The Low-Income Countries of the Commonwealth of Independent States

Progress and Challenges in Transition

Edited by
Clinton R. Shiells and Sarosh Sattar

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Preface

The CIS-7 Initiative was launched at a conference in London in February 2002, and endorsed by ministers from the CIS-7 and donor countries in Washington in April, with the objective of promoting poverty reduction, economic growth, and debt sustainability among the low-income countries of the Commonwealth of Independent States (CIS)—Armenia, Azerbaijan, Georgia, the Kyrgyz Republic, Moldova, Tajikistan, and Uzbekistan. The Initiative was supported by the Asian Development Bank, the European Bank for Reconstruction and Development, the International Monetary Fund, and the World Bank. It aimed to draw greater international attention to the development challenges faced by the CIS-7. Governments of the CIS-7, the international financial institutions, and bilateral donors all agreed that, though much had been accomplished during the first decade of transition, the agenda for reform still remained substantial. Also, it was clear that although the countries differed in many respects they faced similar economic development challenges.

A follow-up conference—Low-Income Countries of the CIS: Progress and Challenges—was convened in Lucerne, Switzerland, January 20–22, 2003. The objective was to achieve an understanding of the remaining development agenda in the CIS-7 countries and the key policy measures that could be taken by the governments and donors to improve future prospects of the countries’ populations. It also provided an opportunity to broaden the debate by bringing together a larger and more diverse group of participants. Country delegations included officials from the key economic ministries and civil society, parliamentarians, academicians, and members of nongovernmental organizations (NGOs). In addition to the representatives of the international financial institutions, there were many participants from bilateral donors and international NGOs. Speakers, including those who presented papers at the conference, were not only staff from the international financial institutions but also academicians.

This volume is the record of the Lucerne conference. The first chapter provides a summary of the major findings and key themes emerging from the conference. The remaining papers highlight the presentations made at each session of the conference. Although space constraints made it difficult to include all 21 papers in this volume, all the conference papers have been posted on the Initiative’s website (www.cis7.org). The views expressed in this volume are those of individual authors and are not necessarily those of the institutions with which they are affiliated.

The conference and this volume are products of many persons in addition to the authors. Special thanks are extended to Johannes Linn (World Bank) and John Odling-Smee (IMF), who played key roles in launching and supporting the CIS-7 Initiative; to Cheryl Gray, Samuel Otoo, and Jakob von Weizsacker (all World Bank) and Paulo Neuhaus and David O. Robinson (both IMF) for organizing the conference; to the Swiss Government for its generous hospitality and sup-
port; and to the Dutch Government for its assistance. In addition to the editors, the authors are grateful to Gail Berre of the IMF External Relations Department for her assistance in the editing and production of this volume and also to Meta de Coquereaumont, Paul Dyer, Jeren Kabaeva, Paul Mathieu, and Bruce Ross-Larson for their invaluable assistance during the editing process.

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Overview
Samuel Otoo, Sarosh Sattar, and Ekaterine Vashakmadze*

Introduction
After the breakup of the Soviet Union, the CIS-7 faced exceptional challenges in building new states, democratic institutions, and market economies. All of the CIS-7 started from a situation of complex dependency on the Soviet Union, including massive transfers and subsidies and the trade arrangements of the Council for Mutual Economic Assistance (CMEA). The shocks associated with the breakup—notably the disruption of economic relations with established regional partners, termination of large fiscal transfers, and severe energy price adjustments—compounded the problems of severe structural rigidities and weak institutions.

Creating new states and achieving macroeconomic stabilization have been major successes of the reforms in the CIS-7, while building democratic societies, achieving fiscal and external adjustments, and implementing structural changes have proved to be more challenging. The international community provided substantial assistance to the CIS-7 during the 1990s—assistance that helped keep living standards from falling catastrophically. However, the debt-servicing capacity of many of the CIS-7 did not improve to the extent envisioned. Many of the countries have encountered serious debt problems.

This chapter presents a synthesis of the papers, presentations, and discussions at Lucerne and is organized around two key objectives of the conference. The first is to help bring about a common understanding among CIS-7 governments, civil society, and external partners about the transition experience of the 1990s and the key features of the CIS-7 that conditioned the transition process and could influence future progress. Also important to the understanding of the recent past is the role of the international community, especially as it relates to the buildup of external debt in these countries. The second objective is to clarify common aspects of the agendas for growth and poverty reduction in the CIS-7, and areas in which the countries and their external partners can work together to achieve faster progress.

* All in the Europe and Central Asia regional office of the World Bank. The authors are grateful to Peter Bocock for his assistance, and to Paulo Netshaus and David O. Robinson (both of the International Monetary Fund) for their helpful comments.
Past Developments and Remaining Challenges

Initial Conditions
The move from plan to market in the CIS-7 has proved slower and more difficult than initially anticipated. Progress in the CIS-7 has also been slower than in other countries of the former Soviet Union (FSU). This discrepancy can be at least partly explained by the especially unfavorable initial conditions the CIS-7 faced. Apart from Uzbekistan, all had relatively small populations, ranging from four to eight million. Conditions varied from country to country, but the overall pattern was one of consistently poor economic indicators. For example, compared with other former Soviet republics at the beginning of the transition period, the CIS-7 had:

- Lower industrial output, labor productivity, and average monthly wages and higher unit labor costs.
- Slower per capita growth, lower per capita income, less developed infrastructure, fewer fixed assets per capita, and fewer employees per 10,000 with higher education.
- Fewer exports to destinations outside the FSU (although comparable exports to other former Soviet republics) and larger external current account deficits.

The CIS-7 also were more rural and farther from economic centers than the other former Soviet republics. Except for Georgia’s access to the Black Sea, all are landlocked. In 1989, all of them had higher proportions of their populations with monthly household per capita incomes below 75 rubles than the FSU average—in some cases, substantially higher, such as in the three Central Asian republics of the Kyrgyz Republic, Tajikistan, and Uzbekistan. Most of them experienced armed conflict or serious civil unrest during the initial decade of their independence.

Growth and Poverty in the 1990s
Most of the CIS-7 experienced economic decline in the early to mid-1990s, consistent with the transition predictions for a sharp recession followed by a period of surging growth fueled by productivity gains. Between 1990 and 1995, real gross domestic product (GDP) in the CIS-7 countries fell by an average of 53 percent. The duration and depth of the recession exceeded expectations, and the subsequent economic recovery suffered a serious setback in the aftermath of the regional financial crisis of 1998. Macroeconomic stability also proved a serious challenge for most countries.

The initial growth recovery in the CIS-7 was driven by consumption, both private and public, which had been suppressed during the first years of adjustment.

1 See Wolf (2003).
2 Samuel Otoo, Sarosh Sattar, and Ekaterine Vashakmadze
The contribution of investment was marginal and that of net exports mostly negative. Growth tended to be concentrated in a few sectors (raw materials, agriculture, and services) and proved to be uneven and volatile—depending on weather conditions and a few commodity prices (oil, gold, aluminum, and cotton).

In agriculture, land reform allowing private land ownership laid a good foundation for initial productivity gains. Growth in the services sector (mainly trade, catering, and transportation) reflected small-scale privatization and private ownership. Industrial growth has been heavily biased toward natural resource-based, non-labor-intensive sectors. The manufacturing sector experienced the deepest and longest decline and has not yet shown tangible signs of recovery. This decline partly mirrors the disruptions in input supplies caused by the change in trade patterns and terms-of-trade shocks.

Consumption continues to be the main driving force of growth in Moldova and possibly Uzbekistan and Tajikistan. In the rest of the CIS-7, growth in 1998-2001 appears to have been driven by export expansion and investment in export-oriented sectors. Exports, however, are concentrated mostly in resource-intensive sectors, with little spillover to the rest of the economy and limited potential for job creation. Investment has proved to be volatile, focused in selected sectors, and has not been sufficient to compensate for the erosion of the capital stock, thereby undermining further increases in factor productivity. Overall, by 2001, none of the seven countries had been able to restore real GDP to its 1989 level, and the median GDP was only 62 percent of that in 1989. By the same year, the other countries of the FSU had reached 80 percent of their 1989 median GDP, and the European Union accession countries had reached 98 percent.

The record on poverty is linked to macroeconomic stability and GDP growth. At independence, average income per capita within the CIS-7 was considerably lower than in the other countries of the FSU, but high social expenditure guaranteed some minimum income and services to the vast majority of population. Income inequality was also generally low, with only Azerbaijan, Tajikistan, Turkmenistan, and Uzbekistan experiencing Gini coefficients of over 0.3. Independence has been marked by falling real wages and substantial long-term unemployment, while the stressed social protection system failed to mitigate the impact of economic collapse on the poor. For countries for which time series data are available, the proportion of the population living in poverty appears to have peaked in 1999, following the aftershock of the Russian financial crisis.

Surveys undertaken in 1999 for six of the CIS-7 indicate rates of poverty (using a poverty line of $2.15 per capita a day at purchasing power parity) ranging from a low of 19 percent in Georgia to a high of 68 percent in Tajikistan. As estimated

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2 Strictly speaking, the pretransition GDP data are not comparable to modern estimates, as they are based on production figures only. Recent data also probably understate actual levels of output because of nonrecording of the informal sector, but they are striking nevertheless in cross-country comparisons.

3 Differences in definitions, survey methodology, and coverage impede the calculation of good comparative estimates of poverty.
by Falkingham (Chapter 6), this finding implies that more than 15 million people out of a total population of about 57 million live in poverty. Moreover, the decline in measured output was accompanied by an increase in measured inequality across the region. Rural poverty is a major problem in the CIS-7, exceeding urban poverty in four out of the seven countries (the Kyrgyz Republic, Moldova, Tajikistan, and Uzbekistan). A high poverty rate in rural areas is partly a historical phenomenon but also reflects the immense dislocation from the shrinking industrial sector to agriculture immediately following the breakup of the FSU.

Growth in the agricultural sector appears to have an important impact on rural poverty. In particular, agricultural growth was more associated with rural poverty reduction than growth led by nonagricultural sectors. The benefits of agricultural growth were transmitted to the rural poor via the increase in labor, livestock, and land assets as well as beneficial returns to market participation. At the same time, as highlighted by Cord, Lopez, Huppi, and Melo (Chapter 7), land has been found only weakly correlated with household welfare. Hence, in addition to land reform, complementary public goods (development of markets for land rental, agriculture products and inputs) have been identified as necessary to ensure that privately held land assets achieve higher productivity.

Less progress has been achieved in nonincome dimensions of poverty—notably access to key social and physical services. The social systems and infrastructure inherited by the CIS-7 went well beyond the levels that the economies themselves could support, and they have deteriorated significantly. There is evidence to suggest that social sector policies and expenditures have benefited the affluent more than low-income households.

**The Policy Record**

To a large extent, the mediocre growth performance of the 1990s reflects the mixed track record in the implementation of reforms. The CIS-7 adopted measures for structural reform in the 1990s, especially in the latter years of the decade. Lane (Chapter 3) and Pomfret (Chapter 4) provide assessments of key achievements and remaining challenges at the end of 2001. None of the CIS-7 has progressed very far, however. Below are some snapshots:

- All seven countries applied for membership in the World Trade Organization, and Georgia, the Kyrgyz Republic, and Moldova had already joined by 2001. Regional cooperation efforts have been limited to establishing mostly politically motivated preferential trade agreements with marginal impact on trade performance. In addition, the proliferation of nontariff barriers in the form of informal controls, licenses, and other approvals is an important constraint to export development. Customs services suffer from lack of expertise, weak staff capacity, corruption, and obsolete physical infrastructure.

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*Also see Hare (2003).*
The record of privatization has been uneven. Privatization of small companies was completed in the 1990s, but with mixed results across countries. Divestiture of large enterprises proceeded much more slowly and remains incomplete. In general, privatization in the CIS-7 did not lead to the desired restructuring, as incumbent managers retained control and competition policies were ineffective. Furthermore, corruption is widespread and property rights insecure. These factors help explain the apparent paradox of low economic dynamism despite substantial private sector ownership.

The privatization of land has been limited, partly because governments have been reluctant to grant full property rights. The best performers have been Armenia and Georgia, where independent private farms now dominate the use of arable land. But redistribution has led to fragmentation of land holdings and greater consumption of own production, and thus lower marketed output.

The major achievement in the financial sector was the establishment of two-tier banking systems and a large number of new private banks. However, no country has yet created an efficient financial sector—intermediation is weak, investment financing limited, and lending expensive.

Legal and judicial reform enabling the state to play the key role of providing law and order has been incomplete, not so much in terms of legislation as in terms of implementation and enforcement. Commercial courts function particularly poorly in Azerbaijan, Moldova, and the Kyrgyz Republic, challenging the enforcement of contracts and protection of property rights. The introduction of judicial qualification exams and higher salaries for judges had a positive effect on the independence and effectiveness of the judiciary in Georgia. However, corruption is widespread in all the CIS-7, to varying degrees discouraging economic agents from productive activities.

All the CIS-7 countries have undertaken ambitious tax policy and administration reforms over the past decade. Inadequate enforcement—sometimes owing to a lack of political will to implement needed policy and administrative reforms—and weak staff capacity are the remaining important challenges.

Public expenditure has undergone considerable adjustment, and core public expenditure management institutions and systems (treasury, budget, and local governments systems) have been developed. However, unclear definition of the role of the state, institutional weaknesses, and lack of strategic medium-term planning hamper the ability of the CIS-7 to provide core functions, address market failures, and serve the priorities of poverty reduction.

Infrastructure is generally unsatisfactory. Telecom systems were weak at the beginning of the transition and did not keep pace with developments in global standards. Transport facilities have deteriorated because of inadequate investment or maintenance. Both power and water suffer from underpricing and
wastage of resources. Reform of public utilities is an urgent priority for most of the CIS-7.

The main challenges for policy and institutional reform are as follows:

- Improve the investment climate, notably through good governance, rule of law, and effective institutions.
- Strengthen domestic resource mobilization and public expenditure management, especially for human development and poverty alleviation.
- Enhance global integration and regional cooperation among countries that share common borders, especially as regards trade, transit, and natural resources.

The Role of the International Community and Debt Problems in the CIS-7

The international community has been assisting the CIS-7 since independence, providing policy advice, technical assistance, and financial aid. It is difficult to evaluate the quality and impact of policy advice, but in general the record of the CIS-7 suggests that the major problem so far has been weak implementation rather than wrong advice from the international community.\(^5\) With hindsight, however, it appears the donors may have underestimated the scale of initial dislocation in the CIS-7 following independence, the degree of the countries’ previous dependence on the Soviet Union, and the associated obstacles to rapid reform, as concluded by Helbling, Mody, and Sahay (Chapter 2). Technical assistance, in the form of training or secondment of experts, has been wide-ranging. As discussed by Lane (Chapter 3), this assistance has been most successful in professional and technocratic areas such as establishing functioning central banks, treasuries, and tax and customs departments. There has been significantly less progress in areas such as enforcing the rule of law, combating corruption, and generally creating an investment-friendly business environment.

Aid flows have ranged from an annual 1 percent of GDP in Uzbekistan to 4 to 5 percent in Moldova and Azerbaijan and 7 to 9 percent in Georgia, Tajikistan, and Armenia. The largest assistance, nearly 17 percent of annual GDP, was provided to the Kyrgyz Republic.\(^6\) Multilateral lending appears to be positively correlated with bilateral assistance, which to some extent may reflect cofinancing or, more generally, the signaling effect of multilateral lending.

However, aid has come at a price. The combination of extremely difficult initial conditions, lagging reform, slow growth, and exogenous shocks—ranging from conflict to the consequences of the Russian crisis of 1998—means that debt and debt service have become a problem not fully foreseen in the early years of transition, especially in Georgia, the Kyrgyz Republic, Moldova, and Tajikistan. Ser-

\(^5\) There are, however, some controversial issues related to the pace and methods of privatization.

\(^6\) This translated into cumulative assistance ranging from about 8 percent of GDP in Uzbekistan to 130 percent in the Kyrgyz Republic in 1992-2002.

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vicing the debt consumes resources that might otherwise support poverty reduction and long-term growth. This situation raises the question of whether the international community practiced “overlending” on insufficiently concessional terms in the 1990s. This question cannot be answered unambiguously, given the critical role of external support in preventing even worse declines in living standards. In recent years, however, the pace of reform and growth has picked up, while donor financing has become more concessional.

**The Way Ahead**

Achieving broad-based growth of employment and income opportunities in the CIS-7 requires resolute efforts to strengthen the stabilization gains and address a variety of second-generation structural reforms. Timely progress on the remaining agenda will require urgent action to address the capacity weaknesses of the CIS-7. The effective combination of domestic effort and international assistance is also critical for moving forward. The priorities are as follows:

- Strengthen ownership of reform programs and their implementation and improve governance.
- Enhance donor assistance for countries that follow appropriate policies.
- Build domestic capacity to enable the design and implementation of necessary reforms.
- Increase regional cooperation and trade to overcome both the damaging effects of conflict and the handicaps of small size or remote location.

**Reform Ownership, Governance, and Institutions**

The CIS-7 have made real progress in the transition from plan to market, but deepening and intensifying reforms will depend on genuine, broad-based ownership of the process by governments and the public. It will also depend on formulating homegrown programs, as discussed by Luong (Chapter 8). Securing genuine ownership depends critically on ensuring participation of the political and official establishment, civil society, and citizens themselves in the design, implementation, and evaluation of development strategies, targets, and outcomes. The poverty reduction strategy paper (PRSP) approach, which stresses “putting the country in the driver’s seat” and the key role of participatory processes in poverty reduction strategy formulation, execution, and follow-up, is an important model in this respect. Building on initial experience and lessons from the PRSP process is helping create broad-based support for essential reforms.

For the PRSP processes or other country-owned development strategies to work, they need to be based on effective priority setting. Early worldwide experience with PRSPs suggests that this is one of the most difficult tasks countries face in strategy development. Nevertheless, addressing it is critical for the CIS-7, which are faced with a combination of limited domestic and external resources.
and across-the-board demands for spending, especially on infrastructure, health, education, and social safety nets. An important related task is reaching a consensus on the optimal size and appropriate role of the public sector.

Special attention needs to be paid to maintaining human capital in the CIS-7. Public action is also needed to protect and build capabilities so that the population is able to take advantage of new income-generating opportunities. Comprehensive reforms to unlock efficiencies and ensure provision of appropriate service levels remain a priority, notwithstanding the urgent need for investment in schools and primary health care facilities. Unless governance and structural issues are tackled, however, higher spending in the social sectors may do little to enhance human capital.7

Measures are needed to enhance domestic resource mobilization, including measures that improve the investment climate to expand the revenue base. As discussed by Vandycke (Chapter 9), much of the private sector in the CIS-7 is concentrated in exploiting arbitrage opportunities that result from weaknesses in public sector governance, including predatory tax enforcement, ad hoc incentives, and frequent and piecemeal changes in laws and regulations. Particular attention should be paid to reforms that provide stronger incentives for businesses to operate in the formal economy.8

Effective action on the above agenda implies significant governance reforms. Stronger and more accountable institutions are needed to promote dynamic private sector development and to deliver on key public services. While recent evidence suggests that corruption may be moderating in the CIS-7, it remains a severe problem and needs to be faced squarely.9 Thus, a key step is countering the influence of vested interests such as the central, regional, and local elites inherited from the Soviet era, as highlighted by Luong (Chapter 8).10

The foregoing agenda requires governance reforms and institution building to be undertaken by the CIS-7 themselves. However, donors can provide support in the following areas:

- Encourage the development of transparent and accountable governmental and other institutions.
- Develop independent and impartial judiciaries.
- Strengthen decentralization once the necessary capacity and administrative and governance infrastructure are in place.
- Encourage large-scale privatization—recognizing that the way it is undertaken is critical for success.

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7 See Burnett and Grobloch (2003), Bonilla-Chacin, Murrugarra, and Temourov (2003), and Dobronogov (2003).
8 See Yoon, Reilly, Krsitic, and Bernabè (2003).
9 See Dethier (2003).
Successful liberalization will depend on a combination of central governments adopting and implementing the reforms and empowering potential winners from reform at the local and regional levels. Doing so will not be quick or easy. Potential winners from reform are often widely dispersed across economies and societies, while potential losers are often concentrated and powerful.

**Donor Assistance**

It probably would have been more helpful if donors had offered more grants in the early years of transition. World Bank and International Monetary Fund (IMF) lending to these countries is strictly on concessional terms. The World Bank, through the International Development Association (IDA), is moving to provide grant funding, although the global claims on its grant-making capacity are likely to greatly exceed the resources available. It is important that other donors, especially bilaterals, enhance their grant-based financial support to the CIS-7.

There has been recent progress on the debt front. Countries have engaged in more active debt management, as evidenced by the Paris Club rescheduling of the debt of Georgia and the Kyrgyz Republic. More concessional rescheduling could be available following continuing reform implementation. In this regard, donor willingness to pledge highly concessional assistance at the Kyrgyz Consultative Group meeting is encouraging. However, the debt implications of external financing will continue to be problematic for some time. In determining the extent of assistance, donors need to move with greater determination toward meeting the aid targets under the Millennium Development Goals, while ensuring that the terms of the aid are sufficiently concessional to avoid another debt run-up.

Several initiatives could improve the impact and effectiveness of such assistance. One priority is to allocate donor funds more effectively through better coordination of aid and the avoidance of wasteful duplication. Better donor coordination in technical assistance would also help, with each institution (including U.N. agencies and nongovernmental organizations) providing assistance in line with its comparative advantage. The PRSP process, which emphasizes partnerships among donors as well as between donors and PRSP countries, can be a powerful new tool for improved donor coordination. One possibility is pooling donor funds together with the development of public-private partnerships to avoid overlapping (or competing) donor programs. Well-designed public-private partnerships and greater private investment generally would expand the flow of resources beyond the limited funds available from the international financial institutions (IFIs). For private investment flows to become substantial, the CIS-7 will need to build investment climates conducive to private sector development, including small and medium-size enterprises.

The CIS-7 thus need to play their part. Donors are focusing on assisting countries that demonstrate a commitment to sound policies and substantial reforms. Highly concessional finance and debt relief will succeed only if linked to effective
macroeconomic performance and continuing structural and social reform. There may be a case for not cutting off assistance to poor performers, on the grounds that disengagement could strengthen the hand of local groups opposed to reform. There may be strong external pressures to continue providing assistance to prevent recipients from becoming failed states. But a more effective external financing environment (including grant aid) should include the understanding that support may be withdrawn if recipients persistently fail to live up to reform commitments.

Securing greater resource flows on better terms to support countries’ reform programs is only part of the picture. If reforms are to be effectively implemented and sustained, leading to faster growth and poverty reduction, the international community and the CIS-7 need to work together to accelerate capacity building.

**Capacity Building**

Substantial portions of donor assistance to the CIS-7 have directly supported institutional development—ranging from a high of one-quarter to one-third of the total in Moldova to a low of 10 to 15 percent in Uzbekistan, with most other countries averaging an institutional development component of 20 to 25 percent. The track record has been mixed, in part owing to the diffusion of efforts across a wide range of issues. Capacity building needs to focus on reform in three areas: improving public expenditure management, upgrading revenue administration, and enhancing capacity in data collection and monitoring. For these areas, donors can provide financial assistance, technical assistance, training, and targeted partnerships.

Current public expenditure management systems do not serve the priorities of poverty reduction strategies well. Too little attention goes to the relative effectiveness of different programs in terms of alleviating poverty, with insufficient priority for social protection expenditures that target the poor, or for health and education. To ensure that multiyear plans for poverty reduction and other priorities are appropriately financed, capacity is needed to better match medium-term budgetary resource allocation to projected expenditure needs. As discussed by Betley (Chapter 5), this requires moving away from short-term budgeting decision making toward medium-term budgetary frameworks. It is encouraging that Armenia, the Kyrgyz Republic, and Moldova are already adopting such frameworks, and that the other four CIS-7 countries are planning to do so as well.

The CIS-7 have made advances in improving revenue administration over the past decade, including laying the groundwork for increased taxpayer compliance. However, staff capacity remains limited in important areas such as management, international accounting, and functional skills. Strategic objectives need to be translated into realistic work programs, with improvements in taxpayer registration and self-assessment, the audit function, collection enforcement, and services to taxpayers.¹¹

Better data collection and monitoring are needed in the CIS-7 to guide policy and investment decisions and to improve targeting and efficiency in the social sectors. Appropriately disseminated, good data will strengthen governance through greater transparency, and will be crucial in assessing progress and determining needs for achieving the Millennium Development Goals.

**Regional Cooperation**

The recovery and future prosperity of the CIS-7 will depend on mutual cooperation among neighboring countries in areas ranging from trade and transportation to water and energy. It is also important that the interests of the CIS-7 be appropriately taken into account in the Doha round of trade negotiations, especially given the importance of agriculture in most CIS-7 economies. Many CIS-7 countries now have very liberal trade policy regimes. However, as discussed by Michalopoulos (Chapter 10), their exports have tended to be concentrated in capital-intensive extractive industries, which offer limited prospects for employment growth and poverty reduction.

There are significant trade links among the Central Asian countries, but much more limited ones among the Caucasus countries, and very limited ones between these two groups and Moldova. Impediments to trade cooperation take the form of nontariff barriers (informal controls, licenses, and other approvals), institutional and bureaucratic constraints, and problems with customs services. While all CIS-7 countries are signatories to regional cooperation agreements, implementation lags far behind formal commitments. More effective trade integration will depend on reducing current impediments and moving simultaneously toward greater cooperation among subregional groupings and greater integration with the outside world. External partners will also need to support the strengthening of customs and tax administration and broaden assistance for standards and other trade-related institutions.

Improving transportation requires dealing with corruption, including very substantial unofficial payments for semicompulsory guard services that greatly increase transit costs. It also requires taking advantage of currently unrealized scale economies in transportation and improving logistics services. The CIS-7 would benefit from adhering to the TIR Convention and harmonizing transit fees and border procedures. The donor community could help in these and other areas through technical assistance, grant financing, and other support.12

Finally, both national action and regional cooperation in the energy and water sectors would pay substantial dividends for the CIS-7. As highlighted by Kennedy, Fankhauser, and Raiser (Chapter 11), these countries' most important natural resources—energy and water—are unevenly distributed. Azerbaijan and Uzbekistan have substantial energy resources, while Armenia, Georgia, the

Kyrgyz Republic, and Tajikistan have important water resources, offering good potential for intraregional trade.

Greater regional cooperation requires reforming domestic power and water tariffs, which do not currently reflect the cost of provision. The reforms will need to begin with domestic price adjustment, which will be politically difficult. But price reform, both domestic and intraregional for energy and water trade, is essential to avoid continued deterioration in infrastructure. Price reform in regional trade of these commodities is also essential if countries are to reap its benefits. Here again, donors can help with technical assistance, grant financing, and other support, provided the countries manifest the political will for deeper reforms.

Conclusion

The CIS-7 faced enormously difficult conditions at independence and took some time to develop appropriate policy responses. In hindsight, external financial support should have been provided on more concessional terms. Bilateral grants to the CIS-7 fell well short of levels provided to other low-income countries. In recent years, however, most of the seven have pressed forward with an important—but still incomplete—reform agenda. Multilateral and bilateral partners have broadened and softened the terms of their assistance.

For the future, it will be essential for both countries and donors to translate a better understanding of the development challenges facing the CIS-7 into more effective reform implementation and external assistance. The growing divergence in the performance of the CIS-7 indicates that at some point it will be useful to review the continued relevance of the CIS-7 Initiative as a development cooperation mechanism. The four IFIs that sponsored the Initiative will continue to focus on the broad and mutually reinforcing areas for action outlined here—ownership and governance, finance and debt relief, and capacity building and regional cooperation.

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Debt Accumulation in the CIS-7 Countries: Bad Luck, Bad Policies, or Bad Advice?

Thomas Helbling, Ashoka Mody, and Ratna Sahay*

Introduction

With the exception of Azerbaijan, which is a net energy exporter, the other low-income CIS countries—Armenia, Georgia, the Kyrgyz Republic, Moldova, Tajikistan, and Uzbekistan—face serious external debt problems. From a situation of virtually no debt in 1992, a meteoric increase in debt levels occurred thereafter. In particular, multilateral (IMF and World Bank) lending contributed to the high and increasingly unsustainable levels of debt, despite close monitoring by these institutions undertaken through their conditionality. The CIS-7 experience contrasts with that of other transition economies, which have managed the transition without similar debt accumulation, and is more akin to that of the poorer, highly indebted countries that are heavily reliant on official credit.2

What caused this rapid accumulation of debt? Was it bad luck—was their transition especially painful because of initial conditions that proved to be more difficult ex post than expected ex ante and adverse exogenous shocks? Was it bad policies—did the countries fail to implement the reforms necessary to navigate the transition process smoothly? Or, was it bad external advice—did the international financial institutions (IFIs) make matters worse by lending too much based on unrealistic expectations of growth under the policies prescribed?

As a first step, this paper analyzes the structure and the dynamics in the CIS-7 countries’ external debt and, where appropriate, provides comparisons with other transition countries in other parts of the world. The analysis demonstrates that debt accumulation was fundamentally the consequence of large recurring current account deficits combined with an unprecedented output decline in the

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1 The Commonwealth of Independent States (CIS) comprise Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, the Kyrgyz Republic, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan. Of these, the low-income countries, known as the CIS-7, are Armenia, Azerbaijan, Georgia, the Kyrgyz Republic, Moldova, Tajikistan, and Turkmenistan.

initial years and its slow recovery thereafter. Debt ratios continued to rise despite the pickup in export growth; the significant foreign direct investment (FDI) inflows (albeit uneven across countries); a decline in average interest rates over time; and, surprisingly, a large real exchange rate appreciation during the transition (notwithstanding the depreciations following the Russian crisis). Although the macroeconomic performance in the CIS-7 countries has improved significantly in recent years, the large buildup of debt is proving to be a drag on their economies, requiring painful adjustment to bring debt back to sustainable levels.

The subsequent section reviews the external adjustment experience under IMF programs and analyzes the reasons for large deviations in outcome relative to projections for the two case studies—the Kyrgyz Republic and Moldova. The case studies indicate that severe problems were encountered in accurately projecting the output of the CIS-7 countries in the midst of large changes, and output growth projections were generally over optimistic. Additional complications arose as historical data were revised downward. In essence, this meant that during the early years when debt sustainability exercises were conducted, true debt ratios were much higher than those measured in the data available at the time.

We then consider, in the section on external adjustment, the factors associated with large recurring current account deficits and the constraints on adjustment. Regression results suggest that the extent of external adjustment (measured by the change in the current account deficit as ratio of GDP) was limited as a result of five factors: large initial current account deficits due to the sudden cutoff of fiscal transfers from Moscow to the CIS-7; the limited extent of concurrent fiscal adjustment; poor GDP growth performance in the initial years; easy availability of multilateral loans on a continuous basis; and adverse terms-of-trade shocks on account of the breakup of Council of Mutual Economic Assistance (CMEA) trade, a sharp increase in energy product prices, the Russian crisis, and—in some countries—internal armed conflict.

Thus, while difficult initial conditions, the inability to undertake fiscal adjustment, and exogenous shocks were responsible for the debt buildup, the availability of financing from the multilateral institutions allowed large current account deficits to continue. The hope was that the World Bank- and IMF-supported reform programs would be successfully implemented. In practice, implementation fell short of programs, especially during the initial years, in part because the countries’ implementation capacity was overestimated. Also, the consequences of the initial forecasting errors have proved to be far-reaching because unanticipated and costly long-term debt problems have emerged. This problem was compounded by the fact that initial GDP estimates were typically revised downward ex post.

In hindsight, multilateral agencies (or any other entity) could not have foreseen the full extent of the disruption that the breakup of the Soviet Union would cause. Did the IFIs make a mistake in continuing to lend, however, even though debt was rising consistently over time? Consumption data indicate that foreign aid helped raise domestic consumption levels above those that would have been
otherwise possible. It should be noted, however, that this financing was not sufficient to maintain consumption in real terms, with output falling rapidly and inflation surpassing three or even four-digit levels in the initial years. Consequently, poverty and mortality rates rose at disturbingly high rates. At the same time, IFI financing was not free, which raises the question whether more belt-tightening in the early years by the countries was warranted to prevent the large build-up of debt. In view of the trade-off between maintaining decent living standards and ensuring debt sustainability, a conclusion that could reasonably be drawn in hindsight is that more bilateral donor grants should have been given in the initial years, to be replaced later by IFI financing of investments in reform.

