1,566	1,517	1,482	1,495
Other	1,655	1,154	1,193	1,304	1,221
Unemployment	42	41	43	48	51
Unemployment rate (in percent of labor force)	1.1	1.1	1.1	1.3	1.3
Registered unemployed	42	41	43	48	51
Pensioners	1,177	1,202	1,219	1,245	1,276
			(Percentage changes)		
Population	0.9	0.8	0.8	0.7	0.8
Working age population	3.6	2.3	2.5	2.7	0.8
Labor force	0.3	0.1	0.0	0.4	0.4
Total employment	0.2	0.1	-0.1	0.3	0.3

Sources: Azerbaijan State Statistics Committee; and Fund staff estimates.

1/ In 1999 the State Statistics Committee introduced a new economic classification. As a result, sectoral changes between 1998 and 1999 should be treated with caution.

Table 8. Azerbaijan: Consumer Price Index, 1999–2002

			Percentage changes				
				Quarterly		Annual	
		Index Dec 1994=100	In the month	End of Period	Average	End of Period	Average
1999	January	181.9	-0.5			-8.7	-1.4
	February	181.3	-0.4			-9.4	-2.2
	March	181.3	0.0	-0.8	-4.9	-10.5	-3.1
	April	181.6	0.2			-10.7	-3.9
	May	181.3	-0.2			-9.8	-4.7
	June	179.8	-0.8	-0.8	-0.3	-9.6	-5.5
	July	178.3	-0.8			-9.4	-6.3
	August	178.4	0.0			-9.7	-7.3
	September	180.3	1.1	0.3	-1.0	-9.0	-8.1
	October	180.8	0.3			-7.5	-8.7
	November	181.2	0.2			-6.8	-9.1
	December	181.9	0.4	0.9	1.3	-0.5	-8.5
2000	January	183.3	0.7			0.7	-7.8
	February	185.2	1.0			2.2	-6.9
	March	185.3	0.1	1.8	1.8	2.2	-5.9
	April	185.3	0.0			2.0	-4.8
	May	184.4	-0.5			1.7	-3.8
	June	182.9	-0.8	-1.3	-0.2	1.7	-2.9
	July	181.9	-0.5			2.0	-1.9
	August	181.6	-0.2			1.8	-0.9
	September	182.9	0.7	0.0	-1.1	1.4	0.0
	October	183.9	0.6			1.7	0.8
	November	184.8	0.4			2.0	1.6
	December	186.0	0.6	1.7	1.5	2.2	1.8
2001	January	186.6	0.3			1.8	1.9
	February	187.6	0.6			1.3	1.8
	March	188.2	0.3	1.2	1.4	1.6	1.8
	April	188.5	0.2			1.7	1.7
	May	187.5	-0.5			1.7	1.7
	June	186.8	-0.4	-0.7	0.1	2.2	1.8
	July	185.3	-0.8			1.8	1.8
	August	184.3	-0.5			1.5	1.7
	September	185.2	0.5	-0.9	-1.4	1.2	1.7
	October	186.2	0.6			1.2	1.7
	November	186.8	0.3			1.1	1.6
	December	188.5	0.9	1.8	1.2	1.3	1.5
2002	January	189.7	0.6			1.7	1.5
	February	190.5	0.4			1.5	1.6
	March	191.3	0.4	1.5	1.8	1.6	1.6
	April	193.1	0.9			2.4	1.6
	May	194.0	0.5			3.5	1.8
	June	192.0	-1.0	0.4	1.3	2.8	1.8
	July	191.2	-0.4			3.2	1.9
	August	190.2	-0.6			3.2	2.1
	September	191.0	0.5	-0.5	-1.2	3.2	2.2
	October	192.2	0.6			3.2	2.4
	November	193.6	0.7			3.6	2.6
	December	194.8	0.6	2.0	1.4	3.3	2.8

Source: Azerbaijan State Statistics Committee.

Table 9. Azerbaijan: Breakdown of Consumer Price Index, 1999–2002

	Total		Food items		Non-food items		Non-food goods		Services	
	Percentage change	Index Dec 94=100	Percentage change	Index Dec 94=100	Percentage change	Index Dec 94=100	Percentage change	Index Dec 94=100	Percentage change	Index Dec 94=100
1999 January	-0.5	181.9	-0.6	171.5	-0.1	228.1	-0.1	179.3	0.0	392.0
February	-0.4	181.3	-0.4	170.7	-0.3	227.5	-0.4	178.6	0.0	391.9
March	0.0	181.3	-0.5	169.8	0.9	229.6	-0.1	178.4	2.4	401.2
April	0.2	181.6	0.3	170.4	-0.1	229.3	-0.2	178.1	0.0	401.2
May	-0.2	181.3	-0.3	169.9	0.0	229.3	0.0	178.1	0.0	401.2
June	-0.8	179.8	-1.3	167.7	0.0	229.4	0.0	178.1	0.0	401.2
July	-0.8	178.3	-1.3	165.5	0.0	229.4	0.0	178.2	0.0	401.2
August	0.0	178.4	0.1	165.6	0.0	229.4	0.0	178.2	0.0	401.2
September	1.1	180.3	1.7	168.5	0.0	229.3	0.0	178.1	0.0	401.1
October	0.3	180.8	-0.4	167.9	1.4	232.5	0.7	179.4	2.2	410.0
November	0.2	181.2	0.0	167.9	0.6	233.9	0.0	179.4	1.5	416.0
December	0.4	181.9	0.7	169.0	0.0	233.8	0.0	179.4	0.0	416.0
2000 January	0.7	183.3	0.4	169.7	1.2	236.6	2.0	182.9	0.2	416.7
February	1.0	185.2	1.7	172.7	-0.2	236.3	0.1	183.0	-0.5	414.6
March	0.1	185.3	1.1	174.7	-1.8	232.0	-0.5	182.1	-3.6	399.7
April	0.0	185.3	0.2	175.0	-0.3	231.4	-0.2	181.7	-0.4	397.9
May	-0.5	184.4	-0.7	173.8	-0.1	231.1	-0.1	181.4	-0.1	397.6
June	-0.8	182.9	-1.3	171.5	0.0	231.0	0.0	181.3	0.0	397.6
July	-0.5	181.9	-0.8	170.2	0.0	230.9	-0.1	181.2	0.0	397.5
August	-0.2	181.6	-0.3	169.7	0.0	230.9	0.0	181.2	0.0	397.5
September	0.7	182.9	1.1	171.6	0.1	231.1	0.1	181.5	0.0	397.5
October	0.6	183.9	0.8	172.9	0.3	231.7	0.4	182.3	0.0	397.5
November	0.4	184.8	0.7	174.0	0.0	231.8	0.1	182.4	0.0	397.5
December	0.6	186.0	1.0	175.8	0.0	231.8	0.0	182.4	0.0	397.5
2001 January	0.3	186.6	0.6	176.9	-0.2	231.2	-0.4	181.6	0.0	397.6
February	0.6	187.6	1.0	178.7	-0.1	231.0	0.0	181.7	-0.3	396.5
March	0.3	188.2	0.5	179.5	0.0	230.9	0.0	181.7	-0.1	396.2
April	0.2	188.5	0.4	180.3	-0.2	230.4	-0.4	181.0	0.0	396.3
May	-0.5	187.5	-0.9	178.7	0.1	230.6	0.2	181.3	0.0	396.3
June	-0.4	186.8	-0.5	177.7	-0.1	230.4	0.0	181.3	-0.2	395.3
July	-0.8	185.3	-1.4	175.2	0.1	230.7	0.2	181.6	0.0	395.3
August	-0.5	184.3	-0.7	174.0	-0.2	230.1	-0.4	180.9	0.0	395.3
September	0.5	185.2	0.5	174.8	0.4	231.1	0.7	182.3	0.0	395.3
October	0.6	186.2	0.5	175.7	0.7	232.6	1.1	184.3	0.0	395.2
November	0.3	186.8	0.4	176.5	0.1	232.9	0.2	184.7	0.0	395.2
December	0.9	188.5	1.4	179.0	0.0	233.0	0.0	184.8	0.0	395.2
2002 January	0.6	189.7	0.8	180.5	0.3	233.7	0.5	185.8	0.0	395.3
February	0.4	190.5	0.7	181.7	0.0	233.8	0.0	185.8	0.0	395.3
March	0.4	191.3	0.6	182.9	0.0	233.8	0.0	185.9	-0.1	394.9
April	0.9	193.1	1.4	185.5	0.1	234.1	0.0	186.0	0.3	395.9
May	0.5	194.0	0.7	186.9	0.1	234.2	0.1	186.2	-0.1	395.7
June	-1.0	192.0	-1.5	184.0	-0.1	233.9	-0.1	185.9	-0.1	395.4
July	-0.4	191.2	-0.6	182.9	-0.1	233.8	-0.1	185.8	0.0	395.3
August	-0.6	190.2	-0.8	181.3	-0.1	233.6	0.0	185.7	-0.1	394.9
September	0.5	191.0	0.5	182.3	0.3	234.3	0.5	186.6	0.0	394.9
October	0.6	192.2	0.9	183.9	0.1	234.6	0.2	187.0	0.0	394.9
November	0.7	193.6	1.0	185.8	0.3	235.3	0.5	188.0	0.0	394.8
December	0.6	194.8	0.9	187.5	0.0	235.3	0.0	188.0	0.0	394.8