**Key Statistics and External Debt Dynamics**

Table 2.1 shows current levels of external debt in each of the CIS-7 countries, measured in relation to exports, government revenues, and GDP. Apart from Azerbaijan and Uzbekistan, which are rich in natural resources, external debt in the remaining countries ranges from 55 percent of GDP to nearly 120 percent. These levels are much higher than in other transition countries and are comparable to those low-income developing countries the rest of the world that are heavily or severely indebted.³

**Structure, Maturity, and Creditors**

To facilitate comparison with other transition countries, comparisons are made in “transition time.” This expositional device allows us to account for the fact that transition started at different times in the various countries. In figures below, the time \( t_0 \) denotes the year in which the transition from planning to market began; for the CIS countries, \( t_0 \) was 1992—somewhat later than for Central and Eastern Europe.

Figure 2.1 shows that the CIS-7 external debt is largely debt issued or guaranteed by the public sector. The share of public and publicly guaranteed external debt in total external debt has been higher than the average in other transition economies or in low-income developing countries. While recently declining, the share has, remained on average above 80 percent (in 2000), which is comparable to the share in low-income developing countries that are heavily indebted. Among the CIS-7 countries, Azerbaijan, the Kyrgyz Republic, and Tajikistan stand out with shares below average, which largely reflects higher shares of privately owned debt related to export credits and foreign direct investment.

Second, over time the share of official concessional external financing (based on new commitments) in CIS-7 countries has reached levels observed in low-

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³ We follow the country classification used in the World Bank’s *Global Development Finance*, our main data source in this section. Specifically, low-income developing countries are defined on the basis of a gross national income (GNI) per capita of less than US$745 while low-income developing countries that are heavily indebted either have an external debt-to-exports ratio of 220 percent or more or an external debt-to-GNI ratio of over 80 percent.

⁴ See Fischer, Sahay, and Vélég (1996a) and Fischer and Sahay (2000).
### Table 2.1. CIS-7 Countries: Key External Debt Ratios

<table>
<thead>
<tr>
<th></th>
<th><strong>External Debt Net Present Value 2000</strong></th>
<th><strong>External Debt Face Value end 2001</strong></th>
<th><strong>Debt Service 2001</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>In percent of exports ¹</td>
<td>In percent of exports ¹</td>
<td>In percent of GDP</td>
</tr>
<tr>
<td>Armenia</td>
<td>106.0</td>
<td>189.8</td>
<td>185.4</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>44.0</td>
<td>90.6</td>
<td>55.5</td>
</tr>
<tr>
<td>Georgia</td>
<td>103.8</td>
<td>275.1</td>
<td>203.6</td>
</tr>
<tr>
<td>Kyrgyz Republic</td>
<td>237.3</td>
<td>550.4</td>
<td>323.5</td>
</tr>
<tr>
<td>Moldova</td>
<td>104.3</td>
<td>280.1</td>
<td>219.9</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>117.5</td>
<td>697.3</td>
<td>158.4</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>125.5</td>
<td>111.2</td>
<td>144.1</td>
</tr>
</tbody>
</table>

**Memorandum items:**

- **All other transition countries ²**: 91.9 43.7 17.2
- **Other CIS countries**: 97.1 62.3 13.5
- **Low-income developing countries ³**: 181.1 53.3 15.7
- **Modestly indebted**: 187.0 78.9 12.3
- **Severely indebted**: 237.9 100.3 19.3
- **Heavily indebted**: 259.4 101.5 12.3

**Sources:** IMF, World Economic Outlook database; World Bank, Global Development Finance, 2002.

¹ Exports of goods and services.

² Median.

³ 2000.
Figure 2.1. CIS-7 Countries: Key External Debt Statistics in Comparison (Annual Averages)

- Share of public and publicly guaranteed debt in total external debt (percent; LHS)
- Share of concessional debt in total debt (percent; LHS)
- Average maturity (years; LHS)
- Average interest rate on external debt (percent; RHS)

Note: Time axes are in transition time. T0 denotes the year in which the transition started.
The dates were taken from Fischer and Sahay (2000).
income developing countries (above 40 percent). Initially, however, the share of this type of financing was small, because the CIS-7 countries' external debt reflected primarily energy import-related debt to Russia and Turkmenistan on commercial terms. Despite the recent increase, the share of official concessional debt remains below those in low-income developing countries that are heavily indebted, even though the external debt ratios in the two groups of countries are comparable.

Third, the CIS-7 external debt is mostly long term in nature. Over time, the maturities of new external financing commitments have exceeded 30 years on average, comparable to those in low-income developing countries that are heavily indebted and above those in other low-income developing and transition countries.

Fourth, the average interest rate of new debt commitments in the CIS-7 countries has fallen over time to about 1 percent, comparable to rates found in low-income developing countries that are heavily indebted. Average interest rates in low-income developing and other transition countries are substantially higher.

Fifth, the CIS-7 countries owe more to the IMF and the World Bank than other transition countries or low-income developing countries (Figure 2.2). Relative to the CIS average, Tajikistan and Uzbekistan, where reform efforts have been lagging, have relatively smaller shares of debt owed to the IMF and the World Bank, whereas faster reformers—especially Armenia and the Kyrgyz Republic—have higher shares.

The CIS-7 debt shares owed to other IFIs also total more than those of other transition countries, but are comparable to those of low-income developing countries. Similarly, CIS-7 countries owe a larger share to bilateral official creditors than do other transition countries but less than low-income developing countries. In contrast, the share of debt owed to private creditors in the CIS-7 is comparable to that of low-income developing countries but falls short of that of other transition countries. The most notable change over time in the structure of the CIS-7 countries' external debt is the shift from debt owed to bilateral official creditors to that owed multilateral official creditors and, to a smaller degree, to that owed private creditors. This pattern reflects the declining dependence on other CIS countries, notably for energy imports.

In sum, the debt structure of the CIS-7 economies has become similar over time to that of other low-income countries. While initially the debt profile of CIS-7 countries was similar to that of other transition economies, a notable difference has emerged: namely, a much higher share of public and publicly guaranteed debt, indicating that private sector entities in the CIS-7 economies have substantially lower access to international capital markets than those in other transition economies.

5 The per capita income in CIS-7 countries is comparable to that of low-income developing countries. This qualifies them to receive external financing on concessional terms from various sources, including from the IFIs.
Figure 2.2. CIS-7 Countries: External Debt by Creditors in Comparison
(In percent of total external debt; annual averages)

Source: World Bank, Global Development Finance
Note: Some time axes are in transition time. T0 denotes the year in which the transition started. The dates were taken from Fischer and Sahay (2000).
Decomposing External Debt Dynamics

We decompose the changes in the CIS-7 countries' external debt into the main contributing factors (see Appendix for technical details). Balance of payments identities imply that the change in the stock of external debt between any two periods must equal the sum of the trade of goods and services; the transfer balance (these two items together add up to the primary external current account balance); interest payments on existing external debt and the change in foreign exchange reserves (and other assets held by residents abroad), minus the non-debt creating net capital. Since, FDI flows are the most important non-debt creating flows, they are shown separately in the figures below.

It is customary to use the ratio of external debt to GDP rather than the debt stock in nominal terms to assess the burden that the external debt can impose on the economy as a whole because some sectors have significant revenues in domestic currency (e.g., the government). When considering ratios, factors contributing to the changes in the denominator (e.g., the domestic GDP in U.S. dollar terms) also need to be taken into account. In addition to real GDP growth in domestic currency terms, changes in the real exchange rate can also potentially alleviate or aggravate the debt burden. If the real exchange rate appreciates, the external debt burden declines, and vice versa.

Figure 2.3 illustrates the debt-to-GDP decompositions. They are based on annual data on transition time. All contributing flows are shown as cumulative flows from transition time $t_0$ onward, showing the total contribution from the beginning to that point in time. The primary current account balance in time $t_0$, for example, would be the sum of primary current account balances from $t_1$ to $t_0$. The obvious exception to this timing convention concerns the changes in the debt-to-export ratios, which are based on the end-of-period debt ratios in $t_0$.

Large primary current account deficits are the single most important factor contributing to the rise in CIS-7 external debt. The cumulative sum of the primary current account balance is, on average, about seven times as large as in other transition countries. Also, as expected, interest payments have been less significant for the CIS-7 countries than for other transition countries because a substantially larger share of CIS-7 debt is on concessional terms, while other transition countries have borrowed more from the private sector on commercial terms. FDI inflows and high export growth have mitigated the debt problem in the CIS-7 countries as well as in other transition economies. Interestingly, the relative significance of FDI flows has been greater in the CIS-7 countries than in the other transition countries, although export growth has been much higher in the latter. In both country groups, the average contribution of real GDP growth to reducing the debt burden is similar.

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6 Strictly speaking, U.S. dollar inflation also needs to be considered as discussed in the Appendix. This factor, however, is outside the control of the transition countries, and its contribution to the debt dynamics has been small.

7 It should be noted that among the CIS-7 countries, the distribution of FDI inflows is very uneven. Azerbaijan, the oil-producing country, has received three times the CIS-7 average, while the slow reformers, Tajikistan and Uzbekistan, have received very little FDI.
Figure 2.3. CIS-7 Countries: Decomposing the External Debt Dynamics
(As ratios to GDP in percent; cumulative values from $t_0$)

Sources: Staff calculations; WEO database.
Note: Time axes are in transition time. $T_0$ denotes the year in which the transition started. The dates were taken from Fischer and Sahay (2000).
Perhaps, the most surprising result of this exercise is the positive contribution of the real appreciation of the CIS-7 currencies against the U.S. dollar in reducing the debt burden. On average, this effect turned out to be half as large as the absolute value of the cumulative current account or about 25 percentage points of GDP. Even the depreciations of the CIS-7 currencies against the ruble and other currencies in late-1998 and 1999 do not appear to have made much of a difference.

**External Adjustment: Programs and Outcomes**

Having established the primary importance of current account deficits in contributing to the external debt burden, we now explore whether such large deficits either were or could have been predicted. Since virtually all countries had IMF-supported programs, projections and actual performance of macroeconomic indicators provide potentially useful insights into what went wrong. Given that CIS-7 countries began with large imbalances in their fiscal and external accounts, medium-term projections in IMF-supported programs typically reflected large adjustments to ensure sustainable debt paths.

Despite large initial current account deficits in the CIS-7, there seemed to be good reasons ex ante to believe that a combination of financing and adjustment policies would help achieve medium-term debt sustainability, given the two mutually reinforcing factors. First, permanent productivity increases could be expected once many of the pre-existing distortions of the communist system were removed and market-oriented reforms were adopted. Positive productivity shocks, especially to the external sector, initially can generate current account deficits. Over time, however, productivity growth allows the deficits to gradually turn into surpluses, which can then service the external debt. Second, external aid was planned not only to finance investments in reforms but also to allow for gradual reduction of the external imbalances so as to avoid disruptive adjustment and large social costs. As transition proceeded, however, events did not quite shape up as planned.

To maximize the period covered under IMF-supported programs, case studies are presented on the first two countries that entered such a program, the Kyrgyz Republic and Moldova, to illustrate what went wrong. Since our main variable of interest—external debt-to-GDP ratio—depends as much on the evolution of GDP as on external debt in absolute terms, we looked at IMF-supported program projections on both variables. Errors in GDP growth projections in these countries turned out to be the key to understanding the evolution of the debt-GDP ratios. The extent of output collapse in the early years of transition was simply not anticipated. A forthcoming working paper includes a case study on Georgia and provides a more extensive analysis of the GDP growth projections.

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8 Blanchard (1997).
9 Obstfeld and Rogoff (1996).
10 Campos and Coricelli (2002).
11 Helbling, Mody, and Sahay (forthcoming).
**Case Studies**

**The Kyrgyz Republic**

The Kyrgyz Republic has perhaps the most acute external debt problem, at nearly 120 percent of GDP. Figures 2.4 and 2.5 clearly illustrate the policy planning problems of the early years. The projected and actual medium-term paths are presented for the external current account and the external debt (in U.S. dollars and in percent of GDP) under various annual programs approved during 1993–98. As is typical in the analyses if IMF-supported programs, all projected paths start in the year in which the program was approved and are reported for five- to six-year periods ahead.

Consistent with the expectation that productivity would rise rapidly, the first program, the 1993 Stand-by Arrangement, predicted a sharp initial increase in the current account deficit and a rapid decline thereafter. The external debt was expected to stabilize quickly at around 45 percent of GDP in this scenario. Interestingly, during the first two years of the program ($t_1$ and $t_2$), the actual current account deficits turned out to be below projections. The difference was especially large in U.S. dollar terms while that in percentage points of GDP was smaller, an indication that growth fared worse than expected.

Given the better-than-expected outcomes in the first two years of the first program, the paths for the external current account deficits envisaged under subsequent programs were revised from the V-like shapes to “stretched U-shapes.” Thus, the projected external current account deficits projected in later programs were not anticipated to increase to the maximum levels envisaged under the earlier Stand-by Arrangement but were expected to remain large for a longer time span and to decrease only very gradually. Despite large deficits for a longer period of time, the external debt was expected to increase only gradually and converge to about 45 percent of GDP, reflecting among other things sustained anticipation of rapid GDP growth in U.S. dollar terms.

The deviations between program projections and actuals occurred under subsequent programs and reflected the unexpected deterioration in the external current accounts in 1996 ($t_3$) and in 1998 ($t_4$), the year of the Russian crisis. These large shocks do not seem to have led to a call for more ex ante adjustment, and projected external current account deficits remained in the range of 5 percent of GDP. In program documents, the deterioration in external debt ratios was noted but for a long time was not considered a problem, and references were made to the large share of concessional funds in the overall external financing received.

As new programs were initiated and new statistical systems were set up, large discrepancies in the measurement of GDP began to emerge. Comparing early program documents with later ones suggests that, at some point, the U.S. dollar GDP in 1992—the initial year of the transition—was revised downward belatedly by about two-thirds of the value used in the early projections. This revision alone implied ex post increases of about 40 percentage points in the debt-to-GDP ratio at the end of the projection period under the first Stand-by Arrangement.

Debt Accumulation in the CIS-7 Countries
Figure 2.4. Kyrgyz Republic: External Current Account Balance—Projections and Actuals

Medium-term projections under IMF programs compared with actual outcomes

Sources: IMF Staff Reports; WEO database; and Staff calculations.
Figure 2.5. Kyrgyz Republic: External Debt—Projections and Actuals
Medium-term projections under IMF Programs compared with actual outcomes

Sources: IMF Staff Reports; WEO database; and Staff calculations.
Overall, the graphical analysis illustrates how the combination of programmed large external current account deficits, initial growth optimism, and subsequent revelations of statistical overstatement of GDP turned out to be a lethal mix for misjudging the rapid increase in external debt ratios. When large external current account deficits were planned, the debt dynamics became more vulnerable to unexpected deviations from the projections. External debt, manageable at about 40 percent of GDP at the end of $t_0$, basically worsened during a period of three years (from $t_0$ to $t_1$).

Moldova

The first IMF-supported program with Moldova began in late 1993, only a few months later than that of the Kyrgyz Republic. Figures 2.6 and 2.7 show the comparisons between projected and actual medium-term paths for the external current account and the external debt under various annual programs approved during 1993 to 1998. The projected adjustment in the external current account deficits (as a percent of GDP) over the medium term appears somewhat more ambitious than in the case of the Kyrgyz Republic. This is reflected in declining debt-to-GDP ratio projections. Initially, during $t_0$ to $t_1$, the actual external current account balance in U.S. dollar terms performed noticeably better than anticipated, which is also reflected in the external debt path. In percent of GDP, the performance is only better in some of these early years because as GDP in U.S. dollar terms was overpredicted. The latter also explains the overshooting of the actual external debt as percent of GDP in $t_1$.

Starting in $t_1$, the actual current account began to deteriorate rapidly compared to program targets, both in U.S. dollar terms and as percent of GDP—a process that culminated in a forced, abrupt adjustment after the Russian crisis in $t_2$. Correspondingly, the external debt began to increase rapidly and to exceed program projections by rising margins, although the deterioration in the actual debt dynamics as compared to the projected one, also reflects the unanticipated sharp real depreciation after the Russian crisis. While program projections suggest that the deterioration in the external current account was to be reversed quickly, policy measures were insufficient, and the sequence of adverse shocks had larger effects than anticipated.

As in the case of the Kyrgyz Republic, the Moldovan experience shows how the combination of slow planned adjustment in large initial current account deficits (as percent of GDP), large shocks to the external current account, overly optimistic growth projections, and mismeasurement of data led to a surge in the external debt to unsustainable levels within a period of four years. This problem was compounded, particularly in the Moldovan case, by the sharp real exchange rate depreciation that followed the 1998 Russian crisis.

**Decomposing the Forecast Errors in External Debt Ratios**

A more systematic analysis of the forecast errors in the external debt-to-GDP ratios leads to similar conclusions (Table 2.2). A time span of four years for the
Figure 2.6. Moldova: External Current Account Balance—Projections and Actuals
Medium-term projections under IMF programs compared with actual outcomes

Sources: IMF Staff Reports; WEO database; and Staff calculations.
Note. Time axis is in transition time. T0 denotes the year in which the transition started. The dates were taken from Fischer and Sahay, “The Transition Economies After Ten Years,” IMF Working Paper 00/30 (Washington: International Monetary Fund, 2000).
Figure 2.7. Moldova: External Debt—Projections and Actuals

Medium-term projections under IMF Programs compared with actual outcomes

Sources: IMF Staff Reports; WEO database; and Staff calculations.
Note. Time axis is in transition time. To denotes the year in which the transition started. The dates were taken from Fischer and Sahay, "The Transition Economies After Ten Years," IMF Working Paper 00/30 (Washington: International Monetary Fund, 2000).
calculation of errors seems to be an acceptable compromise between a medium-term forecast horizon and a reasonable number of forecast errors, given the short sample sizes. The errors reported in the table are the differences between the debt-to-GDP ratio four years ahead, predicted at the time of program approval and the actual debt-to-GDP ratio four years later. Given the differences in reporting across time and countries, a few simplifying assumptions had to be made to allow for a unified methodology (see Appendix).

The results of the forecast error decomposition suggest that the external debt-to-GDP ratio—or, alternatively, the cumulative current account deficit to GDP ratio—was typically under-predicted. It is clear from the tables that with GDP in U.S. dollar terms being over-predicted, economic growth was not large enough to reduce the burden of already accumulated debt in percent of GDP as planned and, at the same time, allow for continued large (planned) deficits with little or no effect on debt ratios. This effect of the GDP overprediction accounts for a substantial portion of today’s debt problems. In addition, revisions to the initial debt levels, on which program projections were built, contributed positively to the forecast errors ex post. The forecast errors in GDP growth in U.S. dollar terms were not only due to errors in predicting real GDP growth. Errors in predicting the real exchange rate and statistical uncertainty about initial GDP levels appear to have been at least as important if not more important. In sum, the CIS-7 debt management strategy which allowed for initially large external imbalances that were expected to turn around as growth picked up rapidly, was undermined due to large forecasting errors.

External Adjustment: A Comparison with Other Transition Economies

A comparison of CIS-7 countries with other transition countries indicates that in more recent years the difference in the level of external current account deficits between the two groups has narrowed markedly. In particular, in the tenth year of the transition (t in Figure 2.8), the external imbalances in both groups were virtually the same. The dynamic path of the current accounts differed markedly, however. The CIS-7 countries started the transition with large current account deficits that persisted for about six years (up to the Russian crisis) and began to adjust rather quickly thereafter. On average, other transition countries started with current account surpluses that slowly eroded and turned into deficits.

Given these differences in the adjustment dynamics between the CIS-7 and

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12 The attribution of the overall error to the components had to be approximated because as the latter enter the debt-to-GDP ratio nonlinearly. We used a first-order approximation (see Appendix). Even though in the case of large errors in components (e.g., unanticipated large real depreciation) the second-order terms become significant, we do not report them here because the first-order approximation is sufficient to illustrate our main arguments.

13 As shown in Helbling, Mody, and Sahay (forthcoming).

14 In the case of Moldova, the reporting in program documents does not allow for the use of identical time spans for the calculation of forecast errors, which explains the varying number of years in the forecast errors for GDP.
Table 2.2. External Debt Ratios: Four-year Forecast Error Decomposition for Two CIS-7 Countries

<table>
<thead>
<tr>
<th>Arrangement</th>
<th>Kyrgyz Republic</th>
<th>Moldova</th>
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<tr>
<td></td>
<td>SBA</td>
<td>ESAF</td>
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<td>Approval (first year of projection)</td>
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<td>Projection span (years)</td>
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<thead>
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<th>External Debt (percent of GDP; end of period)</th>
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<tr>
<td>Projection</td>
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<td>Outcome</td>
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<td>Forecast error (percentage points)</td>
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<tr>
<th>Attributable to forecast errors in percentage points of GDP</th>
<th>Kyrgyz Republic</th>
<th>Moldova</th>
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<td>Cumulative flows in U.S. dollars</td>
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<td>External current account</td>
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<td>-1.4</td>
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<td>FDI</td>
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<td>-4.5</td>
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<td>Other (inc. residual)</td>
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<td>Cum. flows due to GDP forecast error</td>
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<td>10.8</td>
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<td>Revisions to initial debt in U.S. dollars</td>
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<tr>
<td>Stock effects due to GDP forecast error</td>
<td>0.4</td>
<td>10.4</td>
</tr>
</tbody>
</table>

Sources: Staff calculations based on Staff reports and WEO database.

1 P1, P2, and P3 denote the respective annual programs in ESAF/PRGF arrangements while R1, R2, and R3 denote respective reviews under Extended Fund Facilities (EFF). 2 Date of Executive Board Approval of arrangement or annual program, respectively. 3 The fourth year of the projection horizon. 4 Number of years covered by the projections. 5 First-order approximation of forecast error in debt-to-GDP ratio. There is an unexplained residual error which is due to second-order errors, which can be large in case of large errors to components. A positive sign means an overprediction for variables that are positive (underprediction for negative variables such as deficits).
other transition countries, this section examines the adjustment record over the
period $t_0$ to $t_1$, which corresponds to the years 1992-2001 for the CIS-7 coun-
tries, and finds a further breakdown into transition phases to be an important
part of the story. Specifically, we refer to the years $t_0$ to $t_1$ as the initial phase (or
initial conditions), the years $t_1$ to $t_2$ as the early phase, and the years $t_2$ to $t_3$ as the
later transition phase.

What Explains the Difference in the Adjustment Record? Five Hypotheses

Initial Conditions and Distortions
All the transition economies (including the CIS-7) inherited a system of distorted
relative prices, state ownership of productive capital, and a large dependency on
CMEA trade; however, the degree of distortions, economic structures, and pat-
terns of specialization varied widely across the countries. The differences in ini-
tial conditions were important determinants of varying inflation and growth
performances during the transition.\textsuperscript{15} The unraveling of heavy economic
dependence on the Soviet system, both via CMEA trade as well as via a complex
system of tax and transfers with the center, appears to have contributed to the
deeper and more prolonged output decline in the CIS-7 (Figure 2.9). In addi-
tion, these countries, most of which have been net energy importers, had to cope
with a very large initial terms-of-trade shock, as energy prices rose to commercial
terms overnight. The higher initial distortions in the CIS-7 countries as com-
pared to other transition economies were reflected in relatively larger external
and fiscal imbalances in the initial years, as shown in Figure 2.8. Moreover, these
initial deficits were also associated with smaller adjustments later, as shown by the
negative correlations with changes in the deficits in subsequent years (Table 2.3).

The Transition
All transition countries faced bursts of inflation; volatility in relative prices;
large-scale changes in economic structure; and losses of subsidies and transfers,
especially those related to energy consumption nonetheless, the CIS-7 countries
experienced the most difficult transition challenges. Debt began to accumulate
rapidly as subsidies and transfers from the center came to a halt, and near mar-
ket prices for energy-related products began to be paid. The downward spiral in
output performance had important implications for adjustment—it reduced the
present value of the stream of future taxes and raised the net present value of
programmed expenditure.\textsuperscript{16} Accordingly, fiscal policy was more expansionary,
which, in turn, explained the larger-than-projected external current account
imbalance.

\textsuperscript{15} See Fischer, Sahay, and Végh (1996a and 1996b) and De Melo, Denizer, and Gelb (1996). Berg
and others (1999) confirm this finding but show that the effect of the initial conditions declines
over time, while policy performance becomes increasingly important.

\textsuperscript{16} See, for example, Easterly (2001).
Figure 2.8. CIS-7: Macroeconomic Adjustment Compared with Other Transition Countries
(Average of CIS-7 countries [solid line] compared with average of other transition economies [dashed line].)

Primary External Current Account Balance

Primary Current Account Balance and FDI Inflows

General Government Balance

Sources: World Economic Outlook database.

1 Time axis is in transition time. T0 denotes the year in which the transition started. The dates were taken from Fischer and Sahay (2000).
Figure 2.9. CIS-7: Macroeconomic and Structural Indicators Compared with Other Transition Countries

(CIS-7 countries (solid line) compared with average/median of other transition economies (dashed line) )

- Real GDP (Average)
- Index of Foreign Demand (Real Imports of Partner Countries)
- Index of Terms of Trade
- EBRD Index of Forex and Trade Liberalization

Source: WEO database; and European Bank for Reconstruction and Development, Transition Report, various issues.

1 Time axis is in transition time. To denotes the year in which the transition started. The dates were taken from Fischer and Sahay (2000).
Table 2.3. Transition Countries:
Sample Correlations in Transition Time
(Marginal significance levels in parenthesis)

<table>
<thead>
<tr>
<th>External Current Account Balance¹</th>
<th>Average</th>
<th>Adjustment²</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>t₂-t₅</td>
<td>t₆-t₉</td>
</tr>
<tr>
<td>External current account balance¹</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average t₀-t₁</td>
<td>0.52</td>
<td>-0.35</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.00)</td>
</tr>
<tr>
<td>Average t₂-t₅</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Average t₆-t₉</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Adjustment t₂-t₅</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Adjustment t₆-t₉</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Real GDP growth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average t₂-t₅</td>
<td>-0.28</td>
<td>-0.40</td>
</tr>
<tr>
<td></td>
<td>(0.18)</td>
<td>(0.05)</td>
</tr>
<tr>
<td>Average t₆-t₉</td>
<td>-0.28</td>
<td>-0.40</td>
</tr>
<tr>
<td></td>
<td>(0.19)</td>
<td>(0.05)</td>
</tr>
<tr>
<td>Multilateral Disbursements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average t₀-t₁</td>
<td>-0.39</td>
<td>-0.25</td>
</tr>
<tr>
<td></td>
<td>(0.07)</td>
<td>(0.24)</td>
</tr>
<tr>
<td>Average t₂-t₅</td>
<td>-0.39</td>
<td>-0.25</td>
</tr>
<tr>
<td></td>
<td>(0.07)</td>
<td>(0.24)</td>
</tr>
<tr>
<td>Average t₆-t₉</td>
<td>-0.39</td>
<td>-0.25</td>
</tr>
<tr>
<td></td>
<td>(0.07)</td>
<td>(0.24)</td>
</tr>
<tr>
<td>Adjustment t₂-t₅</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Adjustment t₆-t₉</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Staff calculations.

¹ In percent of GDP.
² Change in average during four-year period compared to average in t₀-t₁ or the previous four-year period.
³ Change in external debt at end of four-year period compared with value at end of t₆ or the end of the previous four-year period.
| General Government Balance\(^1\) | | | | External debt\(^2\) | | | |
|---|---|---|---|---|---|---|
| Average | Adjustment\(^2\) | Change\(^3\) | | | | |
| | | | | | | |
| \(t_2-t_9\) | \(t_2-t_5\) | \(t_1-t_9\) | \(t_2-t_5\) | \(t_5-t_1\) | \(t_2-t_5\) | \(t_6-t_9\) | 0.07 | |
| 0.58 | 0.57 | - | -0.43 | - | 0.07 | - | |
| (0.00) | (0.00) | - | (0.04) | - | (0.74) | - | |
| 0.46 | - | - | - | - | - | - | |
| (0.03) | - | - | - | - | - | - | |
| - | 0.49 | 0.34 | - | -0.41 | - | 0.16 | - |
| (0.02) | (0.01) | (0.11) | (0.05) | - | (0.48) | - | |
| - | - | 0.29 | - | - | - | - | |
| - | - | - | - | 0.54 | - | - | |
| (0.16) | (0.01) | - | - | 0.30 | - | - | |
| -0.19 | - | - | - | - | - | - | - |
| (0.36) | - | - | - | - | - | - | - |
| -0.12 | - | -0.14 | - | -0.12 | - | - | - |
| (0.57) | (0.53) | (0.57) | - | - | - | - | - |
| - | - | 0.20 | - | 0.17 | - | -0.34 | - |
| - | - | (0.36) | (0.43) | - | (0.10) | - | - |

Debt Accumulation in the CIS-7 Countries
Large Exogenous Shocks During the Transition

The Russian crisis had a significant effect on external current account balances and external debt profiles.\(^{17}\) External demand and the terms of trade worsened in the CIS-7 (Figure 2.9). Some countries like Georgia and Armenia experienced armed internal conflicts.

Policy Performance

For policymakers, policy planning involved significant uncertainties, as both transition paths and steady states were largely unknown. Notwithstanding these problems, it is clear in hindsight that there was insufficient adjustment of policies, particularly at the initial stages of transition. Both stabilization and structural reform policies were not sufficiently ambitious not only in achievements but also in targets. It took a long time for credit to tighten and for the economies to stabilize from high inflation levels. Fiscal policy was also expansionary in the initial years. Interestingly, fiscal consolidation in the later years did not translate into concurrent external adjustment (Figure 2.8). As regards structural reforms, the pace was much slower than other transition countries (Table 2.4). In particular, the slow liberalization of the external regime is also likely to have hindered export growth initially (Figure 2.9).

Donor Financing and Overoptimism

Donor financing, though gradually declining over time, has been relatively high as a share of GDP. Apart from initial energy-related loans by Russia and Turkmenistan that were closer to commercial terms, financing during the transition has generally been on concessional terms. It can be argued that official financing may have contributed to the present debt problems because it allowed for delaying of the needed adjustment. Figure 2.16 illustrates how official financing, especially by multilateral financial institutions, accommodated the external imbalances of the CIS-7 countries. Sample correlation coefficients support the following interpretation: higher multilateral disbursements are associated with larger external imbalances. The seemingly generous multilateral loans were, to some extent, the result of lower-than-expected growth, which made the related capital inflows more expansionary than originally envisaged. Simple correlation coefficients also suggest that, while official external financing accommodated large external imbalances, it also supported relatively stronger adjustment in the early stages of the transition (Table 2.3). Adjustment (the change in the external current account balance) was larger in countries that had higher official external financing both in levels and in terms of change.

\(^{17}\) See Gelos and Sahay (2000).
<table>
<thead>
<tr>
<th>Eastern European Countries and the Baltics</th>
<th>Initial Reform Level at $T_0$</th>
<th>End of Early Transition Period $(T_1)$</th>
<th>End of Second Transition Period $(T_2)$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albania</td>
<td>21</td>
<td>14</td>
<td>17</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>10</td>
<td>19</td>
<td>8</td>
</tr>
<tr>
<td>Croatia</td>
<td>7</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Estonia</td>
<td>7</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Hungary</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Latvia</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Lithuania</td>
<td>11</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Macedonia, Rep. of Former Yugoslavia</td>
<td>7</td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>Poland</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Romania</td>
<td>18</td>
<td>18</td>
<td>10</td>
</tr>
<tr>
<td>Slovak Republic</td>
<td>3</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Commonwealth of Independent States</th>
<th>Initial Reform Level at $T_0$</th>
<th>End of Early Transition Period $(T_1)$</th>
<th>End of Second Transition Period $(T_2)$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armenia</td>
<td>13</td>
<td>16</td>
<td>12</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>21</td>
<td>21</td>
<td>20</td>
</tr>
<tr>
<td>Georgia</td>
<td>20</td>
<td>12</td>
<td>21</td>
</tr>
<tr>
<td>Kyrgyz Republic</td>
<td>12</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>Moldova</td>
<td>14</td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>15</td>
<td>22</td>
<td>21</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>21</td>
<td>20</td>
<td>22</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Others</th>
<th>Initial Reform Level at $T_0$</th>
<th>End of Early Transition Period $(T_1)$</th>
<th>End of Second Transition Period $(T_2)$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belarus</td>
<td>15</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>15</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Russia</td>
<td>6</td>
<td>8</td>
<td>17</td>
</tr>
<tr>
<td>Turkmenistan</td>
<td>24</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>Ukraine</td>
<td>18</td>
<td>17</td>
<td>19</td>
</tr>
</tbody>
</table>

Source: EBRD, Transition Report, various issues.

1. The overall EBRD structural reform index is the unweighted average sectoral reform indices (data availability for some of the indices varies over time and country).
2. Data for $T_1$ rather than $T_0$.  

Debt Accumulation in the CIS-7 Countries
Figure 2.10. CIS-7: Exports, Imports, and Multilateral Disbursements Compared with Other Transition Countries

(Averages of CIS-7 countries (solid line) compared with averages of other transition economies (dashed line).)

Exports (goods and services)

Imports (goods and services)

Long-Term Debt Disbursement (including IMF purchases)

Disbursements by Multilaterals (including IMF purchases)

Source: WEO database.

'Time axis is in transition time. T0 denotes the year in which the transition started. The dates were taken from Fischer and Sahay (2000).
**External Adjustment: Econometric Evidence**

Multivariate cross-section regressions for 25 transition economies were carried out to examine the relative importance of the factors listed above and, thereby, explain the differences in adjustment patterns among transition economies. External adjustment is measured by the change in the primary external current account (in percent of GDP) in the estimated equation below:

\[
\Delta \bar{Ca}_{t,t+3} = \alpha + \beta_1 \Delta \bar{a}_{t+1} + \beta_2 \Delta \bar{g}_b_{t+1} + \beta_3 \Delta Y_{t,t+3} + \beta_4 \Delta \bar{f}_{t+3} + \beta_5 \Delta X^*_{t,t+3} \\
+ \beta_6 \Delta \bar{T}_{t+3} + \beta_7 \Delta \bar{P}_{t+4} + \beta_8 \Delta \bar{F}_{t+3} + \epsilon_{t,t+3}.
\]  

(1)

Variables in small letters are in percent of GDP, a $\Delta$ in front of a variable indicates a change against the previous period, and a bar over a variable denotes an average over a transition phase. The combination of a $\Delta$ and a capital letter variable indicates a percentage change. To illustrate the notation: $\Delta \bar{Ca}_{t,t+3}$ denotes the change in the average external current account balance as a percent of GDP in the phase starting in $t$ and ending in $t+3$ compared to the average during the previous phase. Thus, the goal is to explain the change in the primary external current account balance ($ca$) by relating that change to the initial primary external current account ($ca_i$), the general government balance ($gb$), the level of GDP ($Y$), disbursements by multilateral financial institutions ($of$), foreign demand ($X^*$), the terms of trade, the EBRD index of domestic price liberalization ($PL$), and the EBRD index of foreign exchange and trade liberalization ($FTL$).

The rationale behind the specification closely follows the hypotheses in the previous section: most variables are measured as changes because we are interested in adjustment. The initial current account imbalance is measured in levels to determine if adjustment was more difficult as the initial imbalances increased. Similarly, the disbursements by multilateral financial institutions is measured in levels as well, given the conjecture that higher donor financing may have discouraged adjustment.

Table 2.5 reports the result for the early transition phase, which is most relevant for this discussion. We report the results only for the early transition years because our main interest is in understanding how debt built up so quickly at the start of the transition. The first column shows the full equation as specified above. The second column is a parsimonious reduction and only includes variables that turned out to be significant at the 10 percent level. To be precise, we tested for the joint exclusion of all variables that did not meet the 10 percent benchmark significance levels before excluding them. Standard errors are heteroskedasticity consistent. The final column uses a weighted absolute distance estimator to check the robustness of the results with regard to outliers in our relatively small sample. The results suggest that, while the magnitudes of some coefficients vary with the estimator, the qualitative implications are generally robust, except for the foreign demand variable, which turns insignificant with the robust estimator.
<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Estimator</th>
<th>OLS</th>
<th>OLS</th>
<th>Robust</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OLS</td>
<td>OLS</td>
<td>Robust</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-0.66</td>
<td>-0.64</td>
<td>-0.79</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.087)</td>
<td>(0.060)</td>
<td>(0.089)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.37</td>
<td>0.40</td>
<td>0.34</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.132)</td>
<td>(0.100)</td>
<td>(0.129)</td>
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</tr>
<tr>
<td></td>
<td>-0.91</td>
<td>-1.04</td>
<td>-0.77</td>
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</tr>
<tr>
<td></td>
<td>(0.524)</td>
<td>(0.547)</td>
<td>(0.425)</td>
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<tr>
<td></td>
<td>0.16</td>
<td>0.12</td>
<td>0.11</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.051)</td>
<td>(0.051)</td>
<td>(0.052)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.32</td>
<td>7.87</td>
<td>106.65</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.955)</td>
<td>(3.461)</td>
<td>(48.935)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>175.74</td>
<td>156.17</td>
<td>106.65</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(63.363)</td>
<td>(59.008)</td>
<td>(48.935)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-3.791</td>
<td>-1.021</td>
<td>0.939</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(4.403)</td>
<td>(0.901)</td>
<td>(0.936)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.699</td>
<td>2.872</td>
<td>2.766</td>
<td></td>
</tr>
</tbody>
</table>

Source: Staff calculations.
1See text for details. Constant is not reported.
The results suggest that initial conditions (captured by the initial primary current account imbalances), fiscal imbalances, official financing, terms of trade, and foreign demand (exports) were associated with external adjustment during the early transition phase, albeit to varying degrees. All the coefficients are significant, and their signs are consistent with our priors. While fiscal imbalances are reflected in external imbalances, the relationship is not strictly proportional. The level of disbursements by multilateral financial institutions had a negative effect on the external adjustment during the early transition phase, as conjectured, although this effect is only significant at the 10 percent level. The coefficient on the GDP is positive and significant, suggesting that output declines lowered the external adjustment above and beyond the fiscal channel. Interestingly, the structural reform indices (domestic and external liberalization) turned out to be insignificant, indicating that although structural reforms proceeded slower than anticipated, a slow pace was not the main constraint on external adjustment. Overall, the regressors explain more than 90 percent of the variation in the change of the average external current account balance.18

**What Has the Debt Accumulation Financed?**

From a policy perspective, it is critical to know whether the accumulation of external debt financed consumption or investment, particularly investments in reforms. If it is the latter, the outlook for the debt burden and sustainability in the medium term would not be quite as worrisome.

Given that the CIS-7 economies started out with suppressed consumption levels, an initial jump in consumption at the early stages of transition was to be expected—this occurred also in the better performers of Eastern Europe at the start of their transition.19 Such a jump would also be consistent with the permanent productivity increase hypothesis discussed above because permanent income increases ahead of actual income. Indeed, consumption in the CIS-7 countries in the initial phase increased sharply (Figure 2.11).20 The fact that real exchange rate appreciation was much faster in the CIS-7 economies than in other transition countries is consistent with the pattern of debt-financed consumption booms. The investment dynamics, however, have differed between the two groups of countries. In the CIS-7 countries, gross fixed-capital formation as a percent of GDP has declined, on average, over time. In other transition countries, investment ratios have fluctuated around 23 percent of GDP during the entire transition.

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18 We experimented with other specifications as well. For example, we estimated equations that used the change in official financing (as a percent of GDP) rather than the level. The main conclusions remain similar. We also re-specified our original equation using two-year rather than four-year averages for the regressors and the dependent variable. Interestingly, disbursements by multilateral institutions now appear more important in explaining the adjustment dynamics during the first two-two-year periods, while the general government balance becomes insignificant.


20 As a caveat, we note that the averages for the early years of the transition exclude the data for some CIS-7 countries because they did not report national accounts data by expenditure in the early phases of the transition.

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Debt Accumulation in the CIS-7 Countries

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In sum, Figure 2.11 suggests that the accumulation of external debt in the CIS-7 countries has largely financed higher consumption as a share of GDP. On closer examination, a large part of this consumption appears to be related to energy products. When consumption is measured in real terms (rather than as a share of GDP), the picture is somewhat more sobering. The across-the-board collapse of output combined with inflationary bursts at the start of transition hurt real consumption substantially. This was reflected in rising poverty levels and mortality rates.

**Conclusion and Policy Implications**

Starting from virtually no debt in 1992, external debt ratios in the CIS-7 countries worsened rapidly. This debt buildup occurred even as their currencies appreciated and the average interest rate on the debt declined during the years 1992-2001. A large and increasing share of the debt was to multilateral institutions, especially the IMF and the World Bank.

Much of the CIS-7 debt problems today can be traced to a combination of adverse initial conditions—the cutoff of subsidies from Moscow, the breakdown of Comecon trade, the dismantling of the planned system, and large terms-of-trade shocks as energy prices rose to near commercial terms—coupled with external shocks during the transition (the Russian crisis in 1998 and internal armed conflict in some countries), and delayed macroeconomic policy response, availability of multilateral loans, biased growth projections, overoptimism on the part of official lenders regarding macroeconomic policy performance, and considerable statistical uncertainty.

While it is always hard to assess the right combination of adjustment and financing for countries facing large macroeconomic imbalances, three points are worth noting in the context of the CIS countries. First, financing the large current account and fiscal deficits with loans required the clear expectation of rapid productivity increases, which did not happen fast enough. Output continued to decline for a considerable period, and the growth pickup was slow. Debt ratios, therefore, rose rapidly. Second, because financing was not accompanied by faster adjustment, it can be argued that multilateral aid abetted the delayed adjustment in the CIS-7. In the absence of any form of financing, the countries would have been forced to sharply reduce their current account deficits, mainly by cutting back on imports. This, however, would likely have entailed huge social costs such as unemployment and a rise in poverty and mortality rates. Consequently, if rapid adjustment were neither feasible, because the initial conditions were too harsh or the institutional capacity to implement reforms were rudimentary, nor desirable, because it would have entailed even larger social costs, the financing gap in the initial years should have been closed by external grants. Would such grant aid have been forthcoming had the transition path been predicted accurately? We do not know.
Figure 2.11. CIS-7: Consumption and Investment Compared with Other Transition Countries¹
(Averages of CIS-7 countries (solid lines) compared with median of other transition economies (dashed lines))

Total Consumption

Gross Fixed Capital Formation

Source: WEO database.
¹ The averages were computed on the basis of incomplete data. For some countries, consumption data are not available, while for many they were not available for the later stages of the transition. Annual averages were computed with the available data. Time axis is in transition time. T0 denotes the year in which the transition started. The dates were taken from Fischer and Sahay (2000).
\[ f_{t_0 + j} - f_{t_0}, \]

and the external current account in period \( j \) to the sum

\[ -\sum_{k=1}^{L} c_{t_0 + k}, \]

where \( t_0 \) refers to the beginning of the transition.

For the decomposition of the forecast errors for the external debt-to-GDP ratios, we had to make a few simplifying assumptions, given differences in reporting across time and countries. In particular, we used the external current account balance, including interest payments on external debt, rather than the primary external current account balance. This seems an acceptable simplification, given that interest rates on the CIS-7 countries' external debt were low and stable. The decomposition is based on a first-order approximation of the contribution of forecast errors in the constituent elements of the debt-to-GDP ratio to the forecast error in that ratio. Specifically, the forecast error in the external debt ratio in period \( t+h \) is decomposed as follows:

\[
\begin{align*}
  f_{t+h} - f_{t+h|t} &= -n_{t+h|t} \left( \frac{N_{t+h} - N_{t+h|t}}{N_{t+h|t}} \right) + \\
  &\left( f_{t|t} - n_{t+h|t} \left( \frac{Y_{t+h} - Y_{t+h|t}}{Y_{t+h|t}} \right) \right) + f_{t|t} \left( \frac{F_{t} - F_{t|t}}{F_{t|t}} \right),
\end{align*}
\]

where \( N \) denotes the sum of the external current account balance, non-debt creating FDI inflows, and the residual \( Z \), where \( t+h|t \) denotes the forecast of a variable in \( t+h \) prepared in \( t \), and where \( Y \) is now the GDP in U.S. dollars (as above, a small letter variable stands for a ratio). This formula allows for subsequent revisions in initial values, as the notation \( t|t \) suggests. With the sign \( \approx \), we draw attention to the fact that this approach only provides a rough approximation, as it does not take into account higher-order terms in the forecast errors of the constituent elements of the external debt ratio.
References


3

The International Community and the CIS-7 Countries

Philip R. Lane*

Overview

Without doubt, the collapse of the communist bloc and the dissolution of the Soviet Union during 1989-1991 represented the largest regime change experienced in the world since the 1940s. In terms of economic policy, the countries that emerged from the Soviet bloc faced major challenges in terms of re-molding institutions and markets to deliver growth and prosperity for their citizens. The scale of the adjustment problem was most acute for the countries in the former Soviet Union. These countries had economic structures that were directed toward fulfilling specialized roles within the Soviet central planning system: for this group, the challenge of building self-functioning market-based economies was especially severe.

From the beginning, the international community recognized that assistance should be provided to help in the transition process in Central and Eastern Europe and the newly independent states of the former Soviet Union. Regarding the latter group, the Economic Declaration of the July 1992 G-7 Munich Summit promised

"We offer the new States our help for their self help."

This position recognized that the primary responsibility for development resided with the countries of the former Soviet Union but that their efforts should be supported and facilitated by international aid. The G-7 Munich declaration went on to state

"We welcome the membership of the new States in the IFIs. This will allow them to work out economic reform programs in collaboration with these institutions and on this basis to make use of their substantial

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1 The text is available at the G-7 website maintained by the University of Toronto: http://www.g7.utoronto.ca.

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financial resources. Disbursement of these funds should be linked to progress in implementing reforms."

The international community thereby charged the international financial institutions (IFIs) with a central role in assisting the development efforts of these countries. In tandem with their new responsibilities in the other transition countries in Central and Eastern Europe, this represented a major new challenge for the multilateral organizations.

This statement also explicitly highlighted the importance of conditioning financial support to the country authorities' successful restructuring of their economies; it was envisaged that aid would be allocated in a discriminating fashion, and the withdrawal of support was threatened for nonperformers. The text also indicates the desirability of a partnership model by which these countries would actively contribute to the design of the reform programs that would be approved by the IFIs.

The goal of this paper is to examine the contribution of the international community to the development efforts in the CIS-7 countries. The primary focus is on the role played by the IFIs that have been active in these countries—the IMF, the World Bank, the European Bank for Reconstruction and Development (EBRD), and the Asian Development Bank—in line with their predominant role as the main conduits for international assistance to these countries. We will also address the other mechanisms by which the international community influences the development of these countries.

The structure of the rest of the paper is as follows. In the second section, we briefly review the debate about appropriate strategy for transition countries. Some basic facts about the CIS-7 countries are presented and discussed in the third section. The fourth section describes and analyzes the involvement of the IFIs in the CIS-7 economies. We turn in the fifth section to addressing the future role of the international community in assisting the CIS-7 countries. Finally, some concluding remarks are offered in the last section.

The Transition Debate

From the beginning, there was little disagreement among analysts that the ultimate goal was to establish market-based systems in the transition countries. Moreover, it was also widely accepted that macroeconomic stabilization was a required component of any reform strategy.

Beyond those core elements, there has been considerable debate about the relative merits of "big bang" versus "gradualist" approaches to reform. Adherents to the former approach took the view that it was best to move rapidly in establishing a market-based system, liberalizing prices and trade as quickly as possible and moving enterprises out of state hands through small- and large-scale privatization programs. At a political economy level, it was argued that a rapid transition would prevent the emergence of blocking coalitions of antireformist groups that gained from the status quo or feared change.
Proponents of gradualism argued that it inevitably takes time to establish the institutions required to ensure that markets operate efficiently and to avoid excessive social disruption. Indeed, there is no unique set of institutions that is required to have a successful market economy. In this regard, the industrial countries vary quite significantly in terms of legal codes, welfare programs, and financial systems.

Moreover, gradualists claim that popular support for reform could actually be enhanced by a partial, gradualist approach: for instance, a targeted initial reform may assuage fears and in itself create new interest groups that will support and lobby for stages of reform.\(^2\)\(^3\) With respect to building institutional capacity, even big bang adherents recognized the importance of devoting resources to establishing appropriate legal codes and regulatory and tax systems.

At an intermediate level, it seems sensible to hold the position that the appropriate speed and nature of reform will differ across countries depending on their initial and economic structures.\(^4\) In contrast, countries that began reform as agricultural-oriented rural economies with limited social welfare systems, such as China in 1978, could perhaps afford to take a more gradualist approach. Even the reform of agriculture was easier in China than in the former Soviet Union, due to peasant farming in the former as compared to the collectivized farm system established under Soviet rule.

International and locational aspects also determine the nature of reform efforts in countries.\(^5\) In their framework, institutions vary across countries and must be discovered through policy experimentation. A country that is a close neighbor to a leader has the option to imitate that country's institutions, and, being fundamentally similar, this is likely to be a successful strategy. At the other extreme, a remote country may not enjoy the demonstration effect provided by a neighboring leader but may achieve success through unfettered experimentation. Because remote countries experiment in order to identify appropriate institutional structures, it also follows that there is likely to be a high variance in outcomes among this group.

The worst off are the intermediate countries. These may be tempted to imitate a leader that is not too far away, but this may be a flawed strategy because their structural differences are such that attempts at institutional transplantation may fail. An additional prediction of this theory is that corruption is an increasing function of remoteness: governments in countries that are closer to leaders are more constrained in their actions.

Mukand and Rodrik conduct an empirical test using the growth and reform experiences of the post-socialist countries. They find a U-shaped relation between growth and distance from the European Union (EU), which is the natural leader

\(^2\) See Roland (2001) for a presentation of the gradualist viewpoint.\(^3\)
\(^3\) Against this view, Fischer (2001) points out that this approach assumes that there exists a degree of political stability and a capacity to forecast the impact of specific reforms, which was absent in many transition countries, most particularly in the CIS.
\(^4\) For instance, Sachs (1996) argues that a big bang approach was desirable for countries in Eastern Europe and the former Soviet Union that were highly urbanized, with extensive social welfare systems and large state-owned industrial sectors that needed rapid dismantling.
\(^5\) See Mukand and Rodrik (2002).
for these countries. The fastest-growing transition countries have been those closest to the European Union, but the more remote countries—Kazakhstan, the Kyrgyz Republic, and Uzbekistan—have done better than intermediate cases, such as Azerbaijan, Georgia, Moldova, Russia, and the Ukraine. Although intriguing, the Mukand-Rodrik hypothesis only explains the dire performance of a remote country such as Tajikistan by attributing it to institutional experimentation that ex post proved to be a failure. Moreover, it is plausible that Russia, rather than the European Union, is the natural anchor for these countries: the instability of the Russian reform process during the 1990s failed to provide much by way of positive example for the CIS-7 countries.

In terms of application to the CIS-7 countries, there are conflicting elements in this debate. At one level, very rapid reform may have been especially difficult for these countries in view of the scale of the development challenges they faced and the absence of a natural policy anchor, such as the prospect of eventual EU membership provided for the Central and Eastern European transition countries. In related fashion, the initial conditions and political structures of these countries presented the IFIs with a set of challenges different from the more advanced and Western-orientated transition countries. At another level, the debate on the sequencing of reforms is quite relevant for these countries; for instance, price liberalization has been considerably easier than tackling more deep-seated institutional deficiencies.

With respect to the political economy of transition, a slow pace of stabilization and reform has risked leaving some of these countries in an under-reform trap by allowing the formation and consolidation of antireform lobbies and political groups. In addition, it is unclear the extent to which the formation of dynamically sustainable, pro-reform coalitions can be easily predicted in societies with complex ethnic and political structures: designing an optimal gradualist transition strategy for such a country would have been extremely forbidding.

The CIS-7: Basic Features

It is well understood that during the period following the breakup of the Soviet Union, there was a much deeper and more prolonged initial output decline and delayed stabilization for the CIS-7 countries than for most of the transition economies in Central and Eastern Europe. In this regard, an obvious question to ask is whether the CIS-7 countries were slower reformers than other transition economies. To address this question, Table 3.1 reports the results for pooled regressions of the form,

$$ REFORM_{it} = \alpha + \beta \times CIS7_i + \epsilon_{it}, $$

where the dependent variable is one of the reform indices (indexed by $j$) reported by the EBRD in its *Annual Transition Report* and CIS7, is a 0–1 dummy variable

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6 See Åslund, Boone, and Johnson (2001).
Table 3.1. The CIS-7 and Reform: 1991–99
Panel Estimation

<table>
<thead>
<tr>
<th></th>
<th>CIS-7</th>
<th>Adj $R^2$</th>
<th>N</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price liberalization</td>
<td>-0.16</td>
<td>0.01</td>
<td>225</td>
<td>1991–99</td>
</tr>
<tr>
<td></td>
<td>(1.62)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trade liberalization</td>
<td>-0.86</td>
<td>0.09</td>
<td>225</td>
<td>1991–99</td>
</tr>
<tr>
<td></td>
<td>(4.91)**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small-scale privatization</td>
<td>-0.69</td>
<td>0.07</td>
<td>225</td>
<td>1991–99</td>
</tr>
<tr>
<td></td>
<td>(4.42)**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Large-scale privatization</td>
<td>-0.35</td>
<td>0.02</td>
<td>225</td>
<td>1991–99</td>
</tr>
<tr>
<td></td>
<td>(2.59)**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enterprise reform</td>
<td>-0.51</td>
<td>0.10</td>
<td>225</td>
<td>1991–99</td>
</tr>
<tr>
<td></td>
<td>(6.05)**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competition policy</td>
<td>-0.49</td>
<td>0.02</td>
<td>225</td>
<td>1991–99</td>
</tr>
<tr>
<td></td>
<td>(3.32)**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infrastructure reform</td>
<td>-0.56</td>
<td>0.12</td>
<td>50</td>
<td>1998–99</td>
</tr>
<tr>
<td></td>
<td>(3.30)**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Banking sector reform</td>
<td>-0.61</td>
<td>0.11</td>
<td>222</td>
<td>1991–99</td>
</tr>
<tr>
<td></td>
<td>(6.15)**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reform of nonbanking</td>
<td>-0.57</td>
<td>0.14</td>
<td>220</td>
<td>1991–99</td>
</tr>
<tr>
<td></td>
<td>(7.10)**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legal extensiveness</td>
<td>-0.30</td>
<td>0.02</td>
<td>70</td>
<td>1998–99</td>
</tr>
<tr>
<td></td>
<td>(1.68)*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legal effectiveness</td>
<td>-0.65</td>
<td>0.11</td>
<td>70</td>
<td>1998–99</td>
</tr>
<tr>
<td></td>
<td>(3.68)**</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: EBRD Annual Transition Reports.
1 t-statistics in parentheses; ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively.
that takes the value 1 for CIS-7 countries and 0 for the other transition countries. The data period is 1991–99, and the values of the EBRD indicators range from 0 to 4, with a higher value indicating a higher level of reform. With the exception of the price liberalization index, the CIS7 dummy variable is significantly negative in all cases, confirming that these countries as a group have lagged behind the reform efforts in other transition countries.7

Table 3.2 repeats the exercise for 1999, the last year in our dataset. At least for some categories, there is evidence of catch-up: the CIS7 dummy variable is no longer significant for trade liberalization, large-scale privatization, and the legal reform indicators. Significant differences in the level of reform between the CIS-7 countries and others in the transition group remain, however, for the other categories.

The CIS-7 countries were especially slow to reform in the initial 1991–94 period. In most cases, economic development and reform took second place to the struggle between rival blocs for political supremacy, spilling over into civil war in Tajikistan, a major insurgency in Georgia, the Transnistria conflict in Moldova, and the Armenia and Azerbaijan conflict over Nagorno-Karabakh. The comparative weakness of internal political systems in these countries put them at a substantial disadvantage compared to the majority of Central and Eastern European countries. In some cases, officials from the Russian minority within these countries were pushed out for political reasons, and their replacements lacked similar training or experience.

This brief review suggests that the CIS-7 countries as a group are indeed distinctive in terms of their transition experience. Although significant growth and reform have been achieved since the mid-1990s, these countries did not turn the corner as quickly as—and still lag largely behind—the more advanced transition countries in Central and Eastern Europe. In this context, it is important to address the question of how the international community, and the IFIs in particular, have performed in assisting the transition process in these countries and whether alternative strategies to those currently pursued can better tackle the considerable developmental challenges that still face these countries.

The IFIs and the CIS-7

As was noted in the introduction, the international community responded to the destruction of the communist bloc by charging the IFIs with the task of aiding the transition of the emerging postcommunist independent states to normal market economies. Indeed, the EBRD was established in direct response to this challenge as a complementary agency to the activities of the already-established multilateral institutions.

7 The explanatory power of these regressions is typically low. This is not surprising because we know that set of transition countries varies enormously across a range of dimensions. See de Melo and others (2001) and Falcetti, Raiser, and Sanfey (2002) for recent analyses of the determinants of reform efforts. Our purpose is merely to document a group difference in average reform efforts.
<table>
<thead>
<tr>
<th>(1) Price liberalization</th>
<th>-0.05</th>
<th>-0.04</th>
<th>25</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2) Trade liberalization</td>
<td>-0.29</td>
<td>-0.03</td>
<td>25</td>
</tr>
<tr>
<td>(3) Small-scale privatization</td>
<td>-0.40</td>
<td>0.03</td>
<td>25</td>
</tr>
<tr>
<td>(4) Large-scale privatization</td>
<td>-0.21</td>
<td>-0.03</td>
<td>25</td>
</tr>
<tr>
<td>(5) Enterprise reform</td>
<td>-0.46</td>
<td>0.11</td>
<td>25</td>
</tr>
<tr>
<td>(6) Competition policy</td>
<td>-0.45</td>
<td>0.09</td>
<td>25</td>
</tr>
<tr>
<td>(7) Infrastructure reform</td>
<td>-0.55</td>
<td>0.08</td>
<td>25</td>
</tr>
<tr>
<td>(8) Banking sector reform</td>
<td>-0.66</td>
<td>0.10</td>
<td>25</td>
</tr>
<tr>
<td>(9) Reform of nonbanking</td>
<td>-0.64</td>
<td>0.16</td>
<td>25</td>
</tr>
<tr>
<td>(10) Legal extensiveness</td>
<td>-0.36</td>
<td>0.01</td>
<td>25</td>
</tr>
<tr>
<td>(11) Legal effectiveness</td>
<td>-0.53</td>
<td>0.06</td>
<td>25</td>
</tr>
</tbody>
</table>

Source: EBRD Annual Transition Reports.

1. t-statistics in parentheses; ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively.
We can think of the IFIs as providing three kinds of assistance: policy advice, technical assistance, and financial support. With regard to the first category, and in line with its mandate, the IMF has taken the lead in providing advice on macroeconomic stabilization, balance of payments issues, and fiscal affairs. It has also advised in related areas (such as banking stability and banking regulation) and on broader items on the structural reform agenda.

In addition to advice on individual projects and sectoral issues, the World Bank has also been a lead advisor on structural adjustment, public finances, and financial sector reform. Policy surveillance and assessments are central to the regular Article IV missions conducted by the IMF and to the Country Assistance Strategy (CAS) reports prepared by the World Bank, in addition to influencing the conditions attached to the loan and assistance agreements that are negotiated with the individual countries. The policy advice offered by these institutions is now in principle integrated into the Poverty Reduction Strategy Paper (PRSP) process, as discussed later.

At one level there is a broad consensus about the correct ultimate policy targets for these countries. In addition to macroeconomic stability, obvious elements of reform include price and trade liberalization, privatization of small- and large-scale enterprises, the provision of basic infrastructure, the establishment of an investment-friendly business environment, and the implementation of appropriate legal codes and appropriate regulatory structures. Of course, even with a general acceptance of the desirability of all these elements of reform, this still leaves plenty of room for debate about appropriate sequencing and the relative priorities among this wish list. There also remains the core issue for the IFIs of the appropriate financing of national development strategies. In addition, the coordination of policy advice to ensure a consistent and streamlined framework presents a considerable management challenge for the multilateral agencies.

Evaluating the quality of policy advice from the IFIs, however, is extremely problematic. Sovereign nations are free to disregard or implement only loosely external policy advice, such that economic outcomes cannot be closely linked to the policy advice given. Of course, economic performance is also influenced by various shocks that may disrupt the forecasts generated by policy analysts. In addition, country reports by the IFIs do not reveal the full degree of interaction between staff members and the national authorities in policy formation: policy errors may be avoided by private and informal interventions, and published documents tend to focus only on a negotiated list of specific policy recommendations rather than on the entire dynamic process of interaction between external advisors and domestic policymakers.

Turning to the policy record of the CIS-7 countries, it seems apparent that the major problem so far has been a failure to implement reforms sufficiently rather than the adoption of possibly erroneous policies that were recommended by the external agencies. A more serious concern relates to advice concerning financial
policy, in view of the high debt burdens in some of these countries: we turn to this issue below.

At a more challenging level, it could also be argued that the IFIs might have done more to understand the political obstacles to rapid reform in the CIS-7 countries and to assist in the design of appropriately gradualist strategies that build a reform momentum cumulatively. Aside from the difficulty of correctly selecting such strategies in real time and without the benefit of hindsight, the fundamental issue is was it appropriate for the IFIs to become too involved in domestic political decisions.

In terms of technical assistance, these institutions devoted considerable resources providing technical advice to the CIS-7 and other transition countries. This took various forms: from short-term training courses to financing long-stay technical experts to advise on the establishment of central banks, budgetary procedures, corporate and bankruptcy law, and financial regulation.

The delivery of such technical assistance presented the multilaterals with substantial resource and logistical demands. The success of these programs was inevitably greater in the more straightforward areas, such as the establishment of a functioning central bank, than in achieving rapid progress in improving the quality of governance in softer areas, such as establishing a predictable rule of law. It also relied on domestic governments to exploit the lessons from short-term training modules and to use long-stay resident advisors efficiently. To a significant degree, the flow of trained personnel from the public to the private sector, especially in the financial sector area, meant that much technical assistance required periodic repetition to train new cohorts of policy officials. This cannot, however, really be interpreted as being of zero value in that there is a social benefit to building up the expertise of the private sector in these countries.

Table 3.3 reports aggregate aid flows to the CIS-7 countries over 1995–2000. Overall, aid flows have represented a considerable portion of national incomes. There has also been substantial cross-country variation, however: average aid flows ranged from only 1 percent of GDP for Uzbekistan to 16.9 percent for the Kyrgyz Republic. This variation is not correlated with output per capita (the correlation is an insignificant −0.06) or with the extensiveness of reform (the correlation with a composite of the EBRD indicators is only −0.12).

Table 3.4 reports some broad external debt statistics for the CIS-7 countries for the years 1995 and 2000. We take 1995 as a useful initial reference point because lending to most of the CIS-7 countries was more restricted before 1995 due to political instability and internal military conflicts. Moreover, there was an initial bilateral learning period, as the IFIs studied these little-known economies and the governments of these countries gained awareness of the financing options that were available from the multilaterals. The failure to achieve early macro-

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9 In some cases (e.g., Tajikistan in 1993), the World Bank provided grant aid to assist the government in managing and making effective use of external assistance. See also Zecchini (1995).

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The International Community and the CIS-7 Countries 59
Table 3.3. Total Aid Flows to the CIS-7
(As a percentage of gross national income)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Armenia</td>
<td>7.6</td>
<td>18.3</td>
<td>10.1</td>
<td>7.5</td>
<td>11.3</td>
<td>11.2</td>
<td>11.0</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>4.9</td>
<td>3.1</td>
<td>4.7</td>
<td>2.3</td>
<td>3.7</td>
<td>2.8</td>
<td>3.6</td>
</tr>
<tr>
<td>Georgia</td>
<td>11.5</td>
<td>10.3</td>
<td>6.5</td>
<td>4.6</td>
<td>8.4</td>
<td>5.6</td>
<td>7.8</td>
</tr>
<tr>
<td>Kyrgyz Republic</td>
<td>19.5</td>
<td>12.9</td>
<td>14.1</td>
<td>14.4</td>
<td>24.1</td>
<td>16.7</td>
<td>16.9</td>
</tr>
<tr>
<td>Moldova</td>
<td>2.2</td>
<td>2.1</td>
<td>3.3</td>
<td>2.3</td>
<td>8.9</td>
<td>9.0</td>
<td>4.6</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>2.9</td>
<td>10.4</td>
<td>9.6</td>
<td>8.4</td>
<td>11.9</td>
<td>15.2</td>
<td>9.8</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>0.8</td>
<td>0.6</td>
<td>1.0</td>
<td>1.1</td>
<td>0.9</td>
<td>1.4</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Source: World Bank, World Development Indicators online database.