Source: Azerbaijan State Statistics Committee.

Table 10. Azerbaijan: Prices of Electricity, 1998-2002
(In manat per kilowatt-hour)

	1998	1999	2000	2001	2002
Population	96	96	96	96	96
Industry and construction	206	192	174	130	130
Budgetary organizations	...	192	174	130	130
Apsheron Regional Water Company	158	158	157	130	130
Agriculture	174	168	162	130	130
Electrified transport	...	220	178	130	130
Non industrial consumption	265	318	238	130	130
Trade and services	408	408	282	250	250

Source: Ministry of Economic Development.

Table 11. Azerbaijan: Prices of Gas, 1998-2002
(In manat per thousand cubic meters)

	1998	1999	2000	2001	2002
Population	35,560	35,560	35,560	35,560	35,560
Communal	108,103	108,103	108,103	106,301	106,301
Industry	240,000	240,000	240,000	236,000	236,000
Azerenergy	198,000	198,000	198,000	194,700	194,700

Source: Ministry of Economic Development.

Table 12. Azerbaijan: Consolidated Government Operations, 1998-2002

(In billions of manats)

	1998	1999	2000	2001	2002
Total revenue and grants	3,370	3,487	5,006	5,714	8,276
Total revenue	3,358	3,425	4,895	5,686	8,219
Tax revenue	2,396	2,688	3,414	3,891	4,575
Income tax	749	816	1,105	1,062	1,287
Individual income tax	408	448	476	474	550
Enterprise profits tax	340	368	629	588	737
Social security contributions	437	458	563	565	641
Value added tax (VAT)	719	791	957	1,266	1,674
Excise taxes	95	114	112	555	433
Taxes on international trade	293	318	494	300	376
Other taxes	105	192	183	143	164
Nontax revenue	961	738	1,481	1,795	2,041
Of which: Oil Fund revenues	0	0	669	1,001	1,153
Of which: extra-budgetary	615	230	202	207	310
Tax credits for SOCAR energy subsidies	...	...	...	...	1,603
Total grants (current)	13	61	111	28	57
Total expenditure	4,082	4,447	4,914	5,403	8,384
Current expenditure	3,767	3,754	4,201	4,459	6,690
Primary current expenditure	3,750	3,679	4,108	4,343	5,002
Wages and salaries	811	956	1,090	1,187	1,278
Goods and services	942	1,019	1,139	1,196	1,353
Transfers to households	1,093	1,349	1,575	1,665	1,941
Of which: social protection	943	1,139	1,330	1,334	1,575
pensions	79	75	81	102	120
scholarship	20	19	48	14	16
other	52	116	115	215	229
Subsidies	...	...	55	76	73
Oil Fund operating expenditures	...	...	...	0	3
Other	884	336	249	220	354
Of which: extra-budgetary	626	252	202	195	303
SOCAR energy related subsidies	...	...	...	...	1,603
Interest	5	75	93	116	85
domestic	11	16	21	32	28
external	17	60	72	84	56
Current balance (deficit=-)	-397	-267	805	1,254	1,586
Investment expenditure and net lending	316	693	713	943	1,694
Domestically-financed	185	237	314	283	885
Of which: Oil Fund	...	...	...	4	189
Foreign-financed	130	456	399	660	809
Statistical discrepancy	-37	-65	229	64	33
Consolidated government deficit, cash basis	-675	-895	-137	247	-141
Excluding Oil Fund (general government)	-675	-895	-806	-750	-1,101
Excluding foreign project loans	-545	-439	262	907	668
Excluding grants	-688	-956	-248	219	-197
Financing	675	895	137	-247	138
Domestic (net)	233	-434	-686	-921	-793
Banking system	124	-308	438	62	90
Of which: Central bank	129	-345	228	-104	23
Commercial banks	-5	37	210	167	67
Of which: Oil Fund	...	...	-1,134	-1,105	-1,038
Of which: T bills	0	36	41	54	-50
Nonbank sector	0	0	0	-67	3
Privatizations and other sale of assets	108	117	40	86	106
Other	0	-140	-30	102	47
External (net)	443	1,329	823	675	931
Loans	443	1,340	850	709	988
Project loans	154	457	394	679	844
Oil bonuses	289	715	457	30	0
World Bank SAC	0	168	0	0	144
Amortization due	0	-12	-27	-34	-57

Sources: Ministry of Finance, State Oil Fund, Social Protection Fund; and Fund staff estimates.

Table 13. Azerbaijan: Functional Classification of State Budget Expenditure, 1998-2002

	1998	1999	2000	2001	2002
	(In billions of manats)				
General government services 1/	229	256	262	304	358
Defense	388	436	485	532	605
Public order and justice	275	343	372	427	472
Education	570	790	906	928	952
Health	156	186	204	210	224
Social security	617	606	697	731	951
Housing and community affairs	70	71	94	84	100
Recreation and culture	92	92	106	113	120
Agriculture	82	155	170	171	227
Public works, transport, and communications	86	104	180	256	343
Other economic services and expenditures	77	149	325	275	305
Total expenditure (including investment)	2,642	3,189	3,801	4,031	4,658

Sources: Ministry of Finance; and staff estimates.
1/ Presidency, Cabinet of Ministers and Parliament.