Economic stabilization also disqualified these countries from significant levels of funding during the initial years following independence.

Since 1995, the CIS-7 countries have experienced sharp increases in the ratio of external debt to output; debt growth was most dramatic in the Kyrgyz Republic, Moldova, and Tajikistan. The fallout from the ruble devaluation by Russia in 1998 also contributed to the adverse debt dynamics because many of these countries responded with large depreciations vis-à-vis the U.S. dollar that had the effect of increasing the real burden of foreign currency debt liabilities.

Excessive debt levels are now a concern in several of these countries. Georgia and the Kyrgyz Republic have both negotiated Paris Club agreements (in 2001 and 2002, respectively) that have led to some reduction and rescheduling of bilateral debts, and others (e.g., Armenia and Moldova) have also renegotiated debts with some individual creditors.10

Apart from oil-rich Azerbaijan, debt liabilities are overwhelmingly long term in maturity. As is clear from Table 3.4, however, this does not reflect a capacity to issue long-term debt to private investors but rather a heavy reliance on official financing. In some countries (Moldova, Tajikistan, and Uzbekistan), long-term debt owed to private institutions has increased noticeably. The large rise in official external debt relative to output during this period does not suggest an unwillingness by the IFIs to provide financing for these countries. Indeed, it may even represent overlending to the extent that borrowed funds were inefficiently deployed and the accumulated debt burden is constraining the development of the economy.10

See http://www.clubdeparis.org for details. Debt-equity swaps and other conversion arrangements have also been part of these debt renegotiations.
strategy in some of these countries. In turn, overlending may be the result of excessive optimism on the part of the multilaterals in terms of the anticipated growth performance of these economies, or it may reflect an inability to deprive badly behaved governments of official funding. In the latter case, international resources are wasted, and debtor moral hazard is encouraged, in that failure to reform need not involve sustained suspension from borrowing. The IFIs may, in the short term, raise the specter of nonagreement to a new financial program or to disbursement of certain funds, but the pressure to stay engaged in such countries means that it is much more difficult to withdraw from lending for a longer period of time.

The terms of multilateral financing are an important topic for debate. There have been several prominent calls for a shift toward concessional loan terms and outright grants in financing low-income reformist countries. In this regard, there is considerable variation among the CIS-7 countries, as shown in Table 3.5. At one extreme, the poorest country, Tajikistan, has enjoyed concessional terms on almost all of its multilateral debt. At the other extreme, the multilateral debt of Uzbekistan has been incurred almost entirely at nonconcessional terms. This mix has also changed over time. For instance, World Bank lending has increasingly taken the form of concessional IDA loans.

<table>
<thead>
<tr>
<th></th>
<th>Debt/GNI</th>
<th>LT/Total</th>
<th>MLT</th>
<th>BILAT</th>
<th>BANK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armenia</td>
<td>13</td>
<td>46</td>
<td>80</td>
<td>76</td>
<td>70</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>11</td>
<td>24</td>
<td>64</td>
<td>58</td>
<td>48</td>
</tr>
<tr>
<td>Georgia</td>
<td>68</td>
<td>54</td>
<td>84</td>
<td>80</td>
<td>24</td>
</tr>
<tr>
<td>Kyrgyz Republic</td>
<td>19</td>
<td>150</td>
<td>78</td>
<td>85</td>
<td>39</td>
</tr>
<tr>
<td>Moldova</td>
<td>23</td>
<td>91</td>
<td>66</td>
<td>85</td>
<td>47</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>28</td>
<td>125</td>
<td>93</td>
<td>85</td>
<td>0</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>—</td>
<td>—</td>
<td>79</td>
<td>91</td>
<td>17</td>
</tr>
</tbody>
</table>


1 Debt/GNI is the ratio of total external debt to gross national income.
2 LT/Total is the ratio of long-term to total external debt.
3 MLT, BILAT, and BANK refer to the shares of long-term debt that are owed to the multilateral institutions, bilateral donors, and private lenders, respectively.
Facility (PRGF) program at the IMF has also improved the generosity of the terms of its lending to these countries.

Having described the financial support provided by the IFIs to the CIS-7 countries, we turn now to asking some questions about the effectiveness of multilateral lending to this pool of countries. In Table 3.6, we examine whether an increase in multilateral debt is associated with an increase or decrease in other sources of financing, such as bilateral debt and private debt. This is an important issue because it is essential to know the joint behavior of multilateral and other sources of funds in order to understand the total net impact on the recipient country. We have run regressions of the form

$$D^{X}_{it} = \alpha + \beta D^{MLT}_{it} + \epsilon_{it},$$

where $X$ denotes bilateral or private per capita debt and $MLT$ denotes multilateral debt. We consider two variants: pooled and fixed-effects specifications. From rows (1) and (2) of Table 3.6, we observe a positive relation between the levels of multilateral debt and bilateral debt. We do not claim to show that this is a causal relationship but merely that these variables are significantly correlated. A causality test would require much more information than is available. Regarding private debt, the pooled specification in row (3) does not show a significant relation with multilateral debt, but this is overturned in the fixed-effects specification in row (4). It is interesting to note that rows (2) and (4) yield the same point estimates:

<table>
<thead>
<tr>
<th>Country</th>
<th>IMF</th>
<th>World Bank</th>
<th>Regional Development Banks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armenia</td>
<td>79</td>
<td>98</td>
<td>—</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>—</td>
<td>100</td>
<td>—</td>
</tr>
<tr>
<td>Georgia</td>
<td>78</td>
<td>100</td>
<td>—</td>
</tr>
<tr>
<td>Kyrgyz Republic</td>
<td>—</td>
<td>100</td>
<td>78</td>
</tr>
<tr>
<td>Moldova</td>
<td>7</td>
<td>34</td>
<td>—</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>77</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>—</td>
<td>—</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: World Bank, World Development Indicators online database.

1 Ratio of concessional to total cumulative net financial flows.
the within-country comovement with respect to multilateral debt is the same for debt from private lenders as debt from bilateral creditors.

The fixed-effects results in Table 3.6 indicate that a credit multiplier does exist for the CIS-7 countries in the sense that multilateral debt appears to leverage bilateral and private lending. To some extent, this may be the deliberate result of cofinancing arrangements (e.g., between the EBRD and some bilateral donors). More generally, it reflects possibly the important role played by multilateral lending in signalling the quality of the investment climate in a given host country: if a country fails to qualify for multilateral financial assistance, it may be viewed as a poor candidate for bilateral or private funding. A more pessimistic interpretation runs along the overborrowing lines: in political settings where multiple powerful groups have access to fiscal resources, an increase in official financial assistance may prompt a disproportionate increase in inappropriate expenditures.\footnote{This is labelled the "voracity" effect by Tornell and Lane (1999); their theoretical model predicts that an increase in aid also generates an increase in other borrowings.}

The analyses in Tables 3.7–3.9 ask whether debt flows respond to reforms in the CIS-7 countries. The answer to this question may provide some information for the conditionality debate. The standard prescription is that well-behaved reformers should be rewarded with increased financial support, whereas funding cannot be justified for serial nonreformers. Indeed, nonreformers may benefit indirectly from exclusion from funding if it stimulates reform in these countries. Against this view, if the multilateral institutions play the role of creditors-of-last-resort for the international community, humanitarian considerations may militate against the denial of funding to a desperately poor country, regardless of its

| Table 3.6. Credit Multiplier and Multilateral Lending\footnote{t-statistics in parentheses; *** denotes significance at the 1 percent level. Rows (1) and (3) represent a pooled specification, while rows (2) and (4) represent a fixed-effects specification.} |
|-----------------|-------|------|-----|
|                 | Multilateral | Adj $R^2$ | $N$ |
| Bilateral       |        |       |     |
| (1)             | 0.16   | 0.06  | 41  |
|                 | (3.71)**|       |     |
| (2)             | 0.21   | 0.97  | 41  |
|                 | (9.44)**|       |     |
| Bank            |        |       |     |
| (3)             | 0.02   | -0.02 | 42  |
|                 | (0.34) |       |     |
| (4)             | 0.21   | 0.33  | 42  |
|                 | (3.23)**|       |     |

Source: Joint BIS-IMF-OECD-World Bank external debt database.
reform record. Moreover, it is reasonable to assume that, at least in some finely balanced political equilibria, a persistent lack of financing may diminish the probability of reform by increasing the influence of isolationists vis-a-vis outwardly orientated integrationist political blocs. Finally, another relevant consideration is that a country with a good reform record may be able to achieve access to private sources of credit and hence graduate from dependence on official financial flows.

Our regression specification is

$$FLOW^X_{it} = \alpha + \beta \text{REFORM}_{it-1} + \epsilon_{it},$$

where $FLOW^X_{it}$ is the year-$t$ per capita financial flow from lender class $X$ (multilaterals, bilaterals, and private banks) and $\text{REFORM}_{it-1}$ is the value of a given

<table>
<thead>
<tr>
<th>Table 3.7. Multilateral Debt Flows and Reward for Reform*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multilateral</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Price liberalization</td>
</tr>
<tr>
<td>(1) 16.31</td>
</tr>
<tr>
<td>(2) 1.50</td>
</tr>
<tr>
<td>Trade liberalization</td>
</tr>
<tr>
<td>(3) 3.44</td>
</tr>
<tr>
<td>(4) -9.35</td>
</tr>
<tr>
<td>SINDEX</td>
</tr>
<tr>
<td>(5) 3.41</td>
</tr>
<tr>
<td>(6) -21.30</td>
</tr>
<tr>
<td>MINDEX</td>
</tr>
<tr>
<td>(7) 0.97</td>
</tr>
<tr>
<td>(8) -21.10</td>
</tr>
</tbody>
</table>

$t$-statistics in parentheses; *** and ** denote significance at the 1 and 5 percent levels, respectively.

Sources: Debt data from joint BIS-IMF-OECD-World Bank external debt database; reform indicators from EBRD.

reform indicator from year $t-1$. In order to conserve space, we do not report results for each individual EBRD reform indicator. Rather, we just include the two most important economic reforms (price and trade liberalization) and two composite indicators (SINDEX and MINDEX). SINDEX is just the unweighted average of the EBRD indicators that were earlier reported in Tables 3.1 and 3.2. We also omit the legal reform indicators because these are only available for 1998 and 1999. We also include the geometric average of the variables (MINDEX), to allow for possible among the various components of structural reform. The time period is 1996–2000.

The results for the pooled specifications in Table 3.7 do indeed show a positive cross-country relation between the level of reform and financial flows from the

| Table 3.8. Debt Flows and Reward for Reform: Bilateral Flows$^1$ |
|-----------------|-----------------|-----|-----|-----|
|                 | Bilateral       | Adj $R^2$ | N   | FE  |
| Price liberalization | (1) -1.03       |   0.08  | 33  | No  |
|                   | (2) -1.12       |   0.47  | 33  | Yes |
| Trade liberalization | (3) 0.37        |   0.05  | 33  | No  |
|                   | (4) 0.17        |   0.63  | 33  | Yes |
| SINDEX           | (5) 2.68        |   0.08  | 33  | No  |
| MINDEX           | (6) 0.43        |   0.35  | 33  | Yes |
|                 | (7) 2.74        |   0.09  | 33  | No  |
|                 | (8) 0.35        |   0.35  | 33  | Yes |

Sources: Debt data from joint BIS-IMF-OECD-World Bank external debt database; reform indicators from EBRD.

$^1$ t-statistics in parentheses; ** and * denote significance at the 5 and 10 percent levels, respectively.

$^2$ As per Wolf (2002).
multilateral institutions: those countries that have done more to liberalize prices and trade receive more multilateral financial flows. The pooled results also confirm this for the key price liberalization and trade liberalization indices, such that these results hold across countries also. The pooled results are not significant only for the broader composite indices SINDEX and MINDEX, however: these variables are significant only along the time series dimension for multilateral flows. With the exception of the price liberalization variable, however, the fixed-effects specifications show that the within-country relation is actually negative: a country that improves its reform record experiences a decline in multilateral flows. As noted above, interpreting such a negative pattern is difficult. On the one hand, it may be consistent with the multilateral's failure to reward reform or, conversely, countries avoiding reform by relying on the availability of external financing. On the other hand, it may simply signal that reform improves access to private sources of financing.
The evidence for the relation between reform and bilateral financial flows is given in Table 3.8. In this case, we see no time series connection between reform and bilateral flows: a country that improves its reform performance does not experience greater bilateral financial inflows. At least for the composite indicators SINDEX and MINDEX, however, the pooled specifications do suggest that, in the cross section, those countries that are further along the reform path receive more bilateral support.

Finally, we turn to private debt flows in Table 3.9. The simple pooled specification does not do a very good job in explaining the cross-sectional variation in private debt flows: the results are typically insignificant, with the only exception being a positive relation between trade liberalization and private flows. The time series fixed-effects results are quite striking, however: if a country improves its reform record, it experiences a growth in private bank financial inflows. This result holds for trade liberalization, SINDEX, and MINDEX. The coefficient estimate for the price liberalization indicator is not significant. The lack of explanatory power for price liberalization throughout Tables 3.7–3.9 may just reflect that the major phase of price liberalization was largely completed before our sample period begins.

In combination with the fixed-effects results for multilateral flows in Table 3.7, the picture that emerges is reform tends to alter the composition of the source of financial flows away from multilaterals and toward private flows. Indeed, such a reconfiguration could be a desirable evolution as countries move up the reform ladder. To the extent that it does indeed reflect a failure of the multilaterals to sufficiently reward reform, however, it is potentially a cause for concern. Of course, the results presented here are only suggestive; a more comprehensive empirical framework would be required to test these hypotheses fully.

In summary, this section has reviewed some elements of the involvement of IFIs in the post-Soviet experiences of the CIS-7 countries. The institutions have certainly responded to the mandate of the international community to play an active role in the reform efforts of these countries on all fronts (policy advice, technical assistance, and financial support). Although errors have undoubtedly occurred—we will return to the high official debt burdens in some of these countries that are a matter for serious concern—it would be difficult to claim that the CIS-7 countries might have performed better without the intervention of these agencies. Nonetheless, the CIS-7 countries remain underdeveloped, as do many other low-income countries, and so it is appropriate to ask more from the IFIs in terms of finding new ways to promote development and growth.

**A New Role for the International Community in Assisting the CIS-7**

The past several years have seen much effort to reform the IFIs. Among the major influences on this debate have been the regular reviews at the G-7 summits. In addition, the U.S. Congress established an International Financial Institution Advisory Commission (the “Meltzer Commission”) that reported in 1999.
The institutions themselves have also responded with self-critical reports and the initiation of major changes in their organizational and operational structures.  

Although the reform agenda was inspired in part by the large-scale international financial crises that were experienced during the 1990s, there was also considerable dissatisfaction with the performance of the IFIs in assisting the development low-income countries. For instance, a 1998 World Bank report provided a severe critique of the failure of aid to improve performance in countries that maintained distorted policy regimes, whereas it confirmed that aid did indeed play a useful role in countries with sound management that were firmly on the reform path.

A central principle in this new thinking is that national development strategies are most effective if “owned” by the domestic society. Ownership is established by ensuring the participation of the broad political establishment, the social partners, and civil society in the process of designing and evaluating development strategies and targets. The role of the international community in this process is to provide external advice and technical support as needed and to ensure that the design of financial assistance programs is consistent with the domestic development strategy. Consistency involves both arranging the financing required to make the strategy feasible and setting conditions on aid that reinforce the incentives to fulfill the targets specified in the strategy document.

At one level, this is the very philosophy underlying the Poverty Reduction Strategy Paper (PRSP) process that has been adopted by the IMF and World Bank. In turn, the PRSP feeds into an overall Comprehensive Development Framework (CDF) process that attempts to marshall the advice and assistance coming from the World Bank’s Country Assistance Strategy (CAS), the IMF’s Poverty Reduction and Growth Facility (PRGF), and the policy frameworks of the other multilateral development banks and the United Nations.

In this way, it is hoped that the assistance provided by the international community can be better streamlined and coordinated across the various agencies. Moreover, a comprehensive framework may also improve efficiency through facilitating greater specialization by individual institutions. Emphasizing the goal of poverty reduction in low-income countries is also intended to sharpen the focus of the multilateral development banks and the work of the IMF in these countries.

Although it is difficult to argue against a holistic approach to understanding the development needs of each country, there is concern that an excessively broad agenda may lead to mission creep and a loss of focus for individual agencies. In particular, the involvement of the IMF in long-term poverty reduction programs is troubling to some, it a departure from its traditional mandate. The counter-argument, however, is that overall consistency requires that all institution
tions be involved in understanding the broad development strategy for each individual country. This is perfectly consistent with the need for the lending and policy surveillance activities of each agency to remain specialized. The IMF focuses largely on advising and monitoring performance in terms of the appropriate macroeconomic policies while the multilateral development banks are more involved in the sectoral and institutional elements essential in achieving progress on reform and structural change.

In terms of development priorities, it is also recognized that the IFIs need to insist on and support better governance in borrower countries. In addition to providing financial and technical assistance to improve the quality of public sector management, develop expenditure programs, and implement legal and regulatory codes and practices, this also involves regular monitoring of the performance of borrower countries in improving governance. By implication, a country that persists with inadequate governance structures and antidevelopmental policies may be deemed a poor candidate for continued financial support. Moreover, under such circumstances, financial assistance may do more harm than good if it is allocated to inappropriate projects or disappears through corruption.

Striking the correct balance on this issue poses a major challenge for the IFIs. On the one side, the withdrawal of support from a regime that fails to promote development must be seen as a credible threat: there have to be circumstances under which this option is exercised. Given the poor reform record of the CIS-7 countries and the observed accumulation of high levels of external debt, the existing evidence suggests that this option could have been exercised at an earlier point in some of these countries. Although some factors behind the increase in the debt burden may not have been easy to forecast (e.g., the spillover from the 1998 Russian ruble devaluation and debt default), it is arguable that the multilaterals were too willing to lend to countries that had a small, short-term likelihood of engaging in reform. Of course, this kind of lending pattern has also occurred in other developing countries.18

It is quite understandable that the multilaterals may choose to remain engaged with countries that persistently fail to deliver. As previously noted, there may be a fear that nonengagement will strengthen the political hand of antireform political elements. In addition, the leaders of the IFIs may feel under pressure from the official policies of their major shareholders to be active in supporting these countries; the political fallout of walking away could be considerable.

There is no easy solution to this problem. Based on the history of the relations between the multilaterals and the CIS-7 countries, however, an essential element of a new start is to establish that a withdrawal of support will indeed occur in the event of an egregious failure to fulfill commitments. Combined with this tough love in response to nonperformance, another important element of the new approach is to recognize that more grant aid and a greater degree of concession-

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18 Easterly (2001) provides a sharp critique of the lending culture of the World Bank and the poor returns on many of the supported projects.
ality in loan conditions is appropriate for countries that are prepared to reform but are still reliant on official financing. In part, this is a reaction to the adverse development status of many highly indebted poor countries. More generally, it reflects the fact that the resources required for rapid development exceed the level that can be comfortably borrowed and that excessive external debt distorts and constrains development strategies.

Another element of this initiative is to encourage renewed efforts at debt-reduction packages, both vis-à-vis the multilaterals but also with respect to bilateral creditors (e.g., through Paris Club agreements). This recognizes in part that previous financial assistance was perhaps inappropriately designed: a high debt burden reflects bad decisions by lenders as well as debtors. In addition, debt reduction is motivated by the need to these countries to undertake a fresh start. This would represent a major change from current conventions that apply a set of uniform numerical criteria (e.g., with respect to GDP per capita, the debt-export ratio, and the ratio of private to official bilateral debt) in order to determine the scale of relief that is due each candidate country.

As currently constituted, however, the IFIs cannot deliver all the assistance required by the CIS-7 in their development efforts. At a financial level, the resources controlled by the IFIs are limited, and deployment is subject to the constitutions and mandates of these organizations. As such, bilateral sources and global funds that aggregate donations from individual donors are important potential components of overall financial assistance. In this regard and in view of the competition for funds from other low-income countries, it is a challenge for the CIS-7 countries to demonstrate to such potential donors that they are indeed worthy recipients of assistance because each individual donor must weigh the marginal impact of extra aid in alternative destinations.

Of course, it is also desirable that donor nations increase the aggregate pool of funds potentially transferable to low-income countries such that all countries meeting reform criteria may receive access to sufficient funding. On this front, it is important that the donor countries strive to meet the aid targets set under the Millennium Development Goals. To ameliorate the proliferation problem, increased pooling of funds among donors is also to be encouraged. For the CIS-7 countries, further integration of aid policies by EU members would be particularly beneficial.

Catalyzing private financial flows is an important goal as well if sufficient is to be. In addition to helping governments create the institutional and infrastructural conditions for market-oriented growth, which is already the goal of the IFIs, this involves their becoming participant investors in collaboration with the

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19 Sachs (2002) argues that the terms of debt relief should be considered on a country-by-country basis, using in-depth analysis of each debtor's specific profile and prospects.

20 The most recent Paris Club agreement for a CIS-7 country was for the Kyrgyz Republic in March 2002, which qualified for "Houston terms," providing an intermediate level of favorable treatment.

21 Buiter and Lankes (2000) argue that the constrained resources of the IFIs means that their mandates should be reoriented toward facilitating private flows to low-income countries.
private through various arrangements.\textsuperscript{22} Exploring an enhanced role for public-private partnerships and innovative ways by which the multilaterals can leverage private capital flows has also been supported by the United Nations.\textsuperscript{23}

The complexity of the development challenges facing the CIS-7 countries is such that the scope of required policy advice and technical assistance is far broader than feasibly can be provided by the World Bank and, especially, the IMF. The consistency of approach required across member countries inevitably constrains the multilateral institutions in their ability to deviate too far from normal terms and conditions in individual countries. The legitimacy and universality of these institutions rely on taking an evenhanded approach. The financial structures of the institutions are also such that a higher volume of lending in one zone constrains the capacity to act in other regions that are deserving of assistance.\textsuperscript{24}

Along these lines, the various UN agencies potentially have much to offer in specific reform areas, as do some nongovernmental organizations and EU programs. One implication is that, even if the two Bretton Woods institutions do a reasonable job in coordination, the problem of streamlining and managing the supply of policy advice and technical assistance from a broad set of agencies is, in itself, a considerable challenge. Moreover, for full effectiveness, an awareness of the activities and resource needs of all the other agencies must feed back into the operations and lending decisions of the IFIs.

Recent efforts to improve the targeting and better coordinate the delivery of technical assistance across the institutions are to be welcomed. This involves greater specialization in areas of core competence by each institution. Beyond the traditional function of training government officials, an interesting potential development would be to include representatives from civil society as participants in such training.\textsuperscript{25} An interesting historical parallel is that the Ford Foundation supported in the 1960s the development of a nongovernmental policy think tank in Ireland to establish an independent source of expertise on policy analysis. Such an initiative would have the effect of broadening the capacity for more effective program design and improving the quality of the PRSP process. Beyond the direct aid provided by the international community to the individual CIS-7 countries, their development has other international dimensions. Clearly, it is desirable that the European Union and other industrial countries further liberalize access to imports from these and other developing countries. Promoting cooperation among the CIS countries in reducing trade barriers and, where feasible, the cross-border integration of energy networks are positive sum endeavors.

Regional associations can also provide useful opportunities for information exchange, learning about reform experiments elsewhere, and enhancing cooperation on policy initiatives. Moreover, they can establish (formally or informally)

\textsuperscript{22} Zecchini (1995) highlights the potential of investment partnerships with the private sector.
\textsuperscript{23} See United Nations (2002).
\textsuperscript{24} Kapur (2002) emphasizes that the IFIs do not have the competence nor the flexibility to provide assistance on all aspects of the institution-building process that must take place in such countries.
\textsuperscript{25} See Gupta and others (2002).
feasible performance benchmarks that may stimulate reform efforts. Such yardstick competition generates peer pressure on laggards to improve performance.\textsuperscript{26} Although such countries do not form a contiguous geographical group, hopefully their participation in the CIS-7 initiative in itself can provide some of the benefits of membership in an international association. Enhanced international monitoring, cross-member demonstration effects, and the potential for information exchange on policy and institutional developments should all have beneficial effects on the quality of governance in these countries.

The prospects for development of the CIS-7 countries would also be greatly enhanced by a more rapid economic recovery in the collective CIS region, and Russia in particular. As such, an improved effort by the international community to assist the CIS-7 countries is best conducted in the context of a sustained strategy for the overall CIS. Of course, the needs of the different member countries vary greatly, and the nature of assistance may differ both in terms of intensity and form as between the low-income CIS-7 countries and other countries in the region. In turn, sustaining and deepening recent reforms in Russia would provide important leadership in demonstrating to the other CIS countries the viability and net gains to be achieved by embracing a more complete transition strategy.

\textbf{Conclusions}

Our goal in this paper has been to review and evaluate the performance of the international community and the IFIs in assisting the development of the CIS-7 countries, with an eye toward identifying the appropriate strategies for the future.

At least in some dimensions, the CIS-7 countries have made notable progress since the mid-1990s, and the IFIs have been heavily involved in efforts to encourage reform in these countries. The deeper reforms that remain, however, are primarily the responsibility of the domestic authorities: for instance, it would be an infringement on sovereignty for the IFIs to insist on particular designs for domestic public institutions and legal codes. If the international community wishes to intervene more directly in these areas, the IFIs are not the appropriate agents for such state building exercises.

In terms of policy advice, the initial focus was on securing macroeconomic stabilization, but the major priority has been to advance the reform agenda, especially in redefining the role of government in these countries. The resources committed to technical assistance have been substantial; however, the greatest success has inevitably been in the more technocratic policy areas, such as establishing functioning central banks, with relatively less penetration in the more diffuse areas, such as establishing the rule of law and creating an investment-friendly business environment. Related to the conclusion in the previous paragraph, this reflects the limits of the scope of the IFIs.

\textsuperscript{26}See also Braga de Macedo (2002) on the potential of regional arrangements in stimulating reform and development efforts.
Financial flows from the IFIs to the CIS-7 countries have been very significant, as have bilateral flows in some cases. The large rise in official external debt relative to output during this period does not suggest an unwillingness to provide financing for these countries and may even represent overlending. In part, this signals that the institutions should become tougher in assessing whether financial support will be well used in each case. It also suggests, however, that greater concessionality is desirable for those countries that demonstrate a commitment to reform and development.

At this stage, many of these recommendations for change have already begun to be reflected in the official policies and practices of the IFIs and their major shareholders. In regard to the CIS-7 countries, perhaps the major challenge now is to ensure effective implementation of the new procedures and financial policies. Because all of these countries will likely remain clients of the IFIs in the medium term, this involves a sustained commitment to assist these countries in formulating and implementing appropriate development strategies. It also requires a determination to discriminate rigorously between progressive and antireform actions by the policymakers. In this way, by rewarding and encouraging progress in reform, the international community and the IFIs will continue to have an essential role in supporting the CIS-7 countries.

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4 Structural Reform in the CIS-7 Countries
Richard Pomfret

This chapter analyzes the role of structural reform in the transition experience of the CIS-7 countries. The seven countries share many common features, beginning with their depressed income levels. All are landlocked, apart from Georgia, with its Black Sea access. Six are small in population, with between 4 and 8 million; Uzbekistan is the exception, with 25 million people (Table 4.1). More than half the population of the Kyrgyz Republic, Moldova, and Tajikistan is rural; Azerbaijan and Georgia also have rural shares above the former Soviet average. Most of the CIS-7 countries are resource abundant, but with differing specializations, and in most cases the benefits have still to be fully realized.

Three basic questions need to be addressed on structural reform in the CIS-7 countries: Where are they now? How did they get there? What does it mean?

The first section examines the relationship between policy reform and economic performance. The experience of the CIS-7 countries reinforces the general finding that peace and macroeconomic stabilization are prerequisites for successful economic development. The relationship between the speed and extent of structural reform and changes in the level of output is not the positive one that might be expected. A plausible explanation is that a positive relationship between structural reforms and increased output is conditional on an effective state providing infrastructure and other services.

The next section analyzes seven key dimensions of structural reform: liberalization of internal markets and international trade, enterprise reforms and enforcement of budget constraints, facilitation of new entry, banking and other financial market reforms, land privatization and redistribution, transport and telecommunications, and reform of other infrastructure services. It finds that the first phase of transition to a market-based economy is essentially complete. Price levels have stabilized. Small-scale enterprises are overwhelmingly in private hands, as are some large enterprises. However, structural reform remains at an embryonic stage, and the new market-based economies function poorly and fail to deliver the living standards that were expected to result from the transition from central planning. Progress on privatization has been slow, many obstacles to entry remain, banking reform is incomplete, ownership rights in land are still ambiguous, and infrastructure is in a poor state. The incompletely reformed economies
## Table 4.1. Basic Statistics for the CIS-7 Countries

(In percent, unless otherwise indicated)

<table>
<thead>
<tr>
<th>Item</th>
<th>Armenia</th>
<th>Azerbaijan</th>
<th>Georgia</th>
<th>Kyrgyz Republic</th>
<th>Moldova</th>
<th>Tajikistan</th>
<th>Uzbekistan</th>
</tr>
</thead>
<tbody>
<tr>
<td>GNP per capita, 2000 (US$)</td>
<td>505</td>
<td>652</td>
<td>567</td>
<td>263</td>
<td>360</td>
<td>158</td>
<td>561</td>
</tr>
<tr>
<td>GDP per capita, 2000 (purchasing power parity dollars)</td>
<td>2,713</td>
<td>2,602</td>
<td>4,285</td>
<td>2,524</td>
<td>1,916</td>
<td>1,082</td>
<td>2,363</td>
</tr>
<tr>
<td>Ratio of real GDP in 2001 to real GDP in 1989</td>
<td>69</td>
<td>57</td>
<td>36</td>
<td>69</td>
<td>35</td>
<td>52</td>
<td>103</td>
</tr>
<tr>
<td>Real GDP growth, 2000 actual</td>
<td>6.0</td>
<td>11.1</td>
<td>2.0</td>
<td>5.1</td>
<td>2.1</td>
<td>8.3</td>
<td>4.0</td>
</tr>
<tr>
<td>Real GDP growth, 2001 estimated</td>
<td>9.6</td>
<td>9.9</td>
<td>4.5</td>
<td>5.3</td>
<td>4.5</td>
<td>10.2</td>
<td>4.5</td>
</tr>
<tr>
<td>Inflation rate, 2000 actual</td>
<td>-0.8</td>
<td>1.8</td>
<td>4.1</td>
<td>18.7</td>
<td>31.3</td>
<td>32.9</td>
<td>24.6</td>
</tr>
<tr>
<td>Inflation rate, 2001 estimated</td>
<td>3.2</td>
<td>1.5</td>
<td>4.7</td>
<td>7.0</td>
<td>9.8</td>
<td>38.7</td>
<td>26.2</td>
</tr>
<tr>
<td>Population 2000 (in millions)</td>
<td>4</td>
<td>8</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>6</td>
<td>25</td>
</tr>
</tbody>
</table>

Sources: IMF (2002); EBRD (2002a); World Bank (2002b).
threaten to ossify into economic systems whose components mutually reinforce the incomplete reform.

The third section takes up the cross-cutting theme of the role of the state. Governments have yet to adjust to the role of the state in a market economy. A fundamental problem has been inadequate mobilization of revenues. Legal and judicial reform, so that the state can provide law and order, has also been incomplete. Related to this situation is the ubiquitous problem of corruption. A reflection of these interconnected shortcomings is the size of the shadow economy in all of the CIS-7 countries except Uzbekistan. Economic agents, if not completely discouraged from productive activities, prefer to operate outside the official economy.

**Policy Reform and Growth**

The cross-country empirical literature on growth in transition economies has centered on the role of initial conditions and of policies (macroeconomic stabilization and structural reform).1 Some studies, especially earlier studies with a time series dominated by the first half of the 1990s, found a significant relationship between war and conflict and growth. War and civil strife in Georgia and Moldova in 1992 and in Armenia, Azerbaijan, and Tajikistan in 1992–94 not only destroyed human lives and physical infrastructure, but also undermined the political consensus necessary for economic policy reform. Only the Kyrgyz Republic and Uzbekistan had a peaceful transition from Soviet republics to nation states.