Table 14. Azerbaijan: Selected Fiscal Indicators, 1998-2002
(In percent of GDP, unless otherwise indicated)

	1998	1999	2000	2001	2002 1/
Total revenue and grants	19.6	18.5	21.2	21.5	28.0
Total revenue	19.5	18.1	20.7	21.4	27.8
Of which: tax revenue	13.9	14.2	14.5	14.6	15.5
nontax revenue	5.6	3.9	6.3	6.8	6.9
tax credits for SOCAR energy subsidies		...	...	...	5.4
Of which: oil revenue 1/	3.8	4.2	7.5	9.4	15.5
non-oil revenue	15.7	14.0	13.2	12.0	12.3
Non-oil revenue (percent of non-oil GDP)	17.5	17.1	18.3	17.0	16.9
Total grants (current)	0.1	0.3	0.5	0.1	0.2
Total expenditure	23.7	23.6	20.8	20.3	28.3
Primary expenditure	23.6	23.2	20.4	19.9	22.6
Primary current expenditure	21.8	19.5	17.4	16.3	16.9
Of which: wage bill	4.7	5.1	4.6	4.5	4.3
goods and services	5.5	5.4	4.8	4.5	4.6
transfers	6.4	7.1	6.7	6.3	6.6
other	5.3	1.9	1.3	1.1	1.5
SOCAR energy related subsidies	...	...	...	...	5.4
Domestically financed investment	1.1	1.3	1.3	1.1	3.0
Of which: Oil Fund	...	...	...	0.0	0.6
Foreign-financed investment expenditure	0.8	2.4	1.7	2.5	2.7
Interest on public debt	0.1	0.4	0.4	0.4	0.3
Wages/ primary expenditure (in percentage)	21.6	26.0	26.5	27.3	25.5
Transfers / primary expenditure (in percentage)	29.2	36.7	38.3	38.3	38.8
Wages/ non-oil revenue (in percentage)	30.1	36.2	34.9	37.3	35.2
Transfers / nonoil revenue (in percentage)	40.6	51.1	50.4	52.4	53.4
Expenditure in education and health	4.2	5.2	4.7	4.3	4.6
Education	3.3	4.2	3.8	3.5	3.7
Health	0.9	1.0	0.9	0.8	0.9
Military expenditure	2.3	2.3	2.1	1.8	2.1
Current expenditure	21.9	19.9	17.8	16.8	22.6
Investment expenditure	1.8	3.7	3.0	3.5	5.7
Current balance (+ =surplus)	-2.3	-1.4	3.4	4.7	5.4
Primary balance (+ =surplus)	-3.8	-4.3	-0.2	1.4	-0.2
Primary balance, excluding oil (+ =surplus) 1/	-7.7	-8.5	-7.7	-8.1	-15.7
Primary balance (excl. externally financed investment)	-3.1	-1.9	1.5	3.8	2.5
Consolidated government deficit, cash basis	-3.9	-4.7	-0.6	0.9	-0.5
Excluding Oil Fund (general government)	-3.9	-4.7	-3.4	-2.8	-3.7
Excluding foreign project loans	-3.2	-2.3	1.1	3.4	2.3
Excluding grants	-4.0	-5.1	-1.1	0.8	-0.7
Non-oil balance	-7.8	-8.9	-8.1	-8.5	-10.5
Memorandum items:					
Total external assistance, including IMF (net)	3.5	9.1	2.6	2.2	2.7
Of which: IMF (net)	0.9	2.0	-1.0	-0.5	-0.6
Total external assistance, excluding IMF	2.6	7.1	3.6	2.7	3.3
Project financing	0.9	2.4	1.7	2.6	2.9
Program financing	1.7	4.7	1.9	0.1	0.5

Sources: Ministry of Finance, State Oil Fund, Social Protection Fund; and Fund staff estimates.
1/ 2002 estimates include SOCAR tax credit and subsidies to Azerenergy and Azerigas related to quasifiscal activities.

Table 15. Azerbaijan: Social Protection Fund, 1998–2002

	1998	1999	2000	2001	2002
	(In billions of manat)				
Total revenues	943	1,139	1,330	1,344	1,605
Total payroll tax	603	670	806	815	931
Of which: paid by non-budgetary agencies	405	422	522	527	597
Transfer from State Budget	340	462	515	515	630
Others	0	7	9	14	44
Total expenditures	943	1,139	1,330	1,334	1,577
Pensions	528	695	783	774	853
Old age pensioners	473	638	727	714	788
Working pensioners	55	57	56	60	64
Child allowances	9	8	8	6	5.5
Maternity leave	9	9	11	11	11
Sanatorium vouchers	15	15	19	17	19
Sick leave	21	19	28	32	35
Funeral allowances	6	10	9	9	11
Compensation for elimination of communal services	50	38	54	42	85
Other compensations and allowances	290	319	342	341	342
Children under 16	163	169	183	177	169
Pensioners	117	136	142	145	150
War veterans	10	14	17	19	23
Others	15	26	76	102	217
Balance	0	0	0	10	28
	(In percent of GDP)				
Total revenues	5.5	6.0	5.6	5.1	5.4
Total payroll tax	3.5	3.6	3.4	3.0	3.1
Of which: paid by non-budgetary agencies	2.4	2.2	2.2	2.0	2.1
Transfer from State Budget	2.0	2.4	2.2	1.9	2.3
Others	0.0	0.0	0.0	0.1	0.2
Total expenditures	5.5	6.0	5.6	5.0	5.3
Pensions	3.1	3.7	3.3	2.9	3.0
Old age pensioners	2.7	3.4	3.1	2.7	2.8
Working pensioners	0.3	0.3	0.2	0.2	0.2
Child allowances	0.1	0.0	0.0	0.0	0.0
Maternity leave	0.1	0.0	0.0	0.0	0.0
Sanatorium vouchers	0.1	0.1	0.1	0.1	0.1
Sick leave	0.1	0.1	0.1	0.1	0.1
Funeral allowances	0.0	0.1	0.0	0.0	0.0
Compensation for elimination of communal services	0.3	0.2	0.2	0.2	0.4
Other compensations and allowances	1.7	1.7	1.4	1.3	1.2
Children under 16	0.9	0.9	0.8	0.7	0.6
Pensioners	0.7	0.7	0.6	0.5	0.5
War veterans	0.1	0.1	0.1	0.1	0.1
Others	0.1	0.1	0.3	0.4	0.7
Balance	0.0	0.0	0.0	0.0	0.1
Memorandum item:					
Nominal GDP (billions of manat)	17,203	18,875	23,591	26,578	29,602

Sources: Social Protection Fund; and Fund staff estimates.

Table 16. Azerbaijan: Summary Accounts of the Azerbaijan National Bank, 1998-2002
(In billions of manats, end of period stocks)

	1998	1999	2000	2001	2002
Net foreign assets	485	1,158	1,569	2,047	2,158
Net international reserves (convertible)	488	1,161	1,569	2,046	2,163
Gross international reserves (convertible)	1,740	2,945	3,102	3,462	3,527
Foreign liabilities (convertible)	-1,257	-1,783	-1,534	-1,415	-1,190
Other	-4	-4	0	0	-6
Net domestic assets	815	213	199	-248	-108
Domestic credit	916	433	612	210	220
Net claims on general government	162	-317	-90	110	133
Net claims on central government	330	330	452	676	456
Claims on central government	357	493	497	790	723
Deposits of central government	-27	-163	-45	-114	-266
Pre -2000 oil bonus deposits	-168	-646	-541	-566	-323
World Bank counterpart funds	0	0	0	0	0
Claims on banks	750	746	701	101	86
Credit to the economy	4	3	0	0	0
Other items (net)	-100	-220	-413	-458	-328
Reserve money	1,300	1,370	1,767	1,799	2,050
Manat reserve money	1,044	1,263	1,542	1,681	1,866
Currency in circulation	970	1,185	1,420	1,534	1,756
Bank reserves	75	78	122	147	110
Reserves in foreign currencies	83	68	223	111	178
Other deposits	172	39	2	7	6

Source: Azerbaijan National Bank.