The growth record during transition is complicated by the hyperinflation of the early 1990s and by the huge changes in consumption bundles and output mix following the end of central planning. Especially for the first half of the 1990s, national output measures were revised frequently, so comparisons with estimated pre-1992 output may be unreliable. In 1991, the Central Asian countries and Azerbaijan were the poorest Soviet republics, with the highest incidence of poverty, but some estimates of per capita gross national product (GNP) in U.S. dollars at independence did not place Armenia or Georgia far ahead of Uzbekistan. Yet after a decade in which Uzbekistan's economy grew slightly while Georgia's output fell by almost two-thirds, the two countries' GNP per capita in U.S. dollars were estimated to be almost identical (see Table 4.1).

Keeping such reservations about data in mind, some patterns of growth performance can be identified. Growth was negative in all the CIS-7 countries until 1994–95. Recovery faltered somewhat following the 1998 Russian financial crisis, with Moldova experiencing a return to negative growth. All countries have experienced positive growth since 2000. Nevertheless, real output remains significantly below pretransition levels in all countries except Uzbekistan.

In terms of real gross domestic product (GDP) growth over the decade following independence, Uzbekistan has the best record of all the former Soviet

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1 This literature is reviewed in World Bank (2002a) and Pomfret (2002a).
republics, and Moldova and Georgia the worst (Figure 4.1). Armenia and Azerbaijan suffered major economic disruption during the first half of the 1990s but have enjoyed economic growth since the late 1990s, and Azerbaijan has prospects of sustained growth led by exploitation of its abundant oil reserves. Tajikistan also had high growth in 2000 and 2001, but its civil strife eased only after a 1997 peace accord, and recent growth still reflects recovery from the low output levels of the mid- and late 1990s. The Kyrgyz Republic had a fairly deep transitional recession followed by growth since 1996, but its low per capita GNP suggests a disappointing economic performance (although GDP in purchasing power parity presents a more positive picture relative to the other CIS-7 countries except Georgia).

**Initial Conditions**

Initial conditions in the CIS-7 countries are less varied than in the transition economies as a whole, because all seven had the shared experience of being Soviet republics until December 1991. The Caucasus countries (Armenia, Azerbaijan, and Georgia) had a greater sense of national identity than the Central Asian countries (the Kyrgyz Republic, Tajikistan, and Uzbekistan), but none of the CIS-7 countries had a recent memory of statehood or of a market economy. By geography, all of the CIS-7 countries are disadvantaged relative to the Central and Eastern European transition economies, but it is difficult to assess the degree of disadvantage among them. Georgia has Black Sea ports, and all of the Caucasus countries have easier geographic access to Western Europe (as well as to Turkey and Iran) than do the Central Asian countries, which are geographically isolated and whose inherited transport and pipeline links all run north to Russia. Moldova is geographically further west, but it borders only Romania and Ukraine and is not on major east-west transport routes.

All Soviet republics' economies were integrated into the Soviet system, with very little external trade. The Central Asian republics supplied raw materials, especially cotton. Azerbaijan’s economic importance for most of the twentieth century lay in its oil, but its resources were not exploited very actively in the final decades of the Soviet era. All the CIS-7 countries had industrial sectors that were part of the integrated Soviet economy, with poor prospects of prospering as self-standing industrial sectors. An immediate shock following the dissolution of the Soviet Union was the shift from artificial prices, with energy underpriced and manufactures overpriced, to world prices. Moldova suffered the greatest negative terms-of-trade shock, but Armenia and Georgia and to a lesser extent Azerbaijan and Tajikistan also suffered negative terms-of-trade effects.\(^2\)

The most important, and most difficult to measure, initial condition was social and political stability. Azerbaijan, Georgia, and Moldova all inherited secessionist problems that led to conflict in the early 1990s, and the status of Abkhazia, Nagorno-Karabakh, and Transnistria remains unresolved. Tajikistan’s civil war.

\(^1\) Tarr (1994).
was ended by a 1997 peace accord, but the central government still does not control the national territory, and policy implementation is compromised. The Kyrgyz Republic and Uzbekistan have had internal peace, but their governments have used external threats, notably that of Islamic fundamentalism, to justify limiting human rights and democratic processes.

**Policies and Explanations for Growth Failures**

Macroeconomic stabilization has been a significant explanatory variable in cross-country studies of growth in transition economies. All the CIS-7 countries suffered from hyperinflation and from the disintegration of the ruble zone in 1992–93, and all have achieved a degree of stability despite further external shocks—especially the Russian financial crisis of 1998. Annual inflation was brought below 50 percent in 1995 in the Kyrgyz Republic and Moldova; in 1996 in Armenia, Azerbaijan, and Georgia; and in 1998 in Tajikistan and Uzbekistan. The three Caucasus countries have established credible price stabilization records over the past five years. The other countries’ inflation records have been uneven. Although none has slipped back above the 50 percent mark, Moldova and Tajikistan had inflation rates over 30 percent in 2000, and Uzbekistan’s inflation rate is repressed by foreign exchange and other price controls. Several CIS-7 countries have external debts that could threaten their macroeconomic stability.

The pattern of initial conditions and macroeconomic stabilization of the CIS-7 countries is consistent with the broader evidence from transition economies. Given the initial conditions and mixed macro stabilization records, growth
records of the transition economies can be related to the pace of structural reform. Here, however, the picture is less clear. Why did the Kyrgyz Republic and Moldova, countries with good reform records, especially in the first half of the 1990s, perform much more poorly than Uzbekistan, with its more limited structural reforms? Indeed, why has Uzbekistan enjoyed the best output performance of all the new independent states since the dissolution of the Soviet Union?

One possible explanation is that structural reform has been far from complete. Reforms that might be part of an optimal across-the-board package may be welfare-reducing when introduced piecemeal. This explanation is unconvincing, however, because there is strong international evidence that structural reforms in each of the areas undertaken are desirable, and although there are likely to be losers as well as winners from the reforms, negative resource allocation consequences are uncommon.

A second explanation is that the areas of structural reform are not equally important. The view that Uzbekistan is a laggard rests on lack of reforms in currency convertibility, price liberalization (mainly the state orders), governance and enterprise restructuring, banking, telecommunications, and roads and water, but Uzbekistan rates highly on railways and air transport. More generally, infrastructure and public services seem to work well in Uzbekistan compared with the other CIS-7 countries.

By contrast, the Kyrgyz Republic, despite its strong reformist credentials for most of the 1990s, had terrible infrastructure. Bishkek airport was closed to international flights for most of the decade, and internal communications between the north and south of the country relied on a poor road. Geography does not help the Kyrgyz Republic, but without decent infrastructure it was difficult either to create a well-functioning integrated national economy or to benefit from outward-oriented growth. This view acknowledges the potential benefits of structural reform but makes success conditional on preconditions such as price stabilization, peace and order, and good infrastructure.

A third explanation, to some extent a generalization of the previous one, is that an effective state is the crucial precondition for successful transition. The CIS-7 countries include the five Soviet successor states that endured the most violent passage to nationhood. Georgia, Moldova, and Tajikistan went through civil wars, and even today some areas of the countries are not under central government control. Armenia and Azerbaijan fought a bitter war in 1992–94, which caused much suffering and economic disruption but did not undermine state legitimacy. The Kyrgyz Republic and Uzbekistan had peaceful transitions to nationhood, although the Kyrgyz Republic is riven by political and economic divisions between north and south.

Output performance, measured by real GDP in 2001 as a percentage of real GDP in 1989, follows a threefold division that reflects these histories much more closely than it matches the extent of structural reforms (see Table 4.1). Moldova, Georgia, and Tajikistan have the worst performance; Azerbaijan, Armenia, and the Kyrgyz Republic are intermediate; and Uzbekistan is the best performer.
Failure to create an effective state is evident in the three poor performers. Uzbekistan's central government, by contrast, has largely achieved its aim of being technocratically efficient. This last explanation of course begs the question of what makes for an effective state in the context of the CIS-7 countries, an issue discussed later in the chapter.

**Structural Reform**

The most frequently used indicators of the extent of structural reform and progress toward creating a market economy are those prepared by the European Bank for Reconstruction and Development (EBRD). For the CIS-7 countries, the general picture is of substantial progress in price liberalization and small-scale privatization and limited progress in large-scale privatization and restructuring or financial sector reform (Table 4.2). The CIS-7 countries also rank poorly on institutional reform and on provision of infrastructure.

Among the CIS-7 countries, the three Caucasus countries and the Kyrgyz Republic generally rank better on EBRD status of transition indicators than do Moldova, Tajikistan, or Uzbekistan (see Table 4.2). The pace of liberalization has not been even, however. In 1995 the Kyrgyz Republic, Moldova, and Uzbekistan had the highest liberalization indices, followed by Armenia and Georgia and then Tajikistan and Azerbaijan. The EBRD indices suggest that the transition process has stalled in the first three countries since the mid-1990s and accelerated in the last four, where the process was disrupted by conflicts in 1992–94.

**Liberalization of Internal Markets and International Trade**

The Kyrgyz Republic (since 1998), Georgia (2000), and Moldova (2001) are members of the World Trade Organization (WTO). The other four countries have applied for membership. But even among the WTO members, the operation of the law of one price and commitment to market mechanisms are imperfect.

- The Kyrgyz Republic's international trade is hampered by the country's land-locked status. Almost all overland transport must transit Uzbekistan or Kazakhstan plus another country. The Kyrgyz domestic market is not integrated. There are large differences in incomes between the north and south, but the labor flows that would respond to and whittle down the wage differentials are not happening.

- In 2001, Georgia, in breach of WTO rules, introduced export restrictions on scrap metal, its largest export, and on timber. Although the restrictions were removed in 2002, the episode raised questions about the government's commitment to WTO obligations. In both Georgia and Moldova, secessionist forces

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3 This is the thrust of the explanation that Ronnås and Orchola (1999) offer for Moldova's poor economic performance since independence.

4 World Bank (2002a) 2.1.

5 See the analysis of regional effects on household living standards in Anderson and Pomfret (2000).
<table>
<thead>
<tr>
<th>Indicator</th>
<th>Armenia</th>
<th>Azerbaijan</th>
<th>Georgia</th>
<th>Kyrgyz Republic</th>
<th>Moldova</th>
<th>Tajikistan</th>
<th>Uzbekistan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price liberalization</td>
<td>3</td>
<td>3</td>
<td>3+</td>
<td>3</td>
<td>3+</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Trade and foreign exchange system</td>
<td>4</td>
<td>3+</td>
<td>4+</td>
<td>4</td>
<td>4+</td>
<td>3+</td>
<td>2–</td>
</tr>
<tr>
<td>Private sector share of GDP (percent)</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>50</td>
<td>45</td>
<td>45</td>
</tr>
<tr>
<td>Small-scale privatization</td>
<td>4–</td>
<td>3+</td>
<td>4</td>
<td>4</td>
<td>3+</td>
<td>4–</td>
<td>3</td>
</tr>
<tr>
<td>Large-scale privatization</td>
<td>3</td>
<td>2</td>
<td>3+</td>
<td>3</td>
<td>3</td>
<td>2+</td>
<td>3–</td>
</tr>
<tr>
<td>Governance and enterprise restructuring</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2–</td>
<td>2–</td>
</tr>
<tr>
<td>Competition policy</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2–</td>
<td>2–</td>
<td>2</td>
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<tr>
<td>Financial reform</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Banking and interest rates</td>
<td>2+</td>
<td>2+</td>
<td>2+</td>
<td>2+</td>
<td>2+</td>
<td>1</td>
<td>2–</td>
</tr>
<tr>
<td>Securities and nonbank financial institutions</td>
<td>2</td>
<td>2–</td>
<td>2–</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Infrastructure</td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Telecommunications</td>
<td>2+</td>
<td>1</td>
<td>2+</td>
<td>2+</td>
<td>2+</td>
<td>2+</td>
<td>2</td>
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<tr>
<td>Electric power</td>
<td>3+</td>
<td>2</td>
<td>3+</td>
<td>2+</td>
<td>3+</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Railways</td>
<td>2</td>
<td>2+</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Roads</td>
<td>2+</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Water and wastewater</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: EBRD (2002b).

Note: The measurement scale is from 1, little or no change, to 4+, representing the standards of an industrialized market economy.
limit the government’s control over parts of the national territory and its ability to monitor borders.

- Armenia and Azerbaijan are not yet WTO members, but their records on trade and foreign exchange liberalization do not fall much short of the CIS-7 countries that are WTO members. But their international trade is hindered by regional tensions that prevent normal relations between them and hamper development of regional initiatives. Despite a ceasefire in 1994, a formal agreement remains elusive. In Tajikistan, even since the formal end of the war in 1997, the central government has had difficulty exercising control over the entire national territory. Domestic commerce remains restricted by poor transport infrastructure, local government intervention (requiring permits and charging fees for crossing district boundaries), and licensing requirements.

- Uzbekistan is the laggard in price liberalization. Uzbekistan has a liberal tariff schedule, but currency convertibility has been severely restricted and key goods like cotton are still marketed through a state trading system. Both the foreign exchange controls and the state trading requirements are being liberalized, and Uzbekistan is committed to establishing current account convertibility. This pattern of delayed but eventual reform is typical of Uzbekistan. It resisted International Monetary Fund (IMF)-style macroeconomic stabilization in 1992–93, but after the government accepted the desirability of tightening monetary policies, implementation was purposeful in 1994. If the government fulfills its promises about currency convertibility, Uzbekistan will have a fairly liberal trade regime. The remaining holdout against price liberalization will then be the agricultural sector. The government recognizes the allocative efficiency arguments for ending state marketing, but it remains dependent on cotton for substantial revenue, so it would need to introduce alternative revenue-raising measures that could be politically costly.

**Enterprise Reforms and Enforcement of Budget Constraints**

Privatization of small companies and of housing was effectively completed during the 1990s, but privatization of large enterprises has proceeded much more slowly, especially for strategic enterprises, which often have included infrastructure providers. Even when formal changes in ownership status have occurred, management change and restructuring have rarely followed.

Measures of private sector share in GDP could be landmark indicators of progress in transition, but the EBRD’s rounded numbers are very approximate estimates (see Table 4.2). In the CIS-7 countries, agriculture is a major sector in which ownership status is often opaque. Small and medium-sized enterprises operate on the margins of the official economy and are underreported. Ownership of a few major enterprises can affect the aggregate figure in the small CIS-7 economies—the Kumtor gold mine, jointly run by a Canadian company and a

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*Pomfret (2000).*

Structural Reform in the CIS-7 Countries 83
state entity, accounted for 16 percent of the Kyrgyz Republic’s GDP in 2001. The EBRD’s transition indicators for large-scale privatization are also imprecise.

- The Kyrgyz Republic was one of the most rapid reformers in the CIS during the early 1990s. Reforms included both small enterprise privatization and transfer of most large and medium-sized enterprises into private ownership through a voucher scheme.

- In Moldova, voucher-based mass privatization in 1994–96 led to whole or partial divestiture of more than a thousand large and medium-sized state enterprises, but it was considered unsuccessful because it resulted in fragmented ownership. The emphasis then shifted to cash sales by tender or by auction.

- In Armenia, despite early and rapid privatization of land, privatization of large and medium-sized enterprises followed a path similar to that in Moldova. A voucher period in 1995–99 was followed by an emphasis on cash sales, but large-scale privatization remains incomplete, and restructuring has been limited.

- In Azerbaijan, although small and medium-sized enterprises have been privatized, there has been only limited progress in privatizing large enterprises. Foreign purchase, while invited, is often discouraged by packaging unattractive options with desirable assets and by requiring investors to settle enterprises’ past debts. Restructuring has been slow, and high levels of interenterprise arrears and nonperforming loans owed by state enterprises have inhibited financial sector development and strategic foreign investment.

- In Uzbekistan, small and medium-sized enterprises were privatized in 1992–93, but privatization of large enterprises has been slow. A list of 258 large companies to be sold by tender was drawn up in 1998 but aroused little interest owing to high prices and restrictions on changing the output mix. A revised list in December 1999 included 162 enterprises, but for some enterprises less than 50 percent of shares were offered for sale. In sum, the state retains whole or majority ownership of many large enterprises. Even when the state is not a majority shareholder, it can postpone strategic decisions in shareholder meetings if the decisions do not accord with its interests.

- In Tajikistan, formal privatization of large enterprises has been very slow, although large parts of the state sector effectively have collapsed as many assets were stolen. Privatization of large and medium-sized enterprises was launched in 1992, but by the end of 1997 only 30 enterprises had sold shares, and even these enterprises had 60 percent of their shares unsold.

In general, privatization has not led to desirable restructuring in the CIS countries, especially when the incumbent managers retain control. Reforms seeking to displace the incumbents face determined resistance from that group.

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Moldova has tried an innovative approach to inclusive restructuring. The Agency for Restructuring and Enterprise Assistance (ARIA), established in 1995-96 with World Bank support, had restructured 90 enterprises by 2001, creating more than 450 small and medium-sized enterprises.\(^8\) A key feature was ARIA’s commitment to not having permanent staff or providing finance, but rather encouraging its clients to solve their own problems and generate their own funding by sale or leasing of equipment or space. Thus creditors did not view ARIA as a cash cow that would service their nonperforming loans and had to accept a share of the loss from misallocated capital. Small and medium-sized enterprises were created by spinning them off from the oversized state enterprises or by leasing space to enterprises seeking to expand. Although the aim is internal restructuring rather than foreign investment, ARIA facilitates trade links so that the small and medium-sized enterprises can make subcontracting deals with European Union (EU) companies and also arranges for managers and workers to visit firms in the near West. The ARIA approach has been adopted by Armenia and Georgia.

The Environment for Small and Medium-Sized Enterprises and New Entry

All the CIS-7 governments support small and medium-sized enterprises and foreign direct investment, but the practical impediments to new entry are substantial. Potential new entrants are deterred by the complexity of regulations and tax codes (discussed in this section), and also by lack of access to finance, poor infrastructure provision, corruption, and lack of secure property rights (discussed later in the chapter).

Evidence from surveys of entrepreneurs is mixed on the relative importance of the various obstacles faced by small businesses, but recurring items are the level and complexity of red tape and taxation, the lack of protection of property rights, the threat of violence, and limited access to working capital. The macroeconomic environment has been a major perceived obstacle in the Kyrgyz Republic and Moldova. Many of the small enterprises privatized in the early years of transition failed to survive in a market environment.\(^9\)

Foreign direct investment (FDI) has been concentrated in natural resource extraction, where the host countries require the technical expertise of foreign companies. Among the CIS-7 countries, natural resource extraction concerns mainly the oil industry in Azerbaijan, which received more than $3.7 billion in FDI during the 1990s (Table 4.3). The Kumtor gold mine in Kyrgyz Republic has also been developed by a foreign investor, Cameco from Canada. But apart from Azerbaijan, inflows of FDI have been small overall (less than US$0.75 billion) and per capita (less than US$150).

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\(^8\) For more information on ARIA, see Ellerman and Kreacic (2002).

Table 4.3. Foreign Direct Investment in the CIS-7 Countries, 1989–2000

<table>
<thead>
<tr>
<th>Item</th>
<th>Armenia</th>
<th>Azerbaijan</th>
<th>Georgia</th>
<th>Kyrgyz Republic</th>
<th>Moldova</th>
<th>Tajikistan</th>
<th>Uzbekistan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2000</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount (US$ millions)</td>
<td>104</td>
<td>117</td>
<td>152</td>
<td>29</td>
<td>100</td>
<td>22</td>
<td>73</td>
</tr>
<tr>
<td>Per capita (US$)</td>
<td>27</td>
<td>14</td>
<td>28</td>
<td>6</td>
<td>23</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Share of GDP (percent)</td>
<td>5.4</td>
<td>2.2</td>
<td>5.1</td>
<td>2.2</td>
<td>7.1</td>
<td>2.2</td>
<td>1.2</td>
</tr>
<tr>
<td><strong>Cumulative, 1989–2000</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount (US$ millions)</td>
<td>550</td>
<td>3,749</td>
<td>738</td>
<td>440</td>
<td>438</td>
<td>144</td>
<td>697</td>
</tr>
<tr>
<td>Per capita (US$)</td>
<td>145</td>
<td>464</td>
<td>138</td>
<td>93</td>
<td>102</td>
<td>23</td>
<td>28</td>
</tr>
</tbody>
</table>

Source: EBRD (2002b).
Several countries have sought foreign buyers or managers for state enterprises, but the terms generally have not been attractive enough. In Moldova, foreigners have bid for state enterprises, with Russia’s Gazprom taking a majority shareholding in Moldovagaz and Spain’s Union Fenosa taking a stake in electricity distribution. Most of the other FDI has been in agriprocessing or wine. In Georgia, the U.S. company AES took over the main electricity distribution company in 1999. In Armenia, the Greek company OTE controls the main telephone company. In March 2001, the Dutch company Fondel was awarded a 25-year management contract for Azerbaijan Aluminum, with a commitment to invest over the next five years.

Outside the natural resource sectors, new foreign-invested projects, whether wholly foreign owned or joint ventures, have tended to be small. The UzDaewoo car factory in Uzbekistan is an exception; it has produced new models of cars and a minibus for the domestic market, although exports have been few.

**Banking and Other Financial Market Reforms**

All the CIS-7 countries replaced the monobank system of the centrally planned economy with two-tier banking systems, but none has created an efficient financial sector yet. The typical picture is one of too many undercapitalized new banks coexisting with successors to the old state bank, with all failing to provide effective financial intermediation. Indicators of financial development such as M3 (a measure of the broad money supply)/GDP are low (Table 4.4), and access to credit is difficult for small and medium-sized enterprises. EBRD indicators of financial reform show no progress in Tajikistan and very limited change (indices from 2- to 2+) in the other six countries. Some initial steps toward strengthening the banking sector are now being taken, although little has been done to develop securities markets or nonbank financial intermediaries.

- In Armenia, M3/GDP increased from 8 percent in 1995 to 15 percent in 2000, and nonperforming loans fell from 36 percent to 6 percent. However, the banking sector is small. At the start of 2001, banking system capitalization was US$61 million, but by September 2001 it had fallen to US$35 million, with total banking system assets of just over US$400 million. Eight of the 30 banks are under government-appointed administration. At the end of 2000, the last fully state-owned bank, the Armenian Savings Bank, was sold to Armenian investors with limited banking experience, and the bank needs much restructuring. To strengthen the banking sector, minimum capital requirements were increased in 2001 and 2002 and are set to reach US$5 million by 2005. Reforms in 2001 also included a new law for determining when a bank is insolvent and procedures for liquidating insolvent banks.

- Azerbaijan remains undercapitalized and overbanked, even though the number of banks declined from 210 in 1994 to 53 in 2001. Two state-owned banks

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<table>
<thead>
<tr>
<th>Indicator</th>
<th>Armenia</th>
<th>Azerbaijan</th>
<th>Georgia</th>
<th>Kyrgyz Republic</th>
<th>Moldova</th>
<th>Tajikistan</th>
<th>Uzbekistan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of banks</td>
<td>31</td>
<td>59</td>
<td>30</td>
<td>22</td>
<td>20</td>
<td>17</td>
<td>34</td>
</tr>
<tr>
<td>Number foreign owned</td>
<td>11</td>
<td>5</td>
<td>8</td>
<td>6</td>
<td>11</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Asset share of state-owned banks (percent)</td>
<td>2.6</td>
<td>60.4</td>
<td>0.0</td>
<td>—</td>
<td>9.8</td>
<td>6.8</td>
<td>77.5</td>
</tr>
<tr>
<td>Nonperforming loans as share of total loans (percent)</td>
<td>6.2</td>
<td>—</td>
<td>5.6</td>
<td>16.4</td>
<td>20.6</td>
<td>10.8</td>
<td>0.0</td>
</tr>
<tr>
<td>Stock market capitalization (percent of GDP)</td>
<td>0.8</td>
<td>—</td>
<td>—</td>
<td>0.3</td>
<td>0.1</td>
<td>—</td>
<td>1.1</td>
</tr>
<tr>
<td>Broad money (M3)/GDP (percent)</td>
<td>14.6</td>
<td>11.6</td>
<td>—</td>
<td>11.8</td>
<td>20.3</td>
<td>8.8</td>
<td>11.9(^1)</td>
</tr>
</tbody>
</table>

*Source: EBRD (2002b).*

\(^1\) M2 is used rather than M3.
dominate the sector, accounting for more than half the banking sector's total assets. A sign of the sector's weakness was the March 2002 withdrawal from retail banking by HSBC, the only major international bank active in that market. In 2001, the Central Bank moved to improve internal audit capacity and accounting policies and procedures and introduced minimum capital requirements of US$5 million for new banks and US$2 million for existing banks (raised to US$2.5 million in 2002). In late 2000, an estimated 60 percent of banks were not in compliance with minimum capital requirements. The Baku Stock Exchange started trading in 2000, but apart from T-bills, trading has been minuscule.

- Georgia has too many banks, and they provide limited financial intermediation (only 3 percent of the population have bank accounts), with big spreads between deposit and lending rates (10–20 percent). The share of nonperforming loans fell from 40 percent in 1995 to 6 percent in 2000, but in late 2000 a number of banks were in financial distress because of management and corporate governance problems. In early 2001 six banks closed. In January 2001, minimum capital requirements were increased from US$1 million to US$2.4 million, and a new asset classification system and international accounting standards were required for most banks. In October 2001, a new banking law established a legal framework and procedures for dealing with distressed banks.

- The financial systems in the three Caucasus countries are highly dollarized. The share of bank deposits denominated in U.S. dollars in September 2001 was 81 percent in Azerbaijan, 80 percent in Armenia, and 78 percent in Georgia. Macroeconomic stabilization and low inflation (see Table 4.1) have not generated sufficient confidence in the national currencies. Cash transactions remain ubiquitous and are associated with large shadow economies, whose existence perpetuates low levels of tax collection. Denationalization of the money supply and preference for cash also characterize the Kyrgyz Republic, Moldova, and Tajikistan, but to a lesser degree.

- The Kyrgyz banking sector was transformed between 1993, when it was state-bank dominated and 92 percent of loans were nonperforming, and 1998, when nonperforming loans were negligible. In 1998, M2/GDP was 14 percent, and state-owned banks held only 7 percent of the banking sector's assets. The banks were fragile, however, and public confidence was undermined by a banking crisis in 1998–99 in which three of the four largest banks were liquidated. Banking sector assets fell from US$160 million to US$90 million at the end of 2000. Since the crisis, financial sector reforms have been on hold. The Central Bank retains ownership of key banks. Parliament blocked a tender for privatizing the Savings and Settlement Corporation. In July 2001, the minimum capital requirement was raised to US$2.14 million, but only about a third of banks

11 Soos (2001, p. 126) reports that 10 of the banks were “semi-bankrupt.”
12 Sheriff, Borish, and Clarke (2002).
are complying. The government aims to improve prudential regulation, auditing standards, and public confidence, but it recognizes the need for institutional reforms to encourage bank lending and for technical change to improve efficiency. Reform efforts have been undermined, however, by political interventions halting corrective measures when they threatened favored banks.

In Moldova, all banks except the Savings Bank became private in 1992. Broad money has been increasing, reaching 23 percent of GDP by the end of 2001. Nonperforming loans fell from 46 percent of loans in 1996 to 21 percent in 2000. Minimum capital requirements were increased in 2001. By mid-2001, 4 of the country's 20 banks met the minimum capital requirements and could engage in domestic banking, 9 had twice the minimum capital requirements and could engage in foreign exchange operations, and 3 dealt in trusts and equities; the other 4 banks were suspended. In the second half of 2001, loans increased by 36 percent, and there was a further reduction in bad loans. The banking sector remains concentrated, with five banks accounting for two-thirds of total assets.

Uzbekistan's banking sector remains dominated by state banks (see Table 4.4), with the National Bank of Uzbekistan alone holding 55 percent of the assets. Current plans for privatizing it by 2004 appear unrealistic. Much of the government's national investment plan is operated through the banking system, with credit channeled to state enterprises, often at preferential rates. Farmers also receive payment through the banking system. Many deposit holders have restricted access to funds in their accounts, although the government planned to cancel restrictions on cash withdrawals by the end of 2002.

In Tajikistan, public confidence in the financial system is low, and bank deposits amounted to less than 3 percent of GDP in 2000. In June 2001, restructuring agreements between the National Bank of Tajikistan and the four largest commercial banks expired. The agreements led to improvements in the banks' net worth, loan recovery, staff training, and credit assessment procedures, although two large banks (Amonatbank and Agroinvestbank) remain weak. The National Bank of Tajikistan intends to strengthen its supervisory capacity and to increase minimum capital requirements to US$2 million.

The degree of structural reform in the financial sector is obviously far behind that of Eastern European transition economies, but progress is difficult to assess. There is two-way causality: lagging financial sector development has held back the real sector, but banks have been constrained by the limited loan possibilities caused by poor economic conditions and by limited fee-earning activities. Ownership does not seem to be critical in itself; Moldova, for example, quickly reduced the role of state-owned banks, but its financial sector remains fragile. Mismanagement and lack of trained staff appear to be crucial, irrespective of ownership.

Although banks have enjoyed soft budget constraints, many banks (more than 170 in Azerbaijan) have been permitted to fail, and failure was usually
connected to insider lending, mismanagement, or poor governance systems. Prudential regulation is improving, but legislation has run ahead of observance and enforcement. One problem is the number and quality of staff in bank supervision departments—and the high turnover. Stricter prudential regulations have often led to nonlending rather than to better lending, so that banks are not playing the financial disciplining role that would be expected in a well-functioning market economy. Nonlending is also connected to the broader institutional issues of the enforcement of contracts and ability to foreclose on delinquent borrowers.

**Land Privatization and Redistribution**

Although CIS-7 governments have espoused the desirability of increasing farmers’ incentives through land reform, governments have been reluctant to allow full private property rights over land. State and collective farm managers have resisted change strongly in some cases.

The most radical land reform in the CIS-7 has been in Armenia and Georgia, where independent private farms now dominate (see Chapter 7). The redistribution of land on the basis of family size resulted in very small farms and a steep decline in marketed output. Azerbaijan and Moldova transformed their farm sectors in 1998–99, although legislation permitting private ownership had existed in Moldova since 1991–92 and in Azerbaijan since 1995–96. Both countries issued paper land shares to rural households and then in 1998 started to convert the paper certificates into physical plots. The Kyrgyz Republic allowed private land ownership after a referendum in June 1998, although it was followed by a five-year moratorium on transactions involving land. These five countries have the most liberal land policies in the CIS-7. Tajikistan has enacted a land reform program but has made little progress in implementation owing to the complexity and cost of obtaining a certificate for cession of land and the renewed outbreak of civil war between December 1996 and June 1997. Uzbekistan retains full state ownership of land.

Several countries have introduced leasing arrangements for land or partial decollectivization of state farms. The Kyrgyz Republic established 99-year land use rights for private farms and a land registration system. Uzbekistan introduced 49-year land use leases, but lease transfers are restricted. Despite potential benefits, and references to China’s household responsibility system as a model for granting use rights without private land ownership, such reforms have had limited impact in the CIS-7 countries.

Except in Armenia and Georgia, corporate and other organizational forms retaining many of the attributes of the old collective farms have proliferated, making it difficult to establish how effectively the farm sector has been restructured. A key impediment has been the power of state farm managers to influence

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14 Lerman, Csaki, and Feder (2002).
legislation and its implementation at the farm level. The division of state farm assets has been controversial, with many stories of farmers out of favor with state farm managers receiving a spare tractor wheel or other useless piece of equipment as their share. In Central Asia and Azerbaijan, access to irrigation is often more important than the land itself. The state's role in agriculture remains especially strong in Uzbekistan, with state orders for the two main crops (cotton and wheat) and state involvement in the distribution of fertilizer, seed, chemicals, and machinery, as well as state financing and maintenance of the irrigation system. The organization of much of the land area appears to have changed little, though the choice of output mix and of inputs has changed.

Transport and Telecommunications

A key impediment to growth in transition economies has been the failure to upgrade infrastructure. For the CIS-7 countries, the inherited networks of railways, urban transport, gas and electric power, heating, water, and wastewater were adequate. The telecommunications systems were primitive, and the newly independent countries fell further behind global standards as they responded weakly to the challenges and opportunities of technological progress. The provision of utilities also has deteriorated owing to lack of maintenance and poor management, closely related to the failure of large-scale privatization and restructuring.