Table 17. Azerbaijan: Summary Accounts of the Commercial Banks, 1998-2002
(In billions of manats, end of period stocks)

	1998	1999	2000	2001	2002
Net foreign assets	113	231	54	480	495
Net foreign assets (hard currency)	132	234	52	471	493
Assets	296	419	493	910	1,022
Liabilities	-164	-185	-440	-440	-529
Claims on FSU states	-19	-3	2	9	2
Net domestic assets	674	645	1,200	1,478	1,757
Domestic credit	2,069	2,209	2,319	2,099	2,471
Claims on general government (net)	-88	-39	106	273	340
Claims on central government (net)	-81	-31	149	273	340
Claims on central government	62	103	276	325	366
Deposits of central government	-143	-134	-127	-51	-26
Claims on Social Protection Fund (net)	-7	-8	-42	0	0
Local treasury deposits	0	0	0	1	2
Credit to the economy	2,157	2,248	2,213	1,826	2,131
Reserves	204	178	392	318	366
Cash in national currency	43	49	70	65	88
Reserves at NBA	161	129	321	254	278
Other items, net	-1,599	-1,742	-1,511	-940	-1,080
Deposits in manat and foreign currency	787	875	1,254	1,958	2,252
Deposits in manats	293	290	276	279	352
State enterprises	168	165	124	124	157
Private sector deposits	125	124	152	155	195
Foreign currency deposits (residents)	494	585	978	1,679	1,900

Source: Azerbaijan National Bank.

Table 18. Azerbaijan: Net Bank Credit to the Consolidated Government, 1998-2002
(In billions of manats, end of period stocks)

	1998	1999	2000	2001	2002
Central Bank					
Net claims on general government	162	-317	-90	110	133
Net claims on central government	330	330	452	676	456
Claims on central government	357	493	497	790	723
Deposits of central government	-27	-163	-45	-114	-266
Pre-2000 Oil signature bonus	-168	-646	-541	-566	-323
World Bank counterpart funds	0	0	0	0	0
Commercial banks					
Net claims on general government	-88	-39	106	273	340
Net claims on central government	-81	-31	149	273	340
Claims on central government	62	103	276	325	366
Deposits of central government	-143	-134	-127	-51	-26
Claims on Social Protection Fund (net)	-6	-8	-42	0	0
Local treasury deposits	0	0	0	0	1
Total banking system					
Net claims on general government	74	-356	17	383	473
Net claims on central government	248	299	601	949	796
Claims on social protection fund (net)	-6	-8	-42	0	0
Other	-168	-646	-541	-566	-323

Source: Azerbaijan National Bank.

Table 19. Azerbaijan: Monetary Survey, 1998-2002

	1998	1999	2000	2001	2002
(In billions of manats, end of period stocks)					
Net foreign assets	598	1,388	1,623	2,527	2,653
Net international reserves of the ANB (convertible)	488	1,161	1,569	2,046	2,163
Net foreign assets of commercial banks (convertible)	132	234	52	471	493
Other	-22	-7	2	9	-4
Net domestic assets	1,288	662	983	907	1,273
Domestic credit	2,235	1,896	2,229	2,209	2,605
Net claims on general government	74	-356	17	383	473
Net claims on central government	248	299	601	949	796
Pre-2000 oil bonus deposits	-168	-646	-541	-566	-323
Other claims (net)	-7	-8	-42	0	0
Credit to the economy	2,161	2,252	2,213	1,826	2,132
Other items (net)	-947	-1,234	-1,247	-1,302	-1,331
Broad money	1,886	2,050	2,606	3,434	3,926
Manat broad money	1,391	1,465	1,628	1,755	2,026
Currency outside banks	926	1,136	1,350	1,469	1,669
Manat deposits	465	329	278	286	358
Foreign currency deposits	494	585	978	1,679	1,900
(Changes in percent of beginning of the period money stock, unless otherwise specified)					
Net foreign assets	-31.0	41.9	11.5	34.7	3.7
Net domestic assets	22.4	-33.2	15.6	-2.9	10.7
Domestic credit	12.5	-18.0	16.3	-0.8	11.5
Credit to the economy	6.3	4.8	-1.9	-14.8	8.9
Credit to the economy (annual change)	6.4	4.2	-1.7	-17.5	16.7
Broad money (percentage change)	-8.6	8.7	27.1	31.8	14.3
Average broad money (percentage change)	9.4	-0.3	12.9	24.6	24.8
Manat broad money (percentage change)	-10.6	5.3	11.1	7.8	15.5
Currency as a ratio to broad money	49.1	55.4	51.8	42.8	42.5
Manat deposits as a ratio to broad money	24.7	16.1	10.7	8.3	9.1
Foreign currency deposits as a ratio to broad money	26.2	28.5	37.5	48.9	48.4
Memorandum Items:					
Gross international official reserves (US$ millions)	447	673	680	725	721
Net international official reserves (US$ millions)	126	265	344	429	442
Exchange rate (Manat/US dollar, end of period)	3,890	4,378	4,565	4,775	4,893
Exchange rate (Manat/US dollar, period average)	3,869	4,120	4,474	4,657	4,834
Velocity of manat broad money 1/	11.7	13.2	16.2	16.9	16.4
Money multiplier	1.5	1.5	1.5	1.9	1.9

Sources: Azerbaijan National Bank.

1/ Velocity is defined as nominal GDP divided by average manat broad money.

Table 20. Azerbaijan: Credit and Deposit Interest Rates, 1998–2002
(In percent per year)

	Average Interbank Credit Rates, Baku										Average bank deposit rates for customers (3 month)		ANB refinance rate	Credit auction interest rate	Treasury bill rate		
	7 days		30 days		90 days		180 days		90 days			US			1 month	3 month	6 month
	manats		manats		manats		manats		US dollars		manats	dollars	(6 month)	(6 month)			
	IBOR 1/	IOUCR 2/	IBOR 1/	IOUCR 2/	IBOR 1/	IOUCR 2/	IBOR 1/	IOUCR 2/	IBOR 1/	IOUCR 2/							
1998 Jan.	18.3	12.5	22.2	15.8	22.2	17.4	20.9	17.7	18.5	14.9	9.5	9.0	12.0	12.5	-	12.0	-
Feb.	18.5	12.8	21.4	16.4	22.3	16.5	21.0	16.8	20.0	16.1	10.0	9.3	12.0	13.0	-	-	-
Mar.	18.5	14.8	22.2	16.5	24.5	18.1	22.6	18.3	19.5	15.8	10.7	9.8	12.0	13.0	-	12.0	-
Apr.	18.5	12.8	23.8	15.8	24.8	17.6	23.2	18.8	19.1	15.6	10.6	9.8	12.0	14.0	13.9	-	-
May.	18.5	12.8	23.8	15.8	24.8	17.6	23.2	18.8	19.1	15.6	10.6	9.8	12.0	14.0	-	-	-
Jun.	24.3	17.0	22.8	15.0	24.5	17.3	23.7	18.9	21.7	15.9	9.9	9.2	12.0	14.0	-	-	-
Jul.	17.0	11.0	25.3	16.2	25.8	18.9	25.9	20.6	24.3	17.7	10.2	9.5	14.0	14.0	-	-	-
Aug.	17.0	11.0	25.2	17.1	25.7	19.0	25.8	20.5	24.4	18.5	10.1	9.9	14.0	14.0	-	15.2	-
Sep.	-	-	26.5	19.4	25.8	19.0	25.8	20.4	24.9	18.0	11.7	10.5	14.0	14.0	14.8	-	-
Oct.	-	-	25.3	18.6	25.1	19.5	24.3	19.4	24.4	18.8	11.4	10.2	14.0	14.0	15.0	-	-
Nov.	-	-	25.3	19.3	24.3	18.7	21.9	18.9	25.3	18.5	11.9	10.6	14.0	14.0	14.7	15.4	-
Dec.	15.0	15.0	23.8	17.8	23.2	17.6	21.5	17.6	25.0	18.4	11.9	10.6	14.0	14.0	-	14.8	-
1999 Jan.	15.0	15.0	25.3	17.9	25.2	19.2	23.4	19.3	26.4	19.6	12.8	11.2	14.0	14.0	-	-	-
Feb.	15.0	15.0	25.3	17.9	25.2	18.7	22.6	18.7	25.7	19.3	12.6	11.1	14.0	14.0	-	16.1	-
Mar.	15.0	15.0	25.3	16.9	25.2	19.1	22.6	18.6	25.1	19.1	12.5	11.0	14.0	14.0	-	15.2	-
Apr.	15.0	15.0	22.8	16.1	25.2	19.1	22.3	18.3	25.1	19.7	11.7	10.5	14.0	14.0	-	-	-
May.	15.0	14.5	25.3	17.9	23.6	18.0	21.0	17.4	23.9	18.6	11.8	10.6	14.0	14.0	-	19.6	-
Jun.	15.0	15.0	21.3	14.2	21.8	17.5	20.8	17.4	22.8	17.9	12.1	10.8	14.0	14.0	-	19.6	-
Jul.	15.0	15.0	21.3	15.6	21.6	16.7	21.4	17.0	23.9	18.0	12.1	10.1	14.0	14.0	-	-	-
Aug.	15.0	15.5	22.3	15.5	22.0	17.4	21.3	17.0	23.7	18.6	12.0	10.0	14.0	14.0	-	21.4	-
Sep.	21.0	16.7	22.0	15.3	22.1	17.7	22.1	17.6	25.2	19.1	12.3	10.2	14.0	14.0	-	-	-
Oct.	21.0	16.7	22.0	15.3	22.1	17.7	22.1	17.6	25.2	19.1	12.3	10.2	14.0	14.0	-	-	-
Nov.	17.0	17.0	17.0	10.4	20.2	15.6	19.6	15.5	24.5	18.2	12.3	10.2	10.0	10.0	-	17.7	-
Dec.	17.0	17.0	17.0	9.1	20.5	14.6	20.0	15.0	24.3	17.8	11.8	9.9	10.0	10.0	17.1	-	-
2000 Jan.	17.0	17.0	20.5	13.9	21.0	15.7	21.0	15.8	23.2	17.5	12.1	10.1	10.0	10.0	-	-	-
Feb.	17.0	17.0	23.7	15.4	21.3	16.0	21.2	16.5	24.0	17.8	13.5	10.8	10.0	10.0	-	-	-
Mar.	17.0	18.5	20.5	15.2	21.3	16.4	19.9	15.9	22.5	17.5	13.6	10.8	10.0	10.0	-	16.8	-
Apr.	17.0	12.5	20.5	13.8	21.5	15.9	19.9	15.6	22.8	17.1	13.6	10.8	10.0	10.0	-	-	-
May.	17.0	16.3	21.0	16.4	22.2	17.8	19.8	15.4	23.3	18.5	12.7	10.4	10.0	10.0	-	16.4	-
Jun.	17.0	20.5	21.0	16.4	22.2	17.3	20.2	15.8	22.7	18.0	12.7	11.6	10.0	10.0	-	16.8	-
Jul.	17.0	20.5	22.5	17.6	22.8	18.4	21.0	16.3	23.4	18.2	12.7	10.9	10.0	10.0	-	-	-
Aug.	17.0	20.5	22.5	16.5	22.8	17.8	21.6	16.9	23.4	18.3	12.1	10.2	10.0	10.0	-	17.0	-
Sep.	17.0	20.5	17.0	12.3	20.5	16.1	19.7	16.0	21.8	17.0	12.4	10.4	10.0	10.0	-	16.9	-
Oct.	17.0	16.3	17.0	12.3	22.2	17.6	20.9	17.0	22.8	17.9	12.7	10.8	10.0	10.0	-	-	-
Nov.	17.0	16.3	17.0	14.1	22.2	18.1	20.9	16.6	22.8	18.2	12.2	10.4	10.0	10.0	-	17.1	-
Dec.	17.0	20.5	17.0	14.1	20.3	16.5	22.0	16.4	21.8	17.4	12.2	10.9	10.0	10.0	-	-	-
2001 Jan.	17.0	17.0	14.5	13.1	18.3	14.9	22.0	16.4	21.1	16.8	11.9	10.4	10.0	10.0	-	16.5	-
Feb.	17.0	17.0	17.0	14.8	19.4	16.0	22.4	17.2	21.8	17.6	11.7	10.6	10.0	10.0	-	15.4	-
Mar.	17.0	17.0	17.0	15.5	19.2	16.3	22.4	16.9	21.8	17.7	11.5	10.3	10.0	10.0	-	16.2	-
Apr.	17.0	17.0	17.0	15.5	19.2	15.8	22.0	17.0	21.6	17.6	11.3	10.1	10.0	10.0	-	16.1	-
May.	17.0	20.5	17.0	14.8	19.2	15.8	22.0	17.2	21.6	17.5	11.6	10.3	10.0	10.0	-	15.9	-
Jun.	17.0	20.5	17.0	14.8	19.2	15.8	22.0	17.0	21.3	17.2	11.6	10.3	10.0	10.0	-	16.7	-
Jul.	17.0	20.5	18.3	15.6	19.8	16.6	22.3	16.6	21.6	17.5	11.7	10.5	10.0	10.0	-	17.2	-
Aug.	17.0	20.5	18.3	15.6	19.8	16.6	22.3	16.9	21.6	17.6	11.7	10.5	10.0	10.0	-	17.2	15.1
Sep.	17.0	17.0	18.3	15.6	19.8	16.6	22.2	16.9	21.6	17.6	11.7	10.5	10.0	10.0	-	-	16.8
Oct.	17.0	17.0	18.3	14.9	19.8	16.2	22.8	16.8	21.8	17.8	11.5	10.5	10.0	10.0	-	-	16.9
Nov.	17.0	17.0	18.3	15.6	19.8	16.2	22.8	16.4	21.8	17.4	12.0	10.9	10.0	10.0	-	-	16.9
Dec.	17.0	18.3	18.3	14.7	19.8	15.6	21.0	15.4	21.8	17.2	12.0	10.9	10.0	10.0	-	-	17.0
2002 Jan.	17.0	20.5	18.3	14.2	19.8	16.0	21.0	15.4	21.8	17.5	12.0	10.9	10.0	10.0	-	-	15.0
Feb.	17.0	17.0	17.0	14.5	20.0	16.3	21.2	15.9	21.9	17.7	11.7	10.7	10.0	10.0	-	-	15.8
Mar.	17.0	17.0	17.0	14.0	20.0	16.0	21.2	15.6	21.9	17.4	11.7	10.7	10.0	10.0	-	-	15.8
Apr.	17.0	17.0	17.0	14.0	20.0	16.0	21.2	15.6	21.0	17.9	11.1	10.1	10.0	10.0	-	-	15.8
May.	17.0	17.0	17.0	14.0	20.0	16.0	21.2	15.3	21.0	17.9	11.1	10.1	10.0	10.0	-	-	15.3
Jun.	15.0	13.3	16.8	12.7	19.0	14.0	21.0	14.4	20.7	16.4	9.5	8.6	7.0	7.0	-	-	15.4
Jul.	15.0	15.0	16.5	12.8	19.0	13.9	20.5	14.0	20.7	16.4	8.8	8.1	7.0	7.0	-	-	14.8
Aug.	15.0	15.0	16.5	12.8	19.0	13.9	20.5	14.0	20.7	16.4	8.8	8.1	7.0	7.0	-	-	13.8
Sep.	13.0	10.0	16.3	14.2	19.7	13.4	22.3	13.7	21.7	18.1	8.2	7.4	7.0	7.0	-	-	12.0
Oct.	13.0	11.5	16.3	13.1	19.7	13.4	22.3	14.2	21.7	18.1	8.2	7.4	7.0	7.0	-	-	11.9
Nov.	13.0	11.5	16.0	13.4	19.7	12.8	22.5	13.8	22.8	18.1	9.0	8.0	7.0	7.0	-	-	11.9
Dec.	13.0	13.0	16.0	13.0	19.7	12.8	22.5	13.9	22.8	18.2	8.8	7.7	7.0	7.0	-	10.0	11.9