Transport

The rail network was an essential link in the Soviet economic system, which combined an emphasis on economies of scale with distribution of production facilities across the land mass of the Soviet Union. The largest industrial enterprises in the Kyrgyz Republic and Tajikistan processed cane sugar from Cuba and bauxite from Guinea, respectively. Since independence, many of these production chains have become uneconomic as transport services are priced to cover costs, even though the rail network remains intact.

Transport facilities have deteriorated owing to lack of maintenance. Rail transport remains important for Georgia and Uzbekistan, which were rail hubs in the Soviet system, and to a lesser extent for Azerbaijan and Moldova. While some countries still have good access to the Russian rail network, Russia gives priority to domestic services over what are now international services. Travel times fell and service improved between Russian cities while travel times between Russian cities and the new national capitals increased.

Azerbaijan and Georgia have retained their roles in the transcaucasian link from the Caspian to the Black Sea, but Azerbaijan's link to Russia has been closed intermittently by the Chechnya conflict, and Georgia's railway link to

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16 See Pomfret (2002b).
17 Djankov and Freund (2000).
Russia has been closed since Abkhazia’s de facto secession in 1993. In Moldova, the secession of Transnistria causes problems because the border is sometimes blocked. Soviet planners’ disregard for republic borders has meant that travel between the Kyrgyz Republic’s two main cities and Russia requires transiting Tajikistan, Uzbekistan, and Kazakhstan. Tajikistan also is served by spurs from Uzbekistan rather than having a national rail network.

A recurring problem is lack of funds to maintain, let alone replace, rolling stock and track. Tajik Railway has at most 45 functioning locomotives, and yet it carries some 90 percent of Tajikistan’s international commodity trade. In Moldova, the number of usable locomotives has fallen from 265 in 1994 to less than a hundred. The Moldovan rail company cross-subsidizes passengers from freight revenues, reporting small accounting profits in recent years but following an unsustainable path, as decline in service quality will drive away customers. On the main transcaucasus rail line across Azerbaijan and Georgia, average train speeds are 33 kilometers per hour, although the track’s design speed is 80 kilometers per hour. Uzbekistan’s state railway transport monopoly is being broken up with support from the Asian Development Bank and EBRD.

Even more than railways, road networks have been allowed to deteriorate through lack of investment and maintenance. Armenia, with its limited rail network and strained relations with its neighbors, has put more effort into maintaining roads, but only by the low standards of the CIS-7 countries. Elsewhere, road transport is hampered by narrow and poorly maintained roads. In Tajikistan, 190 bridges and 780 kilometers of roads were destroyed during the 1990s by war or natural disaster, and even the remaining roads are in abject condition. The main road north from Dushanbe deteriorates into a rutted track a few dozen kilometers north of the capital and is impassable for part of the winter.

Air transport is of variable quality in the CIS-7 countries. Uzbekistan, as the regional air hub, inherited the best stock of Aeroflot planes. After a shaky start, Uzbekistan Airways has upgraded its fleet and service and established itself as a competitive international airline, not only serving Tashkent but also capturing traffic from Europe to South or East Asia. Domestic air routes in Uzbekistan also are served by an efficient network with some modern aircraft. The other national airlines are less efficient, and their fleets are outdated. Although other international airlines serve their capital cities, connections can be poor.

**Telecommunications**

Reform progress in telecommunications is difficult to evaluate because, more than in other infrastructure areas, contemporaneous technical changes have major economic implications. Twenty years ago, almost every country in the world had a state-run monopoly provider of telephone services, but since 1980 there has been a worldwide process of privatization. Among the CIS-7 countries, telephone networks are most extensive in Armenia (15.7 per 100 inhabitants), Moldova (12.7), and Georgia (11.6) and most sparse in Tajikistan (3.7) and Uzbekistan (6.7). Structural reform is likely to depend on the expansion and
network access of cellular services, so that the number of fixed lines will soon be an inadequate measure. In breaking up state monopolies, new ownership matters, but there is evidence that an effective regulatory framework is more important and that it matters which is put in place first.18

- The Armenian telecommunications operator, Armentel, is controlled by the Greek company OTE. Its plans to raise changes and abandon flat tariffs on local calls have been assented to by the Armenian government, subject to OTE’s investing US$300 million in the system by 2006. Profits were down by nearly 50 percent in 2000.

- Georgia’s local telecommunications operator was offered for privatization, but investor interest was limited because the company’s financial viability was not clear and the more lucrative national operator was scheduled for privatization.

- Azerbaijan plans to privatize Aztelecom and Baku City Telephone Network. Three joint ventures, in which the Azerbaijan government holds a 50 percent stake, provide mobile services.

- Moldova planned the sale of 51 percent of MoldTelecom for the second half of 2002. In 2000, a cellular license was sold to a Moldovan-Turkish joint venture, followed by issuance of a second mobile license and creation of an independent regulatory agency. In all of these countries, the benefits in terms of true structural reform are unclear.

- In the Kyrgyz Republic, the physical infrastructure was improved during the 1990s with the help of international financial institutions. Licenses were given to two private cellular mobile phone companies. An independent regulatory authority was established in 1997, but its power was curtailed in 2001. Although KyrgyzTelekom made profits in 2000, privatization of 40 percent of the enterprise in 2000 failed because of unattractive conditions. The Kyrgyz Republic has low Internet connectivity, with only 3 percent of enterprises reporting Internet connections in a mid-1999 EBRD survey. In January 2002, a new tender was announced to select a consultant for KyrgyzTelekom privatization, and it is included in the list of firms to be privatized by 2003.

- In number of telephone lines per capita, Uzbekistan still lags behind its neighbors, except for Tajikistan. In 2000, national and international providers were merged to form Uzbektelekom, owned by the Post and Telecommunications Agency, which will regulate the sector after privatization. In 2001, substantial investments in telecommunication with Japanese credits led to an increase in the number of digital lines. Interventionist tendencies remain, however, and in early 2001 licenses of private Internet providers were revoked.

- In Tajikistan, telecommunications functions poorly, although the government is introducing reforms. Much of the infrastructure was destroyed in the 1990s.
by war or has deteriorated owing to lack of maintenance. The regulatory and operational functions are being separated, and an antimonopoly agency has been set up. A new telecommunications law in preparation aims to incorporate Tajiktelecom as a majority state-owned company. At present, however, telephones are a luxury enjoyed by the few people who have fixed line connections.

**Other Utility and Infrastructure Services**

**Energy**

The energy sector has been a major cause of resource misallocation, inefficient management, and corruption in the CIS-7 countries. Under the Soviet system, energy was cheap and energy use was much higher than in economies with similar income levels. Since independence, the power sector, through quasi-fiscal subsidies to energy consumers, has absorbed much of the social cost of abandoning central planning. While this situation facilitated control of the fiscal deficit and monetary stabilization and helped poor households, it also decapitalized the sector, which was rendered increasingly unattractive for privatization.

Over the longer term, negative consequences mounted. Quasi-fiscal deficits have proved difficult to manage and are a source of corruption. Using low energy prices and arrears as a social security measure is untargeted and discourages good management practices within the power sector. The situation is difficult to change, however, because powerful vested interests would lose from reforms and because bringing the social security element into the public budget would have negative short-run macroeconomic consequences.

A decade after independence, utility prices are still well below the long-run marginal cost (estimated by the EBRD to be around US$0.08 per kilowatt hour) in all the CIS-7 countries. Payment arrears and nonpayment are high. Without effective price signals, consumers do not adjust their consumption and economies remain far too energy-intensive for their income levels. The utilities are unattractive to either foreign or domestic purchasers, and under state control they continue to acquiesce in nonpayment when cutting off supply would be politically unpopular.

At the end of the 1990s, a window of opportunity opened briefly for privatization to foreign investors as companies such as Enron, AES, and Union Fenosa showed interest in investing in transition economies. Georgia and Moldova seized the opportunity. The window closed in 2001 with the collapse of Enron and the drop in other energy companies' market values.

In Georgia, the Telasi power distribution company, which met 35 to 45 percent of national electricity demand, was privatized late in 1999 by sale to the U.S. power company AES. Of the 70 other electricity distribution companies, only 8 small ones were privatized, and the government subsequently consolidated all the remaining distribution companies outside Adjara, South Ossetia, and Abkhazia into the Georgian United Distribution Company, for which it is seeking private management. In April 2002, electricity prices were raised substantially, with
a higher rate for customers supplied by Telasi in recognition of the need for AES to recoup its new investments. Management of the retail energy sector has improved. But corruption and theft remain problems, and attempts to create a wholesale energy market have failed.

In Moldova, a majority shareholding in three of the five power distributors was sold to the Spanish company Union Fenosa in February 2000. In 2001, approval was granted for a new tender commission for privatizing the two remaining power distributors and three power stations, but in August the plans were postponed because of a legal dispute and lack of investor interest. In July 2001, Union Fenosa introduced a new system of payment collection, including the ability to cut power supplies for nonpayment, and subsequent collection rates have been close to 90 percent. Service has improved, with almost uninterrupted electricity supply in central and southern Moldova, although technical losses (i.e., sales revenue falling below costs, but with the budget balanced by government assistance) and theft remain problems. A majority share in Moldova’s monopoly gas supplier has been sold to Gazprom.

Elsewhere, the picture is of failed privatization plans. In Armenia, an international tender for the sale of four electricity distribution companies failed in April 2001 because investors saw the deal as risky and unattractive. In Azerbaijan, the government is committed to tighter budgetary control of utilities, eventual unification of domestic and exported oil prices, and privatization of all distribution networks, but a legal and regulatory framework is needed to protect public interest and encourage private investment. In March 2001, Siemens won the tender for a 25-year management contract for Baku Electricity Company, but the contract was never signed because the government would give no guarantee against nonpayment of bills.

Attempts to bring prices up to cost-recovery levels and to improve collection rates have had mixed results. The rate increases in Georgia and Moldova have been mentioned. The Kyrgyz Republic, after raising electricity tariffs 20 percent or more each year from 2000 to 2002, reduced the number of users eligible for special tariff reductions and modified the tariff structure to mitigate the impact of the price increase on the poor. Nevertheless, the average billed tariff in 2002 was still no more than half the cost-recovery level. In Tajikistan, average electricity tariffs were raised 70 percent in 2000, but were still at about one-third of cost recovery. Nonpayment and delays to tariff adjustments together with provision for bad debts of previous years amount to nearly 6 percent of GDP. In Azerbaijan, the energy sector’s deficit from supplying oil and gas to Azerenergy and Azerigaz at prices below cost, exacerbated by low collection rates, amounted to about 13 percent of GDP.¹⁹ As a result, the state oil company, SOCAR, accumulated large tax arrears. In 2002, the government agreed to write off some of SOCAR’s pre-2001 quasi-fiscal activities.

¹⁹ EBRD (2002b); World Bank (2000).
Other steps to improve the effectiveness of the energy sector are difficult to evaluate. In 2001, the Kyrgyz government divided state-owned Kyrgyzenergo into a generating company, a transmission company, and four distribution companies in order to increase transparency. Aggregate reported losses increased, and the complexity of in-kind collection and offsets became apparent. The distribution segments were deprived of capital as Kyrgyzenergo used its limited funds on maintenance of upstream facilities. In Tajikistan, new energy laws approved in October 2000 created a separate energy ministry, and an antimonopoly agency was set up to regulate the tariffs of public monopolies. In both the Kyrgyz Republic and Tajikistan, attracting investment to the power sector is a priority, but investments in hydroelectric power depend on a regional solution to the use of water resources in Central Asia.

Water and Wastewater Disposal

Some attempts to improve water provision and wastewater disposal have been made, but they have been very limited (see Table 4.2). In August 2001, Georgia signed a private management contract for the water supply market, which should increase cash collections. Armenia has recruited an international water operator to manage the Yerevan Water and Sewage Company under a four-year performance contract. Azerbaijan is planning to reform the water and wastewater systems in Baku. The World Bank has approved a $15 million program to construct running water systems in rural areas of the Kyrgyz Republic.

Centralized Heating

The centralized provision of heating is especially resistant to change. The system of district heating by uninsulated pipes from a central boiler is extremely inefficient, but winters are sufficiently severe in the CIS-7 countries for heating to be a basic need. Typical reform measures are merely stopgaps. The district heating networks in Moldova have been transferred from the central government to local governments. The district heating systems cover an ever-decreasing proportion of households and may simply be allowed to atrophy, but there is an equity dimension insofar as the centralized system provides heating for poor urban dwellers, who cannot afford to purchase alternative sources of heating for their homes.

Interconnections Among Structural Reforms

Although the key dimensions of structural reform have been treated separately, the interconnections are important. The uncertain status of land privatization discourages banks from lending to farmers who might offer land as a collateral. The significance of large-scale privatization, or its absence, goes far beyond the direct impact. The continuing importance of state-owned enterprises and of large companies with unchanged management has established vested interests that not only oppose further enterprise reform but have also been able to maintain soft budget constraints (mostly through tax and energy arrears) and to forestall reforms that would increase competition. This situation has had
economywide effects through poor governance, stunted revenue sources and earmarked public expenditures, and inadequate infrastructure.

The feeble record of new enterprise creation in the CIS-7 countries is tied to the overall business environment and reflects lack of structural reform as well as inadequate protection of property rights and other governance issues. Changing the incentives of old enterprises, promoting the proper development of new ones, and establishing a positive and effective political economy of reform are interconnected. In practice, enterprise reform and facilitation of new entry have been complementary. However, the literature attempting to measure the relative impact of bureaucratic red tape, lack of finance and law and order, and other obstacles to entrepreneurship remains inconclusive. The evidence from the CIS-7 countries is unhelpful on this question, because there are too many obstacles and too few successes to identify significant empirical patterns.

Throughout the CIS-7 countries, a culture of nonpayment undermines respect for economic contracts, and the tradition of nondisclosure and tax avoidance impedes the spread of accounting and auditing to international standards. Quasi-fiscal subsidies (such as acquiescence in nonpayment of utility bills) helped poor households cope with the transitional recession of the first half of the 1990s but have become a wasteful approach to social security. A critical issue in the CIS-7 countries is the need to transfer social security provision from the energy sector to the general government budget.

**Rebuilding the State**

In the new independent countries, the state has faced many challenges in the transformation to meet the needs of a market economy. Some contributors to the econometric debate about growth in transition countries have argued that the collapse of state institutions is a key factor, with countries moving quickly and decisively to democracy (mainly Eastern Europe and the Baltics) or retaining the old authoritarianism (Belarus, China, and Uzbekistan) doing better than countries going through protracted constitutional change (Russia and Ukraine).

How well are states doing at providing the core state functions for a market economy— guaranteeing property rights, providing sound money, addressing market failures? The major issues in the years immediately following the dissolution of the Soviet Union were state-building and monetary reform. All the CIS-7 countries experienced the hyperinflation of the ruble zone in 1991-93 and, after introducing national currencies, achieved monetary stability at differing rates. During the second half of the 1990s inflation was reduced, but not all countries have achieved sustained fiscal balance. Continuing macroeconomic imbalances also have been reflected in balance of payments deficits for all but Uzbekistan and in mounting external debt for most of the CIS-7 countries (Table 4.5).

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98 Richard Pomfret
<table>
<thead>
<tr>
<th>Indicator</th>
<th>Armenia</th>
<th>Azerbaijan</th>
<th>Georgia</th>
<th>Kyrgyz Republic</th>
<th>Moldova</th>
<th>Tajikistan</th>
<th>Uzbekistan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government revenue</td>
<td>16.7</td>
<td>21.2</td>
<td>14.7</td>
<td>25.7</td>
<td>26.6</td>
<td>13.6</td>
<td>31.1</td>
</tr>
<tr>
<td>Government expenditure</td>
<td>21.6</td>
<td>20.8</td>
<td>17.9</td>
<td>32.9</td>
<td>30.6</td>
<td>14.2</td>
<td>31.8</td>
</tr>
<tr>
<td>Fiscal balance</td>
<td>-4.9</td>
<td>0.4</td>
<td>-4.6</td>
<td>-9.6</td>
<td>-4.0</td>
<td>-0.6</td>
<td>-1.2</td>
</tr>
<tr>
<td>Current account balance (2001)</td>
<td>-14.3</td>
<td>-6.1</td>
<td>-6.1</td>
<td>-6.1</td>
<td>-7.6</td>
<td>-7.2</td>
<td>2.7</td>
</tr>
<tr>
<td>External debt</td>
<td>45.0</td>
<td>23.9</td>
<td>54.5</td>
<td>133.5</td>
<td>101.3</td>
<td>124.2</td>
<td>69.2</td>
</tr>
</tbody>
</table>

Source: EBRD (2002b).


**Revenues and Expenditures**

Government revenues as a share of GDP vary considerably, but inadequate revenue is a major problem for most of the CIS-7 countries. Only Uzbekistan has managed to maintain public revenues and to keep public expenditures more or less in line with revenues (see Table 4.5), thanks to its success in maintaining and rebuilding state institutions, limited reform of the enterprise sector, and extraction of resources from a farm sector that produces a valuable staple export (cotton). In the Kyrgyz Republic and Moldova, state revenue collection has contracted, and expenditures have not been tailored to the reduced resources. Inflationary pressures are not under control, yet the governments find it difficult to reduce their expenditures in the face of high poverty levels and other demands. Azerbaijan’s oil wealth has enabled the country to avoid serious external debt, but government revenues remain low. In Georgia and Armenia, public revenues amounted to only 15 and 17 percent of GDP, respectively, in 2000, and both countries had substantial budget and current account deficits.

Some of the CIS-7 countries are working to boost public revenue or to reduce expenditures without reducing services, but it is difficult to assess the success of these efforts. Armenia is streamlining the tax system to lower the overall tax burden and reduce incentives for tax evasion. The small business tax code has been simplified, and the new tax code approved in December 2000 put corporate taxes on a progressive scale, with a 20 percent flat rate for large businesses. Budget revenues rose 20 percent in the first five months of 2001 over the same period in 2000, but fell in the second half of 2001, reflecting continuing collection difficulties. Georgia took steps in 2001 to improve revenue collection by reducing corruption among customs officials. Further steps to improve revenue collection included tests for tax officials, new procedures for monitoring tax officers, and changes to the tax code. The Kyrgyz Republic has focused on improving budgetary provisions and cutting costs (closing local offices, reducing duplication of services, cutting the workforce). And all the CIS-7 countries are implementing treasury and public accounts auditing systems.

An important challenge on the expenditure side has been to replace subsidies for loss-making enterprises and their employees with true adjustment assistance. A quick fix in the early transition era was to use quasi-fiscal measures such as energy or tax arrears to cushion the adjustment costs for individuals and enterprises, but this was an inefficient social assistance policy for households and it perpetuated soft budget constraints for enterprises. The philosophical prerequisite for shifting from subsidies to producers—replacing a worker orientation with a consumer orientation—is still a way off in the CIS-7 countries. Targeted social assistance funded out of general government revenue is superior to inequitable exemption from taxation or to indirect assistance provided in an untargeted manner by enterprises whose primary purpose should be efficient provision of services. Uzbekistan appears to be relatively advanced in dealing with arrears and in targeting social assistance from the state budget to those in need.
Also on the expenditure side, the state should provide primary health care and education, infrastructure, and law and order. Public expenditure on education has been highest in Uzbekistan (8 percent of GDP) and lowest in Armenia, Tajikistan, and Georgia (around 2 percent of GDP). Public expenditure on health has been low in all the CIS-7 countries, ranging from 4 percent in Moldova and Uzbekistan to less than 2 percent in Tajikistan, Azerbaijan, and Georgia.22

Figures for public expenditures on infrastructure and law and order are not readily available, but one area that is important to several of the CIS-7 countries is the maintenance of the irrigation systems on which much of agriculture depends. In Moldova, the share of irrigated land decreased from 49 percent in 1995 to 4 percent in 2000, as initial disorganization and then malfunctioning of the irrigation system amplified the impact of droughts in 1992, 1994, 1996, and 2000. In Tajikistan, obsolete irrigation systems contributed to the severity of the 2000 drought, the worst in 74 years, and are the proximate explanation for the much greater decline in cotton yields than in neighboring Uzbekistan.

**Law and Order**

In addition to safety from street crime and violence, in a market economy there is need for an effective judicial system to protect property rights.

Legal and judicial reform is difficult to measure. A study of five transition economies, including Georgia and the Kyrgyz Republic, found progress in the details rather than in the legislation or grand reform packages.23 The introduction of judicial qualification exams and higher salaries for judges had a dramatic effect on the independence and effectiveness of the judiciary in Georgia, while underpaid police officers were still levying arbitrary fines on motorists. According to the EBRD’s mid-1999 Business Environment and Enterprise Performance Survey, commercial courts are especially corrupt in Azerbaijan, the Kyrgyz Republic, and Moldova, even though the latter two are leaders in legislating judicial reform.

The EBRD’s legal transition indicators (Table 4.6) are based on assessments by participants (lawyers and academics) of the state of legal reform. They cover both the extent to which commercial law and financial regulations have reached internationally acceptable standards and the degree to which the laws are enforced. The legal transition indicators consistently show higher marks for extensiveness of legal transition than for the effectiveness of commercial law or financial regulations.

Reservations about implementation apply to government services in general. By the EBRD measure of administrative corruption (bribe payments as a percentage of reporting firms’ annual revenue), 6 of the CIS-7 countries (Azerbaijan, the Kyrgyz Republic, Armenia, Georgia, and Moldova) ranked among the 6 worst of

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22 World Bank (2002a).
Table 4.6. Legal Transition Indicators for the CIS-7 Countries, 2001
(EBRD index)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Armenia</th>
<th>Azerbaijan</th>
<th>Georgia</th>
<th>Kyrgyz Republic</th>
<th>Moldova</th>
<th>Tajikistan</th>
<th>Uzbekistan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Commercial law</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>2+</td>
<td>2+</td>
<td>3</td>
<td></td>
<td>4-</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Extensiveness</td>
<td>3-</td>
<td>3</td>
<td>3</td>
<td></td>
<td>3+</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
<td>4-</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td><strong>Financial regulations</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>3</td>
<td>2</td>
<td>3-</td>
<td></td>
<td>3+</td>
<td>2</td>
<td>2+</td>
</tr>
<tr>
<td>Extensiveness</td>
<td>3+</td>
<td>2+</td>
<td>3</td>
<td></td>
<td>4</td>
<td>2</td>
<td>3-</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>3</td>
<td>2</td>
<td>2+</td>
<td></td>
<td>3</td>
<td>2-</td>
<td>2-</td>
</tr>
</tbody>
</table>

Source: EBRD (2002b).

Note: The measurement scale is from 1, little or no change, to 4+, representing the standards of an industrialized market economy.
20 transition economies. Tajikistan and Uzbekistan were not included in the 20, but bribe taking is believed to be extensive in both.

In Armenia, a high-level commission has been set up to fight corruption and bribery, reform the civil service, and increase the transparency of administrative procedures. In Azerbaijan, the Chamber of Accounts has authority to audit government agencies and publish its findings. Recent administrative reforms include merging key ministries, improving the effectiveness of the civil service, and transferring policymaking and regulatory functions from state enterprises to relevant ministries. A key implementation issue is the extent to which the state oil company and the Oil Fund operate at arm's length from the government. In Georgia, a November 2000 anticorruption strategy aimed to establish fair and transparent tax rules, introduce a code of ethics and higher salaries for government workers, and strengthen the judiciary through tighter selection and testing criteria. The last point appears to have had some success, but there is widespread skepticism about the government's commitment to fighting corruption.

Although the CIS-7 governments are all willing to acknowledge the existence of corruption and several have active anticorruption policies, corruption remains a major problem. Transparency International's Corruption Perceptions Index for 2002 included 4 of the CIS-7 countries among the 102 countries covered: Uzbekistan ranked 68, Georgia 85, Moldova 93, and Azerbaijan 95 (with a higher ranking indicating a higher perception of corruption).

The Shadow Economy and an Effective State

Whether an effective state has been created is difficult to establish empirically, but from an economic perspective one indicator is the extent of the shadow economy. Economic agents operating in the shadow economy have chosen to exit the official economy, presumably because the benefits from being in the official economy do not compensate for the restrictions and obligations. Explanations of the shadow economy typically focus on the desire to avoid taxes or burdensome regulations, but there are costs in terms of lost access to public services and the formal financial sector. In most of the CIS-7 countries, the burdens of discretionary regulation by corrupt officials are substantial and the benefits of an effective financial, legal, and social system are lacking, so the shadow economy flourishes (see Chapter 9).

All measures of the size of the shadow economy have weaknesses. The most common approach is to relate total output to some measure of inputs, and the shortfall of officially reported GDP from estimated GDP is ascribed to the shadow economy. Several such measures are reported in Table 4.7. They are roughly consistent in showing high levels of shadow economy activity in six of the CIS-7 countries and lower levels in Uzbekistan.

Creation of an effective state is the most difficult problem facing formerly centrally planned countries. In cross-country studies of transition economies' performance, variables such as distance from Düsseldorf or years under Communism...
Table 4.7. The Shadow Economy as a Share of Official GDP in the CIS-7, 1994-96
(In percent)

<table>
<thead>
<tr>
<th>Country</th>
<th>1994-95 average</th>
<th>1996</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armenia</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>49</td>
<td>146</td>
</tr>
<tr>
<td>Georgia</td>
<td>62</td>
<td>171</td>
</tr>
<tr>
<td>Kyrgyz Republic</td>
<td>37</td>
<td>—</td>
</tr>
<tr>
<td>Moldova</td>
<td>—</td>
<td>61</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>29</td>
<td>9</td>
</tr>
</tbody>
</table>

Source: As noted in table: Lackó (1996); Johnson, Kaufman, and Shleifer (1997); Eilat and Zinnes (2002).

Note: All the approaches reported here are based on electricity intensity, adjusted for changes in other inputs, economic structure, relative prices, and other factors. The absolute measures should be treated with caution, but as an ordinal ranking they provide a useful guide.

¹ Numbers in parentheses are rankings among countries studied, from lowest to highest.
are correlated with growth, but they suffer from multicolinearity, which makes it difficult to isolate the nature of the Western transition economies' edge. One dimension of that edge is successful state building. The CIS-7 countries, by contrast, include the transition economies that have gone through the most difficult experience of state building. Among the CIS-7 countries, Uzbekistan stands out as the most successful state builder, and it also enjoyed the best output performance as well.

**Conclusions and Policy Recommendations for the Reform Agenda**

Sustaining reform will depend on maintaining public support and overcoming the opposition of vested interests that benefit from the current system. The social sustainability of reform depends on the state's ability to deliver social services and effective environmental protection. The best formula for improving health, education, poverty relief, and pensions is economic growth, but without targeted assistance to disadvantaged groups during the growth process, governments face the danger that mounting dissatisfaction will derail pro-growth reform.

The nonstate sector has led the recovery from the transitional recession. The process has been summarized in the two words *encouragement* and *discipline.* To generate private sector development as an engine of growth requires policies for encouraging entry of new firms and for privatizing and restructuring enterprises, so that they are subject to the discipline of hard budget constraints. In Azerbaijan and the Kyrgyz Republic, foreign investors have been crucial in facilitating exploitation of natural resources, but in other sectors and elsewhere in the CIS-7 countries direct foreign investment has been of minor importance. All CIS-7 governments are in favor of privatization and of small and medium-sized enterprises, but most faltered when it came to privatizing large state enterprises, and few have created a truly favorable environment for start-up businesses. The role of the financial sector in facilitating or obstructing new enterprise formation is likely to be important, but in the CIS-7 countries effective financial intermediation is still in the future.

The twin themes of this chapter are that structural reform has been taking place in the CIS-7 countries, albeit patchily and often slowly, but that to be successful it requires an effective state to provide infrastructure, law and order, and other services. These prerequisites are more important than specific reform policies, but that does not mean that the reforms do not matter. The incentives for participating in the official economy are still inadequate in all the CIS-7 countries, and a shadow economy flourishes in six of them. Although the shadow economy may have played a positive role in the early stages of transition, acting as a safety valve or coping mechanism as the official economy collapsed, a shadow economy can become self-propagating and limiting of long-term growth. There is strong evidence from Eastern Europe that, once the prerequisites for a functioning official economy are in place, countries adopting deeper structural reforms faster tend to be rewarded with superior economic performance.

References


———, 2002a, Transition: The First Ten Years (Washington).

5  
Public Expenditure in the  
CIS-7 Countries  

Mary Betley

All of the CIS-7 countries underwent difficult economic transitions during the 1990s, with gross domestic product (GDP) contracting sharply. As these countries restructured their economies and squeezed spending to fit within the much reduced budget envelopes, the share of public expenditure in national income fell substantially. Price subsidies and subsidies to state-owned enterprises have been reduced or eliminated. Large public sector investment programs, particularly in infrastructure, have been slashed. The size of the public sector has been reduced through privatization and initial reductions in wider public sector employment following reforms and the elimination of some services, such as pre-school education. At the same time, wages and operating costs have declined significantly in real terms, in line with the contraction of overall public sector revenues.

Accompanying the dramatic drop-off in public resource availability has been a fundamental change in the role of government, from that of providing all economic and social services to that of ensuring an appropriate legislative and regulatory framework for economic activity; providing an enabling environment, free of unnecessary bureaucratic impediments, to facilitate vibrant private sector development; and intervening in areas in which the market fails to produce the right level of services at a socially acceptable price (such as public health services).

In response to all of these changes, public spending in the CIS-7 countries declined by an average of 25 percent of GDP during the 1990s.¹ Under these constrained conditions, the CIS-7 governments have begun restructuring their public expenditure management systems to improve the efficiency of public expenditures and their effectiveness in achieving policy objectives.

Overview of Public Expenditures and Public Expenditure Management Reforms

The largest reductions in expenditure as a share of GDP were in Tajikistan, Georgia, Azerbaijan, and Armenia.² Public spending in the CIS-7 countries in 2001

¹ Alam and Sundberg (2002).
² Gupta and others (2001).
ranged from 15 percent of GDP in Tajikistan to 33 percent in Uzbekistan, with
an average of 25 percent (Table 5.1). In per capita terms, public expendi­tures
ranged from just under $25 in Tajikistan to nearly $150 in Armenia (Table 5.2).
These differences stem mainly from difficulties in revenue collection (Ge­orgia,
Tajikistan); differences in the size of excluded categories, such as externally
financed project expenditures, and in the inclusion of extrabudgetary expendi­tures
and local budgets (the Kyrgyz Republic); and differences in the rate of
implementation of economic reform, with slower reform associated with greater
budget subsidies to public sector enterprises (Uzbekistan).

With such low revenues and public spending relative to GDP, growth and
poverty reduction efforts in the CIS-7 countries depend crucially on sound man­agement
of scarce public resources. Hence, the CIS-7 countries have begun to
make changes to budget legislation, the presentation and coverage of budgets,
budget preparation processes, treasury systems and overall budget execution,
procurement systems, and internal and external audit systems.

Many of the CIS-7 countries undertook the following basic reforms (Table 5.3):

- a longer budget calendar that gives sector ministries more time to prepare
  submissions and the ministry of finance more time to consider sector min-
  istries' proposals;
- a more comprehensive budget presentation, including a consolidated budget
  picture;
- budget classification, including an economic and functional classification based
  on government finance statistics and an administrative classification;
- use of a treasury system and network; and
- modernization of the legal framework underpinning the budget to cover these
  new reforms.

A few of the CIS-7 countries have made deeper reforms:

- use of a public investment program to assist in managing public investment,
  particularly that supported by external finance;
- introduction of a medium-term budgetary framework, focusing initially on the
determination of the aggregate budgetary resource framework and the setting
of sector ceilings; and
- more flexible sector budgets, to improve efficiency of service delivery.