Source: Baku Interbank Currency Exchange.
1/ IBOR: Interbank offer rate.
2/ IOUCR: Interbank often used credit rate.

Table 21. Azerbaijan: Exchange Rates, 1998–2002
(Manat per US dollar)

		Period average	Percentage change	End of period	Percentage change
1998	QI	3,884	-0.5	3,868	-0.5
	QII	3,861	-0.6	3,861	-0.2
	QIII	3,862	0.0	3,857	-0.1
	QIV	3,868	0.2	3,890	0.9
	Year	3,869	-2.9	3,890	0.1
1999	QI	3,910	1.1	3,929	1.0
	QII	3,958	1.2	3,975	1.2
	QIII	4,259	7.6	4,320	8.7
	QIV	4,376	2.7	4,378	1.3
	Year	4,126	6.6	4,378	12.5
2000	QI	4,393	0.4	4,413	0.8
	QII	4,445	1.2	4,476	1.4
	QIII	4,502	1.3	4,527	1.1
	QIV	4,546	1.0	4,565	0.8
	Year	4,472	8.4	4,565	4.3
2001	QI	4,586	0.9	4,606	0.9
	QII	4,627	0.9	4,648	0.9
	QIII	4,671	1.0	4,693	1.0
	QIV	4,734	1.3	4,775	1.7
	Year	4,655	4.1	4,775	4.6
2002	QI	4,807	1.5	4,825	1.0
	QII	4,851	0.9	4,870	0.9
	QIII	4,891	0.8	4,897	0.6
	QIV	4,895	0.1	4,893	-0.1
	Year	4,861	4.4	4,893	2.5

Source: Azerbaijan National Bank; and Fund staff calculations.

Table 22. Azerbaijan: Balance of Payments, 1998-2002

(In millions of US dollars)

	1998	1999	2000	2001	2002 1/
Exports, f.o.b.	678	1,025	1,799	2,046	2,305
Of which: oil and other products	450	801	1,519	1,841	2,046
other	228	224	279	205	259
Imports, f.o.b.	-1,724	-1,433	-1,539	-1,465	-1,823
Of which: oil sector	-356	-195	-147	-138	-336
other	-1,368	-1,239	-1,393	-1,327	-1,487
Trade balance	-1,046	-408	260	581	482
Services (net)	-369	-228	-225	-375	-936
Exports	332	257	260	290	362
Imports	-701	-485	-485	-665	-1,298
Of which: oil sector	-246	-189	-154	-329	-868
Income	-13	-45	-295	-332	-386
Investment income (net)	30	9	-222	-256	-326
o/w profit of oil consortium	0	-23	-278	-291	-344
Compensation of employees	-30	-32	-47	-47	-39
Interest on public debt (including Fund)	-13	-22	-26	-29	-20
Transfers (net)	64	82	73	77	70
Private	0	25	11	13	15
Public	64	56	62	64	55
Current account balance	-1,364	-600	-187	-50	-769
Net direct investment	1,023	510	149	299	1,048
Oil companies	831	349	14	197	984
contracted (net)	889	527	454	732	1,613
capital repatriation	-133	-333	-541	-542	-629
bonus	75	155	101	7	0
Other (net)	191	161	135	101	64
Public sector capital	58	215	239	140	167
Medium Long-term borrowing	79	228	257	185	216
Budget support	0	42	0	0	30
Other long-term loans	79	186	257	185	185
Scheduled amortization	-21	-14	-18	-45	-48
Other (including short term capital)	232	18	102	-19	-135
Capital account balance	1,313	743	490	420	1,080
Errors and omissions	-10	9	-21	-48	-75
Overall balance	-61	152	282	322	236
Financing	61	-152	-282	-322	-236
Change in net foreign assets of NBA (increase -)	61	-130	-59	-74	-35
Net credit from the Fund	41	94	-52	-29	-39
Disbursements/purchases	41	110	0	10	10
Repayments/repurchases	0	-16	-52	-39	-49
Change in gross official reserves (increase -)	20	-224	-7	-45	4
Change in other foreign liabilities (increase +)	0	0	0	0	0
Change in arrears (decrease -)	0	0	0	0.2	-0.2
Change in oil fund assets (- increase)	0	-25	-248	-221	-201
Adjustment (Oil Fund required reserves) 2/	0	2	25	-27	0

Source: Azerbaijan National Bank and Fund staff estimates.

1/ Preliminary estimate.

2/ This corrects for the required reserves held at the ANB against the deposits of the Oil Fund, prior to 2001when the Oil Fund's resources were transferred to the ANB from a commercial bank.

Table 23. Registered Foreign Trade, 1998–2002 1/
(In millions of US dollars)

	1998	1999	2000	2001	2002 2/
Exports	678	1,025	1,799	2,046	2,305
Food	47	60	57	55	68
Cotton	49	22	37	15	23
Oil and oil products	450	801	1,519	1,841	2,046
Metals	13	25	32	19	22
Chemicals and petrochemicals 3/	11	23	36	36	59
Machinery and equipment	38	38	34	64	44
Other	70	56	84	16	43
Imports 4/	1,077	1,036	1,172	1,465	1,823
Food	176	210	223	340	351
Natural gas	--	--	--	180	212
Metals	130	111	123	105	227
Chemicals and petrochemicals 3/	79	58	84	64	50
Machinery and equipment	372	362	399	347	415
Other	320	295	343	429	568

Source: Azerbaijan National Bank, Azerbaijan State Statistics Committee and staff estimates.
1/ Import figures for 1998-2000 are based on customs data and are provided by the State Statistics Committee. Import figures for 1998-2000 differ from Table 22 which is based on central bank data and includes shuttle trade. Also, the 2000 import figure does not include the import of two Boeings (valued at US$130 million) as this import was not reflected in customs data of 2000 (but is included in customs data for October 2001). However, the import of these two aircrafts are included in the central bank import data for 2000. Import figures for 2001 and 2002 are based on data provided by the Azerbaijan National Bank.
2/ Preliminary estimate.
3/ Including pharmaceutical products.
4/ Do not include data on shuttle trade for 1998-2000.

Table 24. Azerbaijan: Balance of Services and Transfers, 1998-2002
(In millions of US dollars)

	1998	1999	2000	2001	2002 1/
Services and Income					
Services and Income	-382	-273	-520	-707	-1,321
Credit	370	291	316	331	399
Debit	752	564	836	1,039	1,720
Nonfactor services	-369	-228	-225	-375	-936
Credit	332	257	260	290	362
Freight	90	90	88	126	173
Other transportation	39	24	31	36	39
Travel	125	81	63	43	51
Other	78	62	77	86	99
Debit	701	485	485	665	1,298
Freight	150	39	101	118	132
Other transportation	44	0	43	38	41
Travel	170	139	132	109	105
Government of Azerbaijan (net)	9	9	9	15	15
Private services	82	80	49	58	146
Oil services	246	189	154	329	868
Factor services	-13	-45	-295	-332	-386
Credit	38	34	56	41	37
Investment income	32	34	49	39	35
Other	6	0	7	3	2
Debit	52	79	351	374	423
Investment income	21	47	304	326	384
Interest on public debt	13	22	26	29	20
IMF	10	12	14	10	5
Other	3	11	12	19	15
Profit repatriation of oil consortium	0	23	278	291	344
Other investment	8.0	2.2	...	...	...
Compensation of employees	30	32	47	47	39
Transfers (net)	64	82	73	77	70
Credit	145	135	135	176	228
Debit	81	53	62	100	158
Private	0	25	11	13	15
Credit	76	71	69	110	168
Remittances	75	54	57	104	163
Other	2	17	12	6	4
Debit	76	46	59	97	153
Public	64	56	62	64	55
Credit	69	63	66	66	60
Current grants for budgetary support	21	22	17	18	18
Nonbudgetary current grants	48	41	48	48	43
Humanitarian aid	48	41	48	48	43
Debit (including subscription fees)	5	7	3	3	5

Source: Azerbaijan National Bank; and staff estimates.
1/ Preliminary estimate.

Table 25. Azerbaijan: Foreign Assistance, 1998-2002

	1998	1999	2000	2001	2002 1/
	(In millions of US dollars)				
A. Total Aid					
Total	147.7	291.6	322.5	251.3	275.9
Multilateral	131.1	277.8	306.4	235.3	261.7
Bilateral	16.6	13.8	16.1	16.1	14.3
Loans	79.0	228.2	256.8	185.1	215.5
Multilateral	79.0	228.2	256.8	185.1	215.5
Bilateral	0.0	0.0	0.0	0.0	0.0
Grants	68.7	63.4	65.7	66.3	60.4
Multilateral	52.1	49.6	49.6	50.2	46.2
Bilateral	16.6	13.8	16.1	16.1	14.3
B. Loans					
Total	79.0	228.2	256.8	185.1	215.5
BOP support	0.0	42.0	0.0	0.0	30.3
Projects (sources of financing)	79.0	186.2	256.8	185.1	185.2
Turkish Eximbank	0.0	1.9	0.0	0.0	0.0
World Bank	22.4	23.9	26.7	28.5	27.1
EBRD	22.0	24.8	13.3	9.6	10.7
KFW	9.9	14.6	4.9	0.5	2.8
IFAD	0.7	1.8	1.5	2.2	0.7
Other	24.0	119.2	210.4	144.3	144.0
BOP support	0.0	42.0	0.0	0.0	30.3
World Bank	0.0	42.0	0.0	0.0	30.3
C. Grants					
Total	68.7	63.4	65.7	66.3	60.4
BOP support (budgetary)	21.0	22.0	17.4	18.1	17.7
Off budget	47.7	41.4	48.3	48.2	42.8
Total	68.7	63.4	65.7	66.3	60.4
EU	19.0	22.0	17.4	18.1	17.7
Other	49.7	41.4	48.3	48.2	42.8

Source: Ministry of Finance; and Fund staff estimates.
1/ Preliminary estimate.

Table 26. Direction of Registered Foreign Trade, 1998–2002 1/

	1998	1999	2000	2001	2002 2/
			(In millions of US dollars)		
Exports	678	1,025	1,799	2,046	1,630
C.I.S.	233	211	235	224	161
Georgia	77	72	75	103	55
Kazakhstan	11	4	7	7	10
Russia	106	83	98	78	58
Ukraine	12	24	24	7	8
Other countries	27	28	31	29	30
Non-CIS	445	814	1,564	1,822	1,469
Iran	44	23	8	9	20
Turkey	136	69	105	67	75
United Kingdom	40	11	19	36	7
Other countries	225	711	1,432	1,710	1,367
Imports	1,077	1,036	1,172	1,465	1,260
C.I.S.	405	325	376	443	472
Georgia	25	9	10	4	6
Kazakhstan	44	25	58	83	96
Russia	194	226	249	183	213
Turkmenistan	26	13	10	125	106
Ukraine	93	38	36	34	47
Other countries	23	14	13	14	4
Non-CIS	672	710	796	1,022	788
Iran	43	47	57	209	127
Turkey	220	143	129	179	152
United Arab Emirates	46	12	20	37	26
United Kingdom	69	67	59	46	46
Other countries	294	441	531	551	437
			(in percent of total)		
Exports	100.0	100.0	100.0	100.0	100.0
C.I.S.	34.4	20.6	13.1	10.8	10.2
Georgia	11.4	7.0	4.2	5.0	3.5
Kazakhstan	1.6	0.4	0.4	0.3	0.6
Russia	15.6	8.1	5.4	3.8	3.7
Ukraine	1.8	2.3	1.3	0.3	0.5
Other countries	4.0	2.7	1.7	1.4	1.9
Non-CIS	65.6	79.4	86.9	89.2	89.7
Iran	6.5	2.2	0.4	0.4	1.3
Turkey	20.1	6.7	5.8	3.2	4.8
United Kingdom	5.9	1.1	1.1	1.7	0.4
Other countries	33.2	69.4	79.6	83.9	83.2
Imports	100.0	100.0	100.0	100.0	100.0
C.I.S.	37.6	31.4	32.1	30.2	37.5
Georgia	2.3	0.9	0.9	0.3	0.5
Kazakhstan	4.1	2.4	4.9	5.7	7.6
Russia	18.0	21.8	21.2	12.5	16.9
Turkmenistan	2.4	1.3	0.9	8.5	8.4
Ukraine	8.6	3.7	3.1	2.3	3.7
Other countries	2.1	1.4	1.1	0.9	0.4
Non-CIS	62.4	68.5	67.9	69.8	62.5
Iran	4.0	4.5	4.9	14.3	10.0
Turkey	20.4	13.8	11.0	12.2	12.1
United Arab Emirates	4.3	1.2	1.7	2.5	2.1
Other countries	27.3	42.6	45.3	40.8	38.3

Source: Azerbaijan National Bank, Azerbaijan State Statistics Committee and Fund staff estimates.
1/ Import figures for 1998-2000 are based on customs data and are provided by the State Statistics Committee. Import figures for 1998-2000 differ from Table 22 which is based on central bank data and includes shuttle trade. Also, the 2000 import figure does not include the import of two Boeings (valued at US$130 million) as this import was not reflected in customs data of 2000 (but is included in customs data for October 2001). However, the import of these two aircrafts are included in the central bank import data for 2000.
Import figures for 2001 and 2002 are based on data provided by the Azerbaijan National Bank.
2/ Data for the first nine months.