None of the CIS-7 countries has yet been able to undertake significant reform
in the following areas:

- review of above-the-line accounting and financial management information
  systems;
- improvements in accountability for budgetary control, including the introduc-
  tion of warranting systems; and
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Percent of GDP</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Armenia</td>
<td>44.1</td>
<td>28.9</td>
<td>26.1</td>
<td>25.5</td>
<td>25.6</td>
<td>30.1</td>
<td>25.9</td>
<td>21.3</td>
</tr>
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<td>Azerbaijan</td>
<td>45.9</td>
<td>22.5</td>
<td>20.3</td>
<td>20.8</td>
<td>23.7</td>
<td>23.6</td>
<td>20.9</td>
<td>20.1</td>
</tr>
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<td>Georgia</td>
<td>23.5</td>
<td>12.3</td>
<td>21.1</td>
<td>21.0</td>
<td>19.1</td>
<td>22.1</td>
<td>19.4</td>
<td>18.5</td>
</tr>
<tr>
<td>Kyrgyz Republic</td>
<td>29.4</td>
<td>29.3</td>
<td>32.7</td>
<td>32.7</td>
<td>35.6</td>
<td>36.8</td>
<td>32.9</td>
<td>32.3</td>
</tr>
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<td>49.5</td>
<td>39.6</td>
<td>38.7</td>
<td>43.2</td>
<td>38.7</td>
<td>32.8</td>
<td>30.6</td>
<td>29.9</td>
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<tr>
<td>Tajikistan</td>
<td>52.2</td>
<td>20.8</td>
<td>19.0</td>
<td>17.0</td>
<td>15.8</td>
<td>16.6</td>
<td>14.2</td>
<td>15.3</td>
</tr>
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<td>38.7</td>
<td>41.6</td>
<td>32.5</td>
<td>33.1</td>
<td>32.0</td>
<td>30.4</td>
<td>33.0</td>
</tr>
<tr>
<td><strong>Per capita (U.S. dollars)</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Armenia</td>
<td>76.2</td>
<td>98.7</td>
<td>110.2</td>
<td>110.2</td>
<td>127.5</td>
<td>146.1</td>
<td>130.5</td>
<td>149.5</td>
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<td>Azerbaijan</td>
<td>78.5</td>
<td>70.4</td>
<td>82.6</td>
<td>104.6</td>
<td>132.5</td>
<td>135.0</td>
<td>136.3</td>
<td>139.9</td>
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<td>54.5</td>
<td>65.8</td>
<td>118.8</td>
<td>138.0</td>
<td>147.3</td>
<td>115.8</td>
<td>107.9</td>
<td>107.5</td>
</tr>
<tr>
<td>Kyrgyz Republic</td>
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<td>109.7</td>
<td>142.2</td>
<td>124.9</td>
<td>124.7</td>
<td>99.5</td>
<td>94.1</td>
<td>99.5</td>
</tr>
<tr>
<td>Moldova</td>
<td>132.7</td>
<td>153.3</td>
<td>171.4</td>
<td>219.0</td>
<td>173.9</td>
<td>99.7</td>
<td>100.4</td>
<td>111.8</td>
</tr>
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<td>Tajikistan</td>
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<td>22.0</td>
<td>33.6</td>
<td>31.7</td>
<td>34.2</td>
<td>29.4</td>
<td>22.7</td>
<td>24.7</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>90.2</td>
<td>136.5</td>
<td>225.1</td>
<td>148.6</td>
<td>148.2</td>
<td>108.2</td>
<td>80.3</td>
<td>78.3</td>
</tr>
</tbody>
</table>

Sources: International Monetary Fund, World Bank, and European Bank for Reconstruction and Development data.

Note: Excludes data on expenditures on externally financed investment projects (except the Kyrgyz Republic) and expenditures of public enterprises. Data coverage:
Armenia—consolidated accounts of republican and local budgets; Azerbaijan—all levels of government except municipalities and all extrabudgetary funds, including oil fund; Georgia, the Kyrgyz Republic, and Moldova—consolidated state, municipal, and extrabudgetary funds; Tajikistan—excludes budgetary transfers to extrabudgetary funds; Uzbekistan—includes extrabudgetary funds but excludes local budgets.

1 Data include externally financed public investment program.

2 Data are distorted by the inclusion until 2001 in official population figures of those who had emigrated.
### Table 5.2. Overview of Public Expenditure Systems in CIS-7 Countries, 2001
(In percent, unless otherwise indicated)

<table>
<thead>
<tr>
<th>Armenia</th>
<th>Azerbaijan</th>
<th>Georgia</th>
<th>Kyrgyz Republic</th>
<th>Moldova</th>
<th>Tajikistan</th>
<th>Uzbekistan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public expenditure (US$ million)</td>
<td>449</td>
<td>1,133</td>
<td>582</td>
<td>477</td>
<td>481</td>
<td>160</td>
</tr>
<tr>
<td>Per capita (US$)</td>
<td>150</td>
<td>140</td>
<td>108</td>
<td>100</td>
<td>112</td>
<td>25</td>
</tr>
<tr>
<td>Share of GDP</td>
<td>21.3</td>
<td>20.1</td>
<td>18.5</td>
<td>19.3</td>
<td>29.9</td>
<td>15.3</td>
</tr>
<tr>
<td>Revenues to GDP</td>
<td>15.2</td>
<td>20.5</td>
<td>18.0</td>
<td>15.0</td>
<td>23.0</td>
<td>12.9</td>
</tr>
<tr>
<td>Local government expenditure as share of total government expenditure</td>
<td>6.3</td>
<td>17.6</td>
<td>33.0</td>
<td>30.4</td>
<td>25.1</td>
<td>—</td>
</tr>
<tr>
<td>Share of external finance in total public expenditure</td>
<td>17.1</td>
<td>—</td>
<td>15.0</td>
<td>25.4</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Budget year</td>
<td>Jan-Dec</td>
<td>Jan-Dec</td>
<td>Jan-Dec</td>
<td>Jan-Dec</td>
<td>Jan-Dec</td>
<td>Jan-Dec</td>
</tr>
<tr>
<td>Structure of budget</td>
<td>Consolidated = central + local + Social Insurance Fund</td>
<td>Consolidated = central + local + extrabudgetary funds (Social Protection Fund, State Oil Fund)</td>
<td>Consolidated = central + local + extrabudgetary funds (Pension Fund, Employment Fund, and Road Fund)</td>
<td>Consolidated = state (republican + local) + social fund. Municipal and ear-marked funds separate</td>
<td>Public fiscal expenditures = consolidated + state Social Insurance Fund</td>
<td>Consolidated = central + local + Social Protection Fund + Road Fund</td>
</tr>
</tbody>
</table>
### Responsibility for Budget Preparation

<table>
<thead>
<tr>
<th>Ministry of Finance and Economic Development,</th>
<th>Ministry of Finance,</th>
<th>Ministry of Finance,</th>
<th>Ministry of Finance,</th>
<th>Ministry of Finance,</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government body in charge of supervising public expenditure management</td>
<td>Collegio</td>
<td>Cabinet</td>
<td>Colloquium</td>
<td>Cabinet</td>
</tr>
</tbody>
</table>

#### Sources
- International Monetary Fund, World Bank, and European Bank for Reconstruction and Development data.
- Includes expenditures of state and municipal budgets and extrabudgetary funds. Excludes externally financed public investment program.
- Data refer to 2000 outcomes.
- Includes central government transfers.

### Public Expenditure in the CIS Countries

<table>
<thead>
<tr>
<th>Sector Ministries</th>
<th>Economic Policy Committee</th>
<th>Economic Policy</th>
<th>Colloquium</th>
<th>Cabinet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of Finance and Economic Development,</td>
<td>Ministry of Finance,</td>
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<td>Ministry of Finance,</td>
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</tbody>
</table>

#### Notes
1. Includes expenditures of state and municipal budgets and extrabudgetary funds. Excludes externally financed public investment program.
2. Data refer to 2000 outcomes.
3. Includes central government transfers.
review of intergovernmental finance systems, including expenditure and revenue assignment for different levels of government, the equity of intergovernmental transfers, and reviews of municipal finance.

Despite these reforms, budgetary outcomes are poor, largely because of weaknesses in the institutional framework for public sector management, exacerbated by difficult economic coordination and weak governance. More specifically, efficient public expenditure outcomes remain constrained by the following factors:

- intersectoral budget allocations that are inconsistent with stated policy priorities;
- intrasectoral budget allocations that are derived from input-based norms and thus do not meet policy reform requirements;
- input mixes that are inappropriate, particularly between salaries and operations and maintenance expenditures;
- significant, often ad hoc, changes to budgets during the year;
- budget outcomes that differ significantly from stated policy priorities and from budget plans; and
- buildup of expenditure arrears.

Analysis of Budget Trends in the CIS-7 Countries

Assessing how effectively governments use budgets as a tool for achieving their policy objectives requires an analysis of their budget plans. Key issues include how well government policies are linked to budget plans (and constraints to better linkages), how well functional and economic allocations reflect sector needs, and whether the budget formulation process facilitates or constrains the making and evaluation of policy choices.

This analysis concentrates on planned budgetary allocations, as opposed to actual general government or public expenditures, since the former represent governments’ planned expenditures and policy objectives. While significant shares of public expenditure (up to a third) are excluded from budgetary frameworks, representing a significant weakness in meeting good budget principles, difficulties obtaining consistent and sufficient data on nonbudgetary expenditures (extrabudgetary and externally financed expenditures) by appropriate classification prevent more detailed functional or economic analyses.

Allocating Budgets by Sector and Economic Classification

Sectoral Shares

Budget plans should represent government policy aims and aspirations. While budgetary outcomes can reflect weaknesses in budget execution, budget allocations are a good proxy for actual government priorities, which may often differ from stated priorities.
Table 5.3. Overview of Reforms Under Way in Public Expenditure Systems, CIS-7 Countries, 1991-2001

<table>
<thead>
<tr>
<th>Armenia</th>
<th>Azerbaijan</th>
<th>Georgia</th>
<th>Kyrgyz Republic</th>
<th>Moldova</th>
<th>Tajikistan</th>
<th>Uzbekistan</th>
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</thead>
<tbody>
<tr>
<td>Revised and modernized budget systems law based on modern budgeting techniques</td>
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<td>Longer budget calendar</td>
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<td>More comprehensive budget presentation</td>
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<tr>
<td>Budget classification—economic and functional government financial statistics classification plus administrative classification</td>
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<td>Introduction of a public investment program</td>
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<tr>
<td>Introduction of strategic phase to the budget (for example, medium-term budgetary framework)</td>
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<td>Introduction of a treasury system and network</td>
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<td>Review of accounting/financial management information systems</td>
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<td>Improved accountability for budgetary control</td>
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<td>Review of intergovernmental finance systems</td>
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<tr>
<td>Restructuring of sector budgets</td>
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</tbody>
</table>

Source: Author's compilation.

Note: Reforms in revenue administration and audit are not included.
No objective measures exist for determining the appropriateness of a budget's sectoral distribution, although comparisons can be made across countries between sectoral distributions and a country's stated priorities. A comparative analysis of the sectoral breakdown of recent budget data for CIS-7 countries shows considerable variations in emphasis across sectors (Figure 5.1).

Levels of spending in the CIS-7 countries (except Moldova) for defense and law and order are high in comparison with spending in other Central and Eastern European countries, with Armenia, Azerbaijan, and Tajikistan having the highest level of spending. This finding is not surprising, since all of the CIS-7 countries have been involved in conflicts following independence (see Chapter 8). Nonetheless, high expenditures on law and order squeeze resources for other public services, such as health, education, and social assistance, leading to erosion in the quality of these public services and thus less confidence in the public sector.

Spending on the social sectors (education, health, and social protection) is also fairly high. The share of spending on social protection is relatively similar across CIS-7 countries, with most of it directed to entitlement programs and a relatively small amount going to poverty-oriented social assistance and social care programs. Budgetary allocations for health care are lower than for education, reflecting the significant share of health spending accounted for by out-of-pocket payments and extrabudgetary health insurance funds in some countries.

**Figure 5.1. Planned Spending by Sector, 2002**

Sources: Ministry of finance data for each country; IMF staff estimates.

1 Data for Uzbekistan not included.
Spending on the *economic sectors*, including energy, agriculture, and transport, is relatively low. The drop in budgetary allocations in the energy and agriculture sectors reflects reductions in explicit subsidies, but nonbudgetary implicit subsidies remain. Capital investments make up the largest share of expenditures in the transport sector, assisted by external finance. This investment is not being matched, however, by regular or adequate expenditures for maintenance.

The relatively high level of expenditures in the *other* category in Armenia, Georgia, and Moldova indicates an overly aggregated functional classification of expenditures, often because externally financed expenditures are not broken down by function.

Differences in sectoral distributions between countries arise from differences in policy priorities among CIS-7 countries, leading to faster movement of resources away from infrastructure sectors and toward other sectors, especially the social sectors in Georgia and Tajikistan. In Azerbaijan, by contrast, resources have been targeted more toward the economic and infrastructure sectors and less toward the social sectors in the past five years.

Differences in the ability to implement structural reforms also play a role. Thus, even if policy priorities are similar, the ability to respond through the budget may be very different. An example is the effort to raise the retirement age, which affects the pensions gap and thus often the amount required from the budget to subsidize extrabudgetary pension funds. Georgia increased the retirement age by five years almost overnight, whereas the Kyrgyz Republic managed an increase of just one year and took several years to achieve that.

Also influential are institutional rigidities across countries that prevent strategic movements in resources across time. These rigidities include weak mechanisms for linking budgets to government policies, so that policy priorities are not reflected in budgets.

**Changes in Budgetary Allocations Over Time**

Continued fiscal adjustment in the majority of CIS-7 countries has eroded overall budgets as a share of GDP since 1997 (Figure 5.2). Especially large decreases in real public expenditure between 1998 and 1999, particularly in Georgia, the Kyrgyz Republic, and Moldova, show the effect of the Russian financial crisis of 1998. Armenia, Azerbaijan, and Tajikistan have managed to stabilize their real levels of spending, with Armenia and Tajikistan assisted by significant external financing.

Despite the high proportion of the budget allocated to social sectors, particularly in Azerbaijan, the Kyrgyz Republic, Moldova, and Tajikistan, social sectors have suffered greater real reductions in expenditures than other sectors, with their share in overall budgets decreasing in recent years in all the CIS-7 countries but Armenia and Georgia (Figure 5.3). Increased spending on general public services and, to a lesser extent, infrastructure has crowded out spending on social services. This change is having an adverse effect on service provision and on access to services by the poor. The overall level of spending on social sectors needs to be protected, and the efficiency and equity of resource allocations need to be improved,
Figure 5.2. Total Budgetary Spending in CIS-7 Countries, 1997-2001

Sources: Ministry of finance data for each country; IMF staff estimates.

Figure 5.3. Budgetary Spending on Social Services in CIS-7 Countries, 1997-2002

Sources: Ministry of finance data for each country; IMF staff estimates.
by allocating them in line with service delivery priorities (primary education and preventive health) and by ensuring that allocations are needs-based.3

**Allocations by Economic Item**

Comparing budget allocations to economic items gives insight into the likely sustainability of sectoral reform measures (Figure 5.4). A realistic balance in allocations between wages and operating expenses is critical to providing public sector workers with access to the materials and supplies they need to work and undertake reform measures effectively. At the same time, it is important to ensure that investment resources in key infrastructure are not undermined by inadequate maintenance provision.

![Figure 5.4. Budgetary Spending by Economic Item in CIS-7 Countries, 2002](image)

Sources: Ministry of finance data for each country; IMF staff estimates.

1 Data for Uzbekistan not included.

Reflecting the low level and highly compressed nature of public sector salaries, the wage bill represents a small share of overall budget allocations, except in Azerbaijan, causing difficulties in retaining staff with key skills. In Azerbaijan, the wage bill increased as a share of sector budget allocations from 66 percent in 1997 to 84 percent in 2000, reflecting salary increases and a larger number of positions. The sharp increases in utility costs during the 1990s are reflected in the relatively large proportion of overall resources allocated to materials and services. Transfers to the population (largely subsidies to entitlement programs) are significant in all of the CIS-7 countries. Domestically financed capital expenditures represent a small

3 For further discussion, see Bonilla-Chacin, Murrugarra, and Temourov (2002) and Burnett and Cnoblach (2003).
share of the overall budget, although capital expenditures are much higher when the externally financed public investment program is included. The shares of capital expenditures are much higher in Armenia, the Kyrgyz Republic, and Tajikistan because they receive more external finance. Spending on wages, utilities, and debt service payments is crowding out spending on operations and maintenance. In most of the CIS-7 countries, with the exception of Armenia, operations and maintenance spending has fallen dramatically as a share of GDP over the last five years (Figure 5.5). Also of considerable concern is the increasing burden of debt service payments, which are squeezing discretionary budgetary resources available to fund public services provision. For example, Georgia’s heavy external debt burden has meant that as much as a fifth of total expenditures have gone to service the external debt. As a result, noninterest recurrent expenditures fell from 10 percent of GDP in 1999 to 7.8 percent of GDP in 2001. In the Kyrgyz Republic, noninterest recurrent expenditures also fell, from 17 percent in 1998 to 14 percent in 2001. In both cases, successful Paris Club debt relief negotiations will reduce the burden of future debt service payments.

This increasing imbalance across economic items is hurting service provision. With salaries and utility payments representing a large proportion of sector budgets and squeezing out other expenditures, it is becoming impossible to sustain a system that employs people but does keeps them from working properly because of inadequate facilities, supplies, equipment, and salaries. The resultant deterioration in social services is contributing to a serious weakening in social welfare indicators, with many schools and hospitals in disrepair and most lacking basic equipment and supplies.

Figure 5.5. Operations and Maintenance Budgetary Spending in CIS-7 Countries, 1996-2001

Sources: Ministry of finance data for each country; IMF staff estimates.

1Data for Uzbekistan not included.
Compounding the problem is the practice in Georgia, the Kyrgyz Republic, and Tajikistan of “protecting” salaries and pension contributions from budget cuts in order to ensure that wages and wage-related contributions are allocated as budgeted. Intended to prevent wage arrears, this measure has further constrained budgets and distorted the balance between salaries and other expenditures. In Georgia, protected items (wages, pensions, debt service) account for an estimated 85 to 90 percent of the recurrent budget, leaving little money for discretionary allocation. In the Kyrgyz Republic, more than 70 percent of the budget goes to wages, transfers, and foreign-financed investments, crowding out purchases of basic materials and equipment, and operation and maintenance expenditures for infrastructure.

Thus, strategic budget allocation suffers because a substantial proportion of the budget is already fenced off from priority setting and budget rationalization. Sector ministries have little incentive to set priorities to improve services, since shifting from protected to unprotected categories introduces the risk that their overall resources will decline during the year. In addition, protecting some budget items can lead to a buildup in arrears on unprotected items.

These rigidities, together with budgeting based on allocating resources according to predetermined norms for physical quantities of inputs (see Box 5.1), make it difficult to reform the delivery of services. To do that, budget managers must be able

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**Box 5.1. The Problem with Norms**

In most CIS countries, budget formulation relies on normative budgeting techniques, or the use of specified input ratios to which standard unit costs are applied. Budget determination is a simple multiplication exercise (cost multiplied by quantity), minimizing the analytical demands on those responsible for preparing and evaluating budget requests.

However, the use of input norms is likely to contribute to inefficiencies in public service delivery by:

- relieving program managers of responsibility for introducing innovations that improve productivity and the quality of public service provision;
- providing incentives to managers to increase input use as a means of maximizing their budget allocations;
- reducing budget analysis in sector ministries to a process of checking whether norms have been applied correctly rather than challenging the assumptions on which budgets are based and considering alternatives; and
- failing to adequately recognize resource constraints.

Other countries emphasize analysis of budgets at the program level, consideration of alternative means of achieving program objectives, and active dialogue with the finance ministry over funding levels and performance. Legislated norms are replaced by resource allocation guidelines, themselves subject to regular review and updating, placing additional analytical demands on both the finance ministry and sector ministries. This fact is particularly relevant to transition economies, where governments are faced with a wide-ranging agenda of reforms to public services and entitlement programs in order to improve the sustainability and efficiency of public spending programs.
to move away from these predetermined norms and restructure the package of inputs used to deliver services. In the Kyrgyz Republic, for example, the Ministry of Health has had some success recently in restructuring health services by pooling budgetary and health insurance fund resources at the local level. The resulting savings have enabled institutions to increase their efficiency by improving salary structures, reducing unnecessary inputs, and providing more resources for supplies.

Budgeting in other countries emphasizes analysis of budgets at the program level, consideration of alternative means of achieving program objectives, and active dialogue with the finance ministry over funding levels and performance. Legislated norms have been replaced by resource allocation guidelines, themselves subject to regular review and updating, placing additional analytical demands on both the finance ministry and sector ministries. This situation is particularly relevant to transition economies, where governments are faced with a wide-ranging agenda of reforms to public services and entitlement programs in order to improve the sustainability and efficiency of public spending programs.

**Matching Budgets to Government Policies**

Budgets in the CIS-7 countries need to be directed more explicitly to meeting government policy objectives. It is difficult, however, to compare budgets with policy statements, since the CIS-7 countries tend not to articulate their policy programs comprehensively in the way that Organization for Economic Cooperation and Development (OECD) countries do. Often, the closest thing to such policy statements are the agreements made with the multilateral financing institutions, such as the Poverty Reduction and Growth Facility. In the future, the Poverty Reduction Strategy Papers being prepared by the CIS-7 countries will provide a useful and comprehensive program of policy reforms.

For now, a rough sense of the links between budgets and policies comes from examining strategic movements in budgetary allocations over time. However, there are a number of difficulties in seeing conclusive evidence of strategic movements in budgetary allocations, away from Soviet policy preferences toward what would be expected to be given priority by governments in a market economy. First, changes in sectoral allocations necessarily will be small in the short to medium term, since budgetary reforms have not been in place long enough to show significant changes in most countries. Recurrent spending, particularly on personnel, is semifixed in the short term through the practice of protecting certain economic items. Second, real expenditures have declined across most sectors, so budgetary support for strategic sectors will take the form not of budgetary increases but of protection from decreases, either in absolute terms or as a share of the budget. Third, changes in how sector budgetary institutions use their allocations are perhaps even more important to the reform program than the distribution of allocations across sectors. For example, in the restructuring of the Kyrgyz health sector, significant increases in allocations for primary care are being planned alongside decreases in allocations for tertiary care. This restruc-
turing is being accompanied by the pooling of funds at the local level, to facilitate more efficient use of inputs.

As demonstrated by the medium-term budget framework exercises under way in a number of CIS-7 countries (particularly in the Kyrgyz Republic and Moldova), ministries of finance have been focusing on ensuring that changes in sectoral allocations are in the right direction, with the highest-priority sectors being allocated higher-than-average nominal increases (or, if possible, ensuring real increases for these sectors), and lower-priority sectors being squeezed in nominal terms.

One way to ensure a better match between allocation decisions for medium-term sectoral budgetary resources and medium-term government policies is to use the budgetary expenditure implications of government policies set out in the interim Poverty Reduction Strategy Papers to compare the growth of sectoral expenditure allocations with the average growth rate of the overall budget. This comparison should lead to appropriate movements in resources toward strategic priority sectors over time. However, this approach requires institutional procedures that enable budgets to be prepared and implemented over the medium term in accordance with government policies; as discussed above, these institutional procedures are not yet in place.

**Institutional Constraints to Better Targeting of Expenditures**

Instead of being the key tool for implementing policies, budget formulation in the CIS-7 countries continues to be treated largely as an exercise in balancing revenues and expenditures to meet agreed deficit targets. Several institutional constraints in the budget preparation process weaken the ability of CIS-7 governments to use budget plans as a tool for achieving their policies. While some countries have made significant progress in improving budget management, the underlying institutional constraints and fundamental prescriptions are similar across the CIS-7 countries. These constraints underline the case for a fundamental restructuring of the budgetary framework in order to promote a medium-term strategic approach for allocating public finances.

**Lack of Clear Policy Directions**

Weak analytical and other policymaking capacities impair governments' ability to make and implement realistic and affordable policies. In contrast to the process in OECD countries, in which policy units undertake detailed analyses of a series of policy proposals, in the CIS-7 countries policymaking has focused on a plethora of sometimes conflicting government decrees, which often have not undergone any analytical scrutiny, particularly to determine whether they are affordable under existing budget constraints and whether they fit with other policy initiatives.

At the same time, sector ministries prepare separate policy documents setting out the general policy directions in which each ministry hopes to proceed. These documents lack practical utility, however, as they are often weakened by unrealistic time frames and by the failure to identify costs and the source of funds for
implementing the programs. In practice, government policies end up being
those agreed with the multilateral aid agencies. The lack of comprehensive gov­
ernment reform programs and explicit policy priorities is expected to be correct­
ed from 2002 to 2003, when most of the CIS-7 countries complete their full
Poverty Reduction Strategy Papers, which should form the framework for future
medium-term budgets.

**Lack of Guidance on Policy Priorities**

In addition to the lack of comprehensive policy documents, the failure to link
budgets with policy priorities is due in large part to the lack of adequate strategic
direction from the government and the ministry of finance. With weak policy-
making capacity at the sectoral level and without overall direction for priority
setting (for example, by setting budgetary ceilings across sectors within an over­
all aggregate budget resource framework), sector ministries have no strategic
guidance in preparing their budgets.

Policymakers often become involved in priority setting only at the point of
government discussion of the budget, when it is too late to base the budget
on an appropriate review of expenditure policies and program priori­
tization. Political leadership should be involved much earlier in the budget preparation
process, particularly in determining expenditure ceilings, and senior managers
should be involved and accountable at each stage of the process. This situation
is beginning to change with the introduction of medium-term budget frame­
works, as in Armenia, the Kyrgyz Republic, and Moldova.

**Lack of Procedures for Prioritizing Allocations**

Sector budgets continue to be allocated on the basis of norms and inputs (eco­
nomic items) rather than outputs and outcomes (see Box 5.1). In the absence of
strategic budget allocation procedures, budgets are determined by inertia rather
than by policy, with incremental budgeting the result. Sector ministries, guided
by an inflation projection in the budget circular, merely add a percentage to their
previous year’s budgetary allocation.

Thus, sectoral expenditure planning becomes an exercise in managing budget­
ary inputs (staff, supplies, and materials), with little attention to the outputs and
outcomes of public expenditure—that is, the efficiency and effectiveness of public
services and the impact on the realization of government policies. Guidance from
the ministry of finance at the start of the annual budget preparation process
focuses primarily on the level of increase to be applied to the main expenditure
items (increases in wages and utility costs). The medium-term budgetary frame­
work being introduced in several of the CIS-7 countries and being planned in
others (Azerbaijan, Georgia, Uzbekistan) should eventually improve procedures
for prioritizing expenditures.
Staff Capacity Constraints
Many staff members do not have the appropriate skills to cost out policies effectively. The top-down nature of budget decision making is exacerbated by the lack of sufficient analytical capacity within the budget department, the ministry of finance, and sector ministries to analyze and cost policy proposals. Through technical assistance, training is currently being provided to staff in ministries of finance and sector ministries, in conjunction with the introduction of medium-term budgetary frameworks and program budgeting techniques.

Nonstrategic Budget Presentation
In most CIS-7 countries, budgets are presented in a format that provides very limited information on how the allocated resources will be used to meet government policy objectives. The main focus of budget presentation is on providing information to be used primarily for expenditure control—specifically allocations for economic items (salaries, material costs, and the like). No objectives or expected outputs are included in the budget documents, nor are allocations shown by sector programs. The budget documentation provides little discussion of the underlying revenue and expenditure policy issues and choices that should serve as the basis for developing the budget. Line-item budgeting limits the availability of information on expenditures, since information can be analyzed only according to economic item, such as the balance between salary and non-salary budgeted expenditures. As indicated above, this situation is beginning to change, with some countries experimenting with more detailed sectoral budget presentations linked to the preparation of the medium-term budget framework and program-based budgets.

A Focus on One Year at a Time
In many CIS-7 countries, budgeting continues to focus exclusively on the annual budget, with no forward planning of budgetary expenditures. This lack of forward planning makes it difficult for the government to allocate resources in a way that is consistent with policy objectives. Without the information needed to determine which are the highest-priority activities, the lack of forward planning also makes it difficult for governments to have a clear basis for setting sectoral ceilings for future budgets.

The short-term focus perpetuates the donor-driven nature of capital investment. Without a forward resource framework, governments cannot adequately plan their own priority investment projects, which may have to be delayed or slowed because sufficient funding has not been allocated. The lack of a medium-term structure for the budget also means that recurrent costs arising from investment projects are not adequately planned for.
Incomprehensive Budgets

Greater effort should be made to bring more public expenditures into the budgetary planning process and to consider public resource use within the broader framework of intersectoral and sectoral policies and priorities. The fact that significant amounts of public expenditure are not included in the budget and thus do not undergo the same prioritization procedures as budgetary expenditures is an important constraint to using budgets as a tool for implementing government policies. If governments are to exercise effective fiscal management, the budgetary process needs to include all public expenditures. The consolidated budget frameworks of most CIS-7 governments include only revenues and expenditures of the central government and local governments (net of intergovernmental transfers) and in some cases health and social insurance funds. The following elements tend to be excluded from the budget preparation process:

- **Extrabudgetary funds, or earmarked funds.** Some CIS-7 countries operate a large number of extrabudgetary accounts, many of which are not shown in the budget documents. As a result, sectoral expenditures are prioritized on the basis not of a consolidated budgetary picture but of a partial view. This is poor budgetary practice, creating rigidities in spending priorities that can lead to inefficient and nonstrategic resource allocations. Substantial funds pass through these extrabudgetary accounts, so procedures for approving budgets and accounting for execution should be established.

- **External assistance.** Expenditures financed by external credits, loans, and grants, often substantial, are subjected to different procedures than other budgetary components. In the Kyrgyz Republic, for example, external assistance constitutes more than 25 percent of total expenditures. Some of this external assistance to the CIS-7 countries provides general budgetary support and so is already included in the budget, where it is treated as government budgetary resources. However, much of it supports investments in the rehabilitation and development of public infrastructure and services and is not included in most budget documents. Because such resources are supporting public expenditure, and in the case of credits and loans will incur future debt-servicing costs, they ought to be treated as an integral part of the budget framework.

Doing so requires a unified budget with full coverage of both investment and recurrent resources, prioritized according to the same methodology. Instead, at present, recurrent and development budgets are considered separately, which can also lead to distortions between capital and noncapital allocations in a sector. A further difficulty is the role played by the aid agencies in preparing public investment projects and the overall public investment program, so that these projects may reflect aid agency priorities more than government priorities.

- **Off-budget (ministry) funds.** Off-budget or “special” funds refer to revenues earned by individual ministries from fees for the provision of particular services. These funds can be substantial. In the Kyrgyz Republic, for instance, off-budget funds
represent 6 percent of total expenditures. In some countries (the Kyrgyz Republic, Moldova), these funds are shown in the budget, alongside general budgetary funds. In other countries, some or none of the funds are included. But even when revenues and expenditures are shown in the budget, they are segregated from general budget allocations. This segregation impedes accountability for these resources and prioritization of the overall budget picture.

- Quasi-fiscal deficits. Quasi-fiscal deficits are implicit subsidies to the electricity, gas, and water sectors that result from tariffs that are lower than cost-recovery levels, low collection rates, and a lack of payment discipline. They are a particular problem in Azerbaijan, Georgia, and the Kyrgyz Republic but are difficult to measure. A sustainable reduction in quasi-fiscal deficits requires an improvement in both tariffs and collection policies. Reforms in many of the CIS-7 countries are leading to reductions in these deficits through increases in tariff rates.

Budgets Not Executed as Planned

Finally, problems with executing budget plans can lead to budgetary outcomes that are very different from budget plans (see below).

Effectiveness of Budgetary Outcomes

This section considers actual budgetary outcomes, or whether budget execution systems in the CIS-7 countries can deliver planned spending within the budget aggregates. It looks at how well budget outcomes reflect budget plans, particularly in terms of sectoral allocations, and at deviations between plans and outcomes and how these deviations are related to external macro shocks. It also considers how accurate and effective financial management information systems are in giving budget decision makers the information they need to execute their budgets as planned and how budget execution systems facilitate or hinder good budgetary outcomes.

Comparative Analysis of Budget Deviations

Better expenditure planning is futile without mechanisms to ensure that budget implementation is in line with plans and that good information is available on budget performance. While the CIS-7 countries have made considerable progress in strengthening budget execution systems since the mid-1990s, weaknesses remain. Significant budget deviations undermine good budget practice in several ways:

- Accountability. Poor predictability in budgets removes a key plank for establishing accountability. Holding budget institutions accountable for monitored performance becomes impossible if resources are unpredictable within very wide margins.

- Credibility and predictability. The degree of divergence in the functional classification raises concerns about the stability and credibility of the policy. If budget intentions over a one-year horizon are implemented with a large error margin,
this has implications for governments' ability to implement any policy entailing significant medium-term reallocations of resources.

- **Legitimacy.** The extent of budget deviations raises questions about the legitimacy of the budget process: divergences from budget appropriations indicate a weak link in accountability to the legislature in the budget process.