Table 27. Quasi-fiscal Activities (QFA) and Consolidated Government Operations 2001–2002 1/

	2001		2002	
	cash basis	Incl. QFA int. prices 2/	cash basis	Incl. QFA int. prices 2/
	(In billions of manat)			
Total revenue and grants	5,714	7,399	6,673	8,276
Tax revenue	3,891	5,576	4,575	6,178
Nontax revenue	1,795	1,795	2,041	2,041
Grants	28	28	57	57
Total expenditure	5,403	7,088	6,781	8,384
Current expenditure	4,459	6,144	5,087	6,690
Investment and net lending	943	943	1,694	1,694
Consolidated government deficit, cash basis	247	247	141	141
Statistical discrepancy	-64	-64	33	33
	(In percent of GDP)			
Total revenue and grants	21.5	27.8	22.5	28.0
Tax revenue	14.6	21.0	15.5	20.9
Nontax revenue	6.8	6.8	6.9	6.9
Grants	0.1	0.1	0.2	0.2
Total expenditure	20.3	26.7	22.9	28.3
Current expenditure	16.8	23.1	17.2	22.6
Investment and net lending	3.5	3.5	5.7	5.7
Consolidated government deficit, cash basis	0.9	0.9	0.5	0.5
Statistical discrepancy	-0.2	-0.2	0.1	0.1
Memorandum item:				
Nominal GDP (In billions of manat)	26,578	26,578	29,602	29,602

Source: Staff estimates and Azeri authorities

1/ Value of QFA corresponds to the value of unpaid deliveries by SOCAR of mazut and natural gas to Azerenergy and Azerigas.

2/ Evaluated at average export price for Mazut and actual import price for natural gas, which differ from domestic prices.

Table 28. Azerbaijan: Energy Balance, 1998–2002

	1998	1999	2000	2001	2002
Oil and oil products		(In millions of barrels)			
Production	83.4	100.8	102.2	144.3	150.8
Net volume of trade	30.0	47.4	55.0	76.7	85.6
Exports	32.1	49.1	55.4	76.7	85.6
of which: crude oil	15.7	31.2	40.6	60.5	64.9
Imports	-2.1	-1.7	-0.4	0.0	0.0
Domestic consumption	53.4	53.4	47.2	67.6	65.2
Changes in stocks	2.3	-0.6	-1.0	0.2	0.1
Natural gas		(In billions of cubic meters)			
Production (excluding losses) 1/	5.6	6.0	5.6	4.5	4.3
Net volume of trade	0.0	0.0	0.0	-3.5	-3.9
Exports	0.0	0.0	0.0	0.0	0.0
Imports	0.0	0.0	0.0	-3.5	-3.9
Domestic consumption	5.6	6.0	5.6	8.0	8.2
Changes in stocks	0.0	0.0	0.0	-0.5	0.1

Source: Ministry of Economic Development, the State Statistics Committee; and Fund staff estimetes.

1/ Production excludes vented gas.

Table 29. Azerbaijan: Collection Rates of Azerigaz for Gas Supplied to Various Consumers, 1998-2002 1/

	Quantity (million cbm)	Value (in mln Manat)	Actual Payments Received (in mln Manat)	Collection Rate (In percent)
1998 Total supplied gas	4,026.9	488,893.2	201,463.0	41.2
Population	1,425.4	50,687.2	24,481.0	48.3
Budgetary organizations	834.7	90,233.6	3,940.0	4.4
Industry	343.7	82,431.0	65,709.0	79.9
JSC "Azerenergy"	1,292.7	255,954.4	106,854.0	42.4
SOCAR	130.4	9,587.0	479.0	5.6
1999 Total supplied gas	4,273.4	517,080.1	203,809.0	39.4
Population	1,637.5	58,230.0	26,200.0	45.0
Budgetary organizations	819.5	88,557.9	86,780.0	98.0
Industry	415.3	109,495.4	58,709.0	53.6
JSC "Azerenergy"	1,267.6	250,984.8	31,600.0	12.6
SOCAR	133.5	9,812.0	520.0	5.3
2000 Total supplied gas	4,165.2	431,581.1	97,781.2	22.7
Population	1,701.6	39,819.3	18,731.7	47.0
Budgetary organizations	741.4	42,957.5	12,425.1	28.9
Industry	446.5	104,758.3	61,345.6	58.6
JSC "Azerenergy"	1,160.2	230,330.0	4,676.0	2.0
SOCAR	115.5	13,716.0	602.8	4.4
2001 Total supplied gas	3,905.9	399,798.5	120,282.7	30.0
Population	2,024.0	75,827.4	24,111.6	31.8
Budgetary organizations	570.3	62,710.1	13,029.5	20.8
Industry	490.8	106,146.7	60,588.2	57.1
JSC "Azerenergy"	771.2	150,152.6	1,360.0	1.0
SOCAR	49.6	4,961.7	21,193.4	427.1
2002 Total supplied gas 2/	3,216.2	232,333.3	118,087.9	50.8
Population	2,397.1	85,196.7	43,218.9	50.7
Industry	637.5	97,087.6	69,781.1	71.9
JSC "Azerenergy"	134.3	26,250.7	3,903.8	14.9
SOCAR	47.3	23,798.3	1,184.1	5.0

Source: Azerigaz

1/ Preliminary estimate for 2002.

2/ Excluding budgetary organizations on which final data are not available.

Table 30. Azerbaijan: Collection Rates of Azerenergy for Electricity Supplied to Various Consumers, 1998-2002 1/

	Quantity (million kwh)	Value (in mln Manat)	Actual Payments Received (in mln Manat)	Collection Rate (In percent)
1998 Total supplied electricity	14,262.9	1,780.1	605.3	34.0
Population	7,480.5	394.1	115.6	29.3
Budgetary organizations	1,639.1	397.3	32.5	11.3
State Owned Enterprises	540.7	103.8	20.8	19.0
Industry	3,614.6	694.0	392.6	51.7
Other consumers	988.0	190.9	43.8	24.2
1999 Total supplied electricity	15,002.1	1,612.1	554.1	34.4
Population	9,229.3	461.5	97.5	20.0
Budgetary organizations	1,006.8	318.4	77.9	41.2
State Owned Enterprises	783.2	150.3	21.1	11.1
Industry	3,202.8	614.9	350.2	57.8
Other consumers	780.0	67.0	8.1	5.7
2000 Total supplied electricity	15,607.5	1,533.3	244.7	15.9
Population	9,963.3	518.1	68.4	13.2
Budgetary organizations	1,039.7	172.3	61.5	35.7
State Owned Enterprises	787.7	203.0	12.7	6.2
Industry	2,856.8	497.9	87.2	17.5
Other consumers	960.0	142.0	14.9	10.5
2001 Total supplied electricity 2/	16,161.7	1,365.7	474.0	34.7
Population	10,232.0	532.0	98.4	18.5
Budgetary organizations	1,084.7	163.4	54.8	33.5
State Owned Enterprises	784.6	213.7	35.3	15.4
Industry	2,976.4	456.6	285.5	62.5
Other consumers 3/	1,084.0	...	...	...
2002 Total supplied electricity 4/	17,053.7	1,587.8	488.7	30.8
Population	10,540.3	1,007.4	139.2	13.8
State Owned Enterprises	641.1	135.4	107.8	79.6
Industry	2,942.7	445.0	241.7	54.3
Other consumers 3/	2,929.6	...	...	...

Source: Azerenergy

1/ Preliminary estimate for 2002.

2/ Starting from the second half of 2001, Azerenergy no longer distributes electricity directly to end-users. Instead, it supplies electricity to four distribution network companies, which in turn distribute electricity to end users.

3/ Data are not available.

4/ Excluding budgetary organizations on which final data are not available.