In general, the main reasons for such deviations include the following:

- **Macro shocks,** causing expected budget revenues to shrink and requiring cuts in budget expenditures to meet agreed deficit targets. Volatility in external financing may also be a contributory factor.

- **Unrealistic revenue projections,** requiring reductions in planned budgetary expenditures in order to meet agreed deficit targets. Unrealistic projections often are the result of political pressure to raise macro growth rates and revenue forecasts. These projections subsequently need to be revised downward when actual revenue collections are less than expected.

- **Volatility in policies,** reflecting changes in priorities—after the budget has been approved by parliament—that are not due to reductions in revenues as a result of macro shocks or poor revenue estimates. This volatility tends to be reflected most in different shares for sectors (rather than in overall deviations) between planned and actual expenditures.

- **Institutional weaknesses in budget planning and execution systems,** such as the fact that planned budgets are not credible.

A comparison of actual and planned budgetary expenditures across the CIS-7 countries for 2001 shows deviations overall and within sectors as well as between planned and actual sector shares (Table 5.4). As indicated above, major deviations between budget plans and budget outcomes mean that there has been substantial adjustment of budget allocations after parliamentary approval and significant instability in broad policy decision making. This policy instability results from a highly unpredictable policy environment (macro shocks) and indicates long-term weaknesses in the institutional system for budget preparation and implementation.

**Overall Deviations**

Significant deviations in overall expenditures demonstrate the effects of macro shocks and poor revenue projections (see Table 5.4). Each country's original budget as approved by parliament was used as the basis for the analysis, because that version was used for expenditure planning by sector ministries and for debate by parliament. Budgets are revised during the year, and deviations between budget plans and outcomes gradually narrow during the year.

Because of the frequently changing political and economic landscape in the CIS-7 countries, it is difficult to be definitive about the causes of budgetary variations across years, since patterns in one year may not carry through into the next. Nonetheless, evidence for some of the CIS-7 countries indicates that the
extent of deviations does continue from one year to the next, indicating systemic problems in budget execution.

- Deviations between budget plans and actual outcome for 2001 ranged from around 2 percent (Armenia) to nearly 20 percent (Georgia). Difficulties in revenue collections are responsible for the significant deviations in Georgia. Outcomes in 2000 were also significantly less than planned, at nearly 35 percent lower than the original budget for that year.

- Executed budgets were lower than planned budgets, primarily because of lower-than-expected revenues. Overoptimistic revenue projections are the most likely explanation. There is a perverse incentive for countries with a Poverty Reduction and Growth Facility program to overstate their revenues in order to demonstrate that the government is spending sufficient budgetary resources on meeting sectoral reform measure targets.

- Deviations in some countries (Armenia, Georgia, the Kyrgyz Republic) were the result of significant volatility in the receipt of foreign financing.

As indicated above, predictability in the budget is important, as it enables sector ministries to plan their expenditures strategically in order to implement government policy objectives efficiently. Frequent changes in budgets, either in planned allocations over time or in actual outcomes compared with budget plans, lead to a loss of legitimacy and thus of credibility for the budget.

Some sectors suffered significant deviations between plan and outcome, reflecting in-year changes in policy and poor budgetary planning, thereby undermining budget predictability in these sectors. Sectors with lower budget deviations indicate priority sectors for governments, in that they are relatively protected from general budget cuts. The analysis shows that:

- budget deviations at the broad functional level suggest that the budget preparation process fails to reflect the factors that affect actual budgetary allocations;

- general government services (including public administration and defense) underwent disproportionately small budgetary cuts, while economic services underwent disproportionately large cuts;

- expenditures on public order and safety were protected from budget cuts, reflecting the importance of this sector for the CIS-7 governments;

- expenditures on social sectors were relatively protected from the largest budget reductions. In Moldova, however, reductions in health and education expenditures were required to meet payment obligations for social protection programs; and

- requirements to make emergency energy transfers undermined that sector's budget plans in Georgia.
<table>
<thead>
<tr>
<th>Category</th>
<th>Armenia Actual US$ mn</th>
<th>Armenia Difference from plan (percent)</th>
<th>Georgia Actual US$ mn</th>
<th>Georgia Difference from plan (percent)</th>
<th>Kyrgyz Republic Actual US$ mn</th>
<th>Kyrgyz Republic Difference from plan (percent)</th>
<th>Moldova Actual US$ mn</th>
<th>Moldova Difference from plan (percent)</th>
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<td>General government services</td>
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<td>3.8</td>
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<td>79.5</td>
<td>-8.2</td>
<td>62.2</td>
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<td>15.3</td>
<td>83.0</td>
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<td>43.6</td>
<td>-12.2</td>
<td>25.2</td>
<td>-26.3</td>
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<td>Defense</td>
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<td>-0.9</td>
<td>17.7</td>
<td>-6.9</td>
<td>20.3</td>
<td>-5.6</td>
<td>11.6</td>
<td>93.8</td>
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<tr>
<td>Public order and safety</td>
<td>27.3</td>
<td>-0.2</td>
<td>38.3</td>
<td>-8.2</td>
<td>15.5</td>
<td>1.2</td>
<td>25.5</td>
<td>-3.5</td>
</tr>
<tr>
<td>Community and social services</td>
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<td>95.1</td>
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<td>139.5</td>
<td>-9.6</td>
<td>247.6</td>
<td>-2.6</td>
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<tr>
<td>Education</td>
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<td>-12.0</td>
<td>15.1</td>
<td>-9.8</td>
<td>59.0</td>
<td>-13.2</td>
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<td>Health</td>
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<td>-14.5</td>
<td>16.0</td>
<td>-11.9</td>
<td>28.5</td>
<td>-7.8</td>
<td>39.9</td>
<td>-45.7</td>
</tr>
<tr>
<td>Social security and welfare</td>
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<td>-8.0</td>
<td>52.8</td>
<td>0.4</td>
<td>29.3</td>
<td>-9.4</td>
<td>122.9</td>
<td>173.8</td>
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<tr>
<td>Housing and communication services</td>
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<td>-31.1</td>
<td>1.8</td>
<td>-20.2</td>
<td>16.6</td>
<td>1.2</td>
<td>8.2</td>
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<td>Public Expenditure in the CIS Countries</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Recreation, culture, and religious services</td>
<td>9.9</td>
<td>-8.2</td>
<td>9.5</td>
<td>-10.7</td>
<td>6.1</td>
<td>-9.3</td>
<td>6.8</td>
<td>-39.1</td>
</tr>
<tr>
<td><strong>Economic services</strong></td>
<td>57.3</td>
<td>-6.5</td>
<td>13.9</td>
<td>1.9</td>
<td>29.4</td>
<td>-13.3</td>
<td>14.8</td>
<td>-33.8</td>
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<td>Fuel and energy</td>
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<td>-27.2</td>
<td>4.3</td>
<td>155.5</td>
<td>5.0</td>
<td>-0.1</td>
<td>0.3</td>
<td>471.4</td>
</tr>
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<td>Agriculture</td>
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<td>7.2</td>
<td>-23.1</td>
<td>12.6</td>
<td>-28.5</td>
<td>4.6</td>
<td>-54.9</td>
</tr>
<tr>
<td>Mining and mineral resources</td>
<td>1.0</td>
<td>-12.4</td>
<td>0.3</td>
<td>-35.6</td>
<td>2.1</td>
<td>-4.4</td>
<td>1.2</td>
<td>24.0</td>
</tr>
<tr>
<td>Transport and communications</td>
<td>12.4</td>
<td>-9.4</td>
<td>1.1</td>
<td>145.1</td>
<td>8.6</td>
<td>-2.9</td>
<td>7.5</td>
<td>-19.0</td>
</tr>
<tr>
<td>Other economic services</td>
<td>1.0</td>
<td>-8.7</td>
<td>1.1</td>
<td>-37.4</td>
<td>1.0</td>
<td>-28.7</td>
<td>1.2</td>
<td>-36.8</td>
</tr>
<tr>
<td><strong>Other services</strong></td>
<td>94.9</td>
<td>15.4</td>
<td>84.7</td>
<td>-39.1</td>
<td>5.3</td>
<td>-20.4</td>
<td>93.6</td>
<td>-35.6</td>
</tr>
<tr>
<td><strong>Total government spending</strong></td>
<td>436.5</td>
<td>-2.0</td>
<td>332.7</td>
<td>-18.2</td>
<td>253.8</td>
<td>-10.1</td>
<td>418.2</td>
<td>-14.4</td>
</tr>
</tbody>
</table>

**Sources:** Ministry of finance for each country; World Bank staff estimates.

**Note:** This analysis is based on a functional classification of budget performance for reasons of data availability and comparability. This methodology may lead to underestimation of actual budget deviations compared with deviations measured by budgetary institutions or spending units.
Ministry-level budget deviations provide even more accurate information on the degree of budget predictability. An examination of the extent of budget deviations for selected ministries in the Kyrgyz Republic shows that defense and national security institutions, as well as central ministries such as the Ministry of Finance, had the smallest variation between budgets and actual outcomes (Figure 5.6). The largest deviations were found in the social sector ministries, particularly the Ministry of Education and the Ministry of Labor and Social Protection.

**Deviations Between Sectors**

A comparison of deviations between budget plans and outcomes for Armenia, Georgia, and the Kyrgyz Republic shows the effect of protecting economic items (Table 5.5). As expected, wages and transfers showed relatively lower levels of deviation in all three countries than expenditures on goods and services. The sharp deviation in interest payments in the Kyrgyz Republic reflects the debt reduction strategy approved midyear.

![Figure 5.6. Budget Deviations for the Largest Budget Users in the Kyrgyz Republic, 2001](image)

**Source:** Ministry of Finance, the Kyrgyz Republic.

**Note:** The figure shows the sum of absolute budget deviations by budget user as a percentage of the originally approved budget. Total budget deviations in 2001 were 13.6 percent.
Table 5.5. Deviations Across Economic Items Between Budget Plans and Actual Outcomes for Three CIS-7 Countries, 2001
(Deviations as percentage of original budget)

<table>
<thead>
<tr>
<th>Item</th>
<th>Armenia</th>
<th>Georgia</th>
<th>Kyrgyz Republic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wage bill</td>
<td>5.7</td>
<td>0.6</td>
<td>10.6</td>
</tr>
<tr>
<td>Goods and services</td>
<td>11.0</td>
<td>55.1</td>
<td>15.7</td>
</tr>
<tr>
<td>Current transfers and subsidies</td>
<td>10.7</td>
<td>7.6</td>
<td>17.2</td>
</tr>
<tr>
<td>Interest</td>
<td>19.1</td>
<td>26.3</td>
<td>51.5</td>
</tr>
<tr>
<td>Capital expenditure</td>
<td>37.8</td>
<td>1.8</td>
<td>27.3</td>
</tr>
<tr>
<td>Other</td>
<td>12.9</td>
<td>26.8</td>
<td>129.8</td>
</tr>
<tr>
<td>Total</td>
<td>16.7</td>
<td>18.2</td>
<td>8.7</td>
</tr>
</tbody>
</table>

Source: Ministry of finance for each country.

1 Data are for 2000.

Impact of Budget Execution Systems on Budgetary Outcomes

Weaknesses in budget execution systems compound the difficulties that governments face in linking budgets and expenditures with strategic policies. Modern budget execution systems should assist governments in implementing budget plans by facilitating strategic changes in budgetary allocations during implementation, applying effective commitment controls and preventing significant expenditure arrears from building up, and providing sufficient analytical information for sound financial management. Experience from the CIS-7 countries indicates that weaknesses in budget execution prevent some of these objectives from being met.

Ability to Make Strategic Expenditure Cuts

CIS-7 ministries of finance have limited tools for making strategic budget reductions when there is a shortfall in revenues, since budgets themselves provide little information on the policy areas in which sector budgetary allocations are being spent. The lack of adequate information on how resources are being spent makes it impossible to monitor budget implementation effectively.

Current practices also restrict the ability of ministries of finance to reduce expenditures strategically. Most CIS-7 ministries of finance are prevented from making significant in-year expenditure cuts except through sequestration, which requires parliamentary approval. Many budget laws provide for protection and full financing of certain categories of payments, such as defense, debt servicing,
and entitlement programs. Since these items constitute a large proportion of the budget, the scope for expenditure cuts is limited severely. Furthermore, sequestration requires proportional cuts across all nonprotected items, further restricting the flexibility of the ministry of finance to identify low-priority areas. In addition, projects with aid agencies have disbursement schedules that limit maneuverability when revenues fall short of expectations.

Budgets tend to be appropriated by detailed economic item, further limiting the flexibility of sector ministries or the ministry of finance to move resources across economic items in order to use inputs more effectively. Recent reforms in Georgia and the Kyrgyz Republic have increased this flexibility by appropriating entire budgets to individual budgetary institutions such as hospitals, thereby enabling them to restructure budgetary inputs. Some of these institutions have recorded impressive efficiency gains as a result.

At the same time, there is rarely a mechanism for cutting expenditures by sector or program area. Expenditure budgets are enforced by function and economic item. Sector managers have little discretion to switch funds between items within a function. As a result, when overall budget reductions are required, budgets tend to be cut proportionally across all nonprotected items in all sectors, rather than prioritized by government policy areas, even in CIS-7 countries that have a medium-term budget framework. This problem is exacerbated by the highly centralized nature of expenditure control. In many CIS-7 countries, no specific individual in sector ministries is given explicit accountability for that ministry’s expenditures.

**Effectiveness of Commitment Controls**

Poor commitment recording and monitoring, exacerbated by weak fiscal discipline and the low credibility of the budget preparation process, lead budgetary institutions to take on commitments beyond their annual budget appropriations. The buildup of arrears reflects the lack of a functioning system of commitment controls. In many cases, monthly payment limits are lower than budget appropriations, but budgetary legislation often does not permit ministries of finance to contain expenditure commitments at a lower level. Since actual payment limits are below appropriations, local treasury branches will not authorize payment orders beyond these monthly limits, leading to the accumulation of unpaid invoices. These weaknesses are exacerbated by the paper-based systems used for recording, accounting, and reporting, leading to delays in information flows to the central treasury. Some CIS-7 countries have resorted to noncash transactions, including barter payments, as a way to reduce the stock of (cash) arrears by setting barter “prices” that are higher than market prices. In the Kyrgyz Republic, for example, an estimated 20 percent of state budget operations are noncash in nature.

At the same time, especially in Armenia, sector ministries are not adhering to payment limits that are set below the level of appropriations. Thus, when revenues are less than expected, a cash flow problem ensues. Spending ministries tend to take the view that their budget represents a guaranteed level of expenditure.
tures rather than an upper limit and thus find it difficult to reduce expenditures when there is a revenue shortfall. This is a rational response to the belief that if resources are not used, allocations will be reduced accordingly in the following year. However, it results in substantial payment arrears being carried forward and undermines strategic budgetary implementation.

**Effectiveness and Availability of Financial Management Information**

Timely and accurate reporting on budget implementation is weak, in part because of the absence of the necessary skills and authority in relevant departments in the ministry of finance and sector ministries to interpret the reports and make financial management decisions. Quarterly and annual budget implementation reports are intended to provide governments with the information they need to supervise and monitor budget implementation according to budget plans.

Several weaknesses impede the ability of governments to supervise and monitor budget implementation. In some countries, the ability to use the information on budget implementation is reduced by inconsistencies between the classification system used by the central treasury and that used by budgetary institutions, whose results are compiled by the relevant sector ministries. In addition, poor commitment controls mean that the budget implementation reports do not include information on total commitments, which limits the reports' effectiveness. Also, financial management decisions require timely reports on budget implementation. The paper-based systems used in most CIS-7 countries to collect data on budget implementation make timely reporting very difficult.

**Future Directions for Public Expenditure Management Reform**

Weaknesses in budget management and implementation systems throughout the CIS-7 countries have resulted in resources not being available when required and being used for purposes other than intended. The lack of adequate information on how resources are used makes it impossible to monitor budget implementation and to plan budgets effectively. Strengthening budget management and treasury systems is critical for ensuring that resources reach their intended destinations and for making timely information available to program managers and decision makers.

**Future Reform Directions**

A switch is already taking place from the pattern of ad hoc, piecemeal budgetary measures toward systematically planned, longer-term reform programs. The key challenge is to integrate fiscal and expenditure control issues directly into the policymaking process. This integration implies very different roles and capacities for the ministry of finance (in providing advice on major policy decisions, forecasting the budgetary effects of policy changes, and controlling expenditures) and for sector ministries and service managers (greater role and authority in budget analysis, preparation, and implementation).
Without better budget management, the economic reforms under way in the CIS-7 countries may be jeopardized. If appropriate resources are not being targeted to the desired reforms, the reforms either will not be carried out or will take considerably longer. And if governments are unable to monitor their budgets appropriately, particularly in terms of outcomes, they will not be able to adjust their reform programs and associated resources accordingly.

**Strategic Outlook**

Most of the institutional weaknesses in the budget process highlight the need for a more strategic approach to public expenditure planning, linking medium-term budgetary resource allocations to sector policies and planned expenditure programs. Several CIS-7 governments have sought to integrate the different elements of a strategic approach to public expenditure management by introducing a medium-term budget framework that provides a multiyear planning horizon, includes all public resources and private expenditures, and allows governments to decide on strategic budget choices. The principal elements of such a framework are a comprehensive macro-fiscal framework that provides a realistic basis for budgetary development, a series of sector expenditure strategies that link sector policies and expenditure priorities, and a set of multiyear expenditure plans that provide the resource ceilings within which sector ministries can plan their expenditure programs.

The CIS-7 countries with the beginnings of a medium-term budgetary framework process (Armenia, the Kyrgyz Republic, and Moldova) should concentrate in the short term on measures to strengthen the framework, particularly its presentation to government (ideally, to an economic or budgetary policy committee) before the issuance of guidelines for the following budget year. The aim in the medium to long term should be preparation and government approval of an operational medium-term budgetary framework with stable multiyear indicative sector ceilings within an overall realistic resource framework that sets out clear policy objectives, provides adequate resources to meet those objectives, and explicitly guides the preparation of the next annual budget. Building that framework will require strengthening and integrating capacities for policy development, programming, and budgeting at the sector level. The aim should be to ensure that expenditure programs both reflect policy priorities and are costed within a realistic and achievable resource envelope.

**Transparency**

Through public consultation and participation processes, Poverty Reduction Strategy Papers are emphasizing greater transparency and accountability in planning and implementing government policies and programs. While significant progress in increasing transparency has been made already through the introduction of a central treasury and improvements to budget classification and presentation, more work is needed, specifically in the following areas:
• preparing and publishing a summary of the medium-term budgetary framework and the annual budget for the general public, focusing on the use and impact of public resources;

• introducing an operational program classification that can generate program and activity-based expenditure policies for analysis. This classification will enable clear definition of policy expenditure commitments and estimation of the costs of ongoing government services;

• expanding the format of budget presentations to include sector objectives and programs to increase the transparency of sector budgets. This format will require a change in the methodology for estimating budgets, from estimating by rigid supply-side norms to a more policy-based analysis of how resources are currently used and how they may be targeted better to priority areas. Explicit links should be made with medium-term fiscal frameworks; and

• ensuring that budget preparation instructions are clear on the revised roles of sector ministry staff and the ministry of finance.

Accountability

More transparent budgets help improve the government’s accountability for the budget to the public. Further accountability within the budget system itself is needed to ensure that senior managers, in sector ministries and ministries of finance, are individually accountable during each stage of budget preparation and implementation. Reform areas to address include the following:

• Ensuring that the budget is appropriated by ministry and agency (the administrative classification) to facilitate accountability for budgetary spending. Doing so will give greater authority to sector ministers and accounting officers to program and manage their budgets to fulfill sector policies.

• Establishing a clear reporting line from an accounting officer in each sector ministry to parliament on the execution of sector budgets. Establishing this line involves assigning responsibility for executing budgets to a senior manager in sector ministries.

• Giving more authority to sector budget managers to implement their budgets within any set cash limits. Budget managers should have greater discretion for switching funds between economic items within a functional classification. Allowing managers some flexibility should motivate them to be more effective.

• Over time, increasing delegation for budget responsibility to budgetary institutions such as schools and health facilities, linked to the introduction of improved governance arrangements that ensure accountability to the local communities they serve. This delegation should be accompanied by a more appropriate role for the central ministries. Lessons can be drawn from international experiments focusing on accountability and sanctions for budget mismanagement. Training in financial management will be needed.
Legitimacy
The legitimacy of the budget depends on the active involvement of decision makers in setting budget parameters at the beginning of the process and on these parameters remaining reasonably stable during budget implementation. Reforms are needed in the following areas:

- ensuring earlier political involvement in the budget process, particularly during determination of budget ceilings, to help ministries keep their budget requests within expenditure ceilings;
- preparing a medium-term budgetary framework and presenting it to the government for approval before the start of the annual budget preparation process, to help ensure senior policymakers' involvement and approval of the overall budget parameters;
- emphasizing that sector ceilings will be adhered to in order to increase the legitimacy of these budgetary parameters; and
- respecting the role of budget managers (those responsible for service delivery) in the setting of budgets rather than imposing budgets from the top, to strengthen ownership of budgets by those responsible for delivering public services.

Credibility
To be credible, budgets must be achievable and close to eventual outcomes (budget deviation limited to those caused by external shocks). Reform areas to address include the following:

- improving the methodology for estimating revenue projections to prevent unnecessary changes during budget implementation;
- ensuring that the ministry of finance enforces sector ceilings during budget formulation. Budgets should be constructed by spending ministries, rather than imposed on them by the ministry of finance;
- introducing or strengthening a medium-term budgetary framework with credible multiyear indicative expenditure ceilings to increase both the predictability and credibility of the budget; and
- involving policymakers at an early stage of budget preparation to reduce unnecessary shifts in policy priorities during budget implementation.

Predictability
Large deviations in annual budgets make it difficult for governments to implement medium-term policies and for sector ministries to plan their policy reform measures effectively. Reforms to improve budget predictability include the following:
introducing or strengthening a medium-term budgetary framework with credible multiyear indicative expenditure ceilings; and
improving projections of multiyear revenues to increase the reliability of the macro-fiscal framework and sector ceilings.

Comprehensiveness
Budgets should include all cash and noncash transactions, including extrabudgetary funds, off-budget funds, and external finance. All resources should be prioritized according to the same procedures as for the domestic recurrent budget and subject to parliamentary scrutiny and to the associated discipline of the resource allocation process. Reforms to address include the following:

- incorporating all public investment revenues and expenditures into the medium-term budgetary framework and annual budget, with joint planning and monitoring of sectoral recurrent and development expenditures;
- requiring sector ministries to provide information in their budget submissions on off-budget revenues and expenditures consistent with overall sector policy priorities;
- presenting a consolidated budget that includes all extrabudgetary funds; and
- restricting the use of extrabudgetary funds.

Enforceability and Responsiveness
The budget system should be capable of responding to changed circumstances and should give budget managers some discretion in the use of funds in delivering services, provided expenditures do not exceed authorized amounts. Reforms to address include the following:

- strengthening the quality of macroeconomic information supporting preparation of the budget framework;
- improving revenue projections to lessen the risk of budget shortfalls, and when reductions are required, involving sectoral ministries in deciding on cuts;
- involving political decision makers earlier in the budget process to help reduce the number of ad hoc changes;
- improving budget preparation by introducing a programmatic structure to the budget and making better information available for making strategic budget cuts, where necessary;
- introducing or strengthening the methodology for ensuring strict recording of and accounting for commitments;
- improving the quality, consistency, and timeliness of information flows between budget users and the treasury to improve budget decision makers’ ability to take corrective action;
ensuring that the ministry of finance has sufficient institutional capacity to analyze and monitor these data;

• extending treasury reforms to local treasury branches and introducing new accounting systems based on the Treasury General Ledger to improve the quality of budget execution information available to decision makers; and

• making it easier for the ministry of finance to reappropriate funds for different administrative levels (government, sector ministries, budgetary institutions) and to move funds from wages to other economic items or from capital to recurrent expenditures, and for sector budget managers to implement and adjust their budgets within cash limits.

References


——, 2002b, World Development Indicators 2002 (Washington).

Mary Betley
6
Inequality and Poverty in the CIS-7 Countries, 1989–2002
Jane Falkingham

This chapter examines the evolution and current status of living standards and welfare following a decade of transition in seven of the poorest countries of the former Soviet Union (the CIS-7). At independence, the CIS-7 countries inherited high levels of human capital. Education and health care were universal and provided free at the point of delivery, and there were extensive social services and transfers. High social spending was supported by large budgetary transfers from Moscow. In the late 1980s and early 1990s, such transfers were worth as much as a third of gross domestic product (GDP) in Armenia and more than a fifth in Moldova. However, the republics of the Soviet state inherited economic structures that were heavily dependent on Soviet supply and trade networks. The Russian Federation was the main source of inputs and the main market for outputs. Transport and other infrastructure were designed with a view to meeting these trade needs and not necessarily those of the local economy.

The withdrawal of subsidies from Moscow following the breakup of the Soviet Union, combined with the interruption of intercountry trade and the imposition of tight government stabilization policies, resulted in a reduction in output across the region. A series of natural disasters, armed conflicts, and border disputes exacerbated the economic shock accompanying the breakup. The resultant decline in GDP per capita during the early transition years led to large increases in poverty and inequality. Even today, real output remains significantly below pretransition levels in all CIS-7 countries except Uzbekistan.

Trends in Income Inequality and Poverty
In the former Soviet Union, high levels of social expenditure and low wage differentials meant that the distribution of income was significantly more egalitarian than in most market economies. Poverty did not officially exist, although there were maloobespechenny (or “underprovisioned”) families—families that had less than a socially acceptable minimum consumption basket. A consumption basket

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1 Vandycke (2002).
reflecting the socially acceptable minimum for a community rather than a subsistence minimum was used to determine who was underprovisioned. On the basis of data from the 1988 Soviet Union Family Budget Survey, with 75 rubles as a proxy for the national poverty threshold, an estimated 11 percent of the population of the Soviet Union was poor. The proportion living in poverty varied considerably across the CIS-7, however. Poverty was relatively low (12–14 percent) in Armenia, Georgia, and Moldova, but higher than the Soviet average in Azerbaijan, the Kyrgyz Republic, Tajikistan, and Uzbekistan, where between a third and a half of the population were poor.

**Rising Income Inequality**

The decline in output since independence has been accompanied by increases in measured inequality. By the end of the 1990s, most of the CIS-7 countries had Gini coefficients well above even the top of the Organization for Economic Co-operation and Development (OECD) range (the United States, at 0.37). The increase has been particularly marked in Armenia, where the income Gini coefficient reached 0.57 in 1998/99. These changes occurred at an unprecedented pace, resulting in an acute sense of relative deprivation for those at the bottom of the distribution. When asked to place themselves on a nine-step ladder, with the first step being the poorest and the ninth step the richest, a majority in Tajikistan placed themselves on the bottom third of the ladder. Some researchers have questioned whether comparisons of inequality indices before and after the transition are meaningful. Indices may underestimate income disparities in 1989, as the old Family Budget Survey on which they are based was known to exclude people at each end of the distribution. However, the survey also failed to capture imputed income from the extensive in-kind benefits provided by state enterprises and local authorities, including subsidized housing, food and utility prices, health, and education. Studies in OECD countries have found that final income is more equally distributed than original or gross income. Thus, even if the exact magnitude is hard to measure, there can be no doubt of a significant shift in the distribution of resources within society during the 1990s and a widening of the gap between the top and the bottom of the distribution.

**Falling Real Wages and Rising Wage Differentials**

Several factors have contributed to the widening of the income distribution during transition, including a shift in the composition of income. In the Soviet Union in the late 1980s, 14 percent of gross income was from private sources, 13 percent from social transfers, and 72 percent from wages, while income from

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5 Falkingham (2000a).
6 World Bank (2000a).
8 Gardiner and others (1995).
property was nonexistent. By 2001, income from wage employment had fallen to 44 percent of monthly per capita income in Azerbaijan and 38 percent in the Kyrgyz Republic. Informal sector activity has grown rapidly, much of it small-scale survival activities (private plots, petty street trade, unofficial taxis) undertaken in the absence of formal work opportunities, sufficient wages, or a functioning social security system.

The growth in income from private sources was accompanied by a rise in earnings inequality (Table 6.1). Between 1989 and 2000, the Gini coefficient for the distribution of monthly earnings increased by more than two-thirds in Armenia and the Kyrgyz Republic and nearly doubled in Azerbaijan. Although nationally representative data are not available for Uzbekistan, a study using data from a survey sponsored by the European Union found that the decile ratio (the ratio of the 90th income percentile to the 10th percentile) had increased from 3.0 in 1986 to 6.5 for all earnings in 1995 and was a staggering 8.3 in the private sector.

Wage inequality has been fueled by growth of the importance of private sector and informal earnings and the failure to respect employment contracts, leading to widespread wage arrears. An estimated 30 to 45 percent of workers are in the informal sector, either full-time or as a secondary activity.

Material Poverty

In addition to exacerbating the disadvantage of the “old poor”—pensioners, families with large numbers of children, and single-parent families—the economic dislocation of transition has given rise to new groups of poor, including the families of workers “on leave without pay,” the long-term unemployed, agricultural workers, young people in search of their first job, and a growing number of refugees.

It is difficult to construct a set of poverty statistics that allow comparisons across time within a country and across countries at any one time, because definitions, survey methodologies, and coverage all vary. Still, on the basis of two international poverty lines, at the end of a decade of transition, an estimated 31 million people in the CIS-7 countries were living in poverty—almost half of them in extreme poverty (Table 6.2). The problem of low living standards is thus widespread, with the majority of the population living below the US$4.30 (in purchasing power parity terms) a day poverty line. Poverty rates measured according to national poverty lines point to similarly high levels of impoverishment, and the ranking of countries remains more or less the same (Table 6.3).

For countries with time series data, the proportion of the population living in poverty appears to have peaked in 1999 following the aftermath of the Russian financial crisis, with improvements thereafter, except in Georgia, where poverty has stabilized but has not yet started to recover. The changes in poverty over

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10 World Bank (2002b).
11 Bernabe (2002).
13 Bernabe (2002).
## Table 6.1. Gini Coefficient of Earnings in the CIS-7, 1989-2000

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Armenia</td>
<td>0.258</td>
<td>0.296</td>
<td>0.355</td>
<td>0.366</td>
<td>0.321</td>
<td>0.381</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>0.486</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>0.275</td>
<td>—</td>
<td>0.361</td>
<td>—</td>
<td>0.428</td>
<td>0.459</td>
<td>0.458</td>
<td>0.462</td>
<td>0.462</td>
<td>—</td>
<td>0.506</td>
</tr>
<tr>
<td>Georgia</td>
<td>0.301</td>
<td>—</td>
<td>0.369</td>
<td>0.400</td>
<td>—</td>
<td>—</td>
<td>0.498</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Kyrgyz Republic</td>
<td>0.260</td>
<td>—</td>
<td>0.300</td>
<td>0.445</td>
<td>0.443</td>
<td>0.395</td>
<td>0.428</td>
<td>0.431</td>
<td>0.429</td>
<td>0.466</td>
<td>0.470</td>
</tr>
<tr>
<td>Moldova(^1)</td>
<td>0.250</td>
<td>—</td>
<td>0.411</td>
<td>0.437</td>
<td>0.379</td>
<td>0.390</td>
<td>0.414</td>
<td>—</td>
<td>0.426</td>
<td>0.441</td>
<td>0.392</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>0.276</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>0.257</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>


Note: The Gini coefficient is based on the distribution of earnings interpolated from group data for monthly earnings, with bonuses, for full-time employees, as reported by employers.

\(^1\) Data for 1993-2000 exclude Transnistria.
Table 6.2. Poverty in the CIS-7 Using International Poverty Standards, 1999

<table>
<thead>
<tr>
<th>Country</th>
<th>Extreme Poverty (PPP$2.15/day; percent)</th>
<th>Total Poverty (PPP$4.30/day; percent)</th>
<th>Total Population Extremely Poor (millions)</th>
<th>Total Population Poor (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armenia</td>
<td>43.5</td>
<td>86.2</td>
<td>1.65</td>
<td>3.27</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>23.5</td>
<td>64.2</td>
<td>1.87</td>
<td>5.10</td>
</tr>
<tr>
<td>Georgia</td>
<td>18.9</td>
<td>54.2</td>
<td>1.02</td>
<td>2.93</td>
</tr>
<tr>
<td>Kyrgyz Republic</td>
<td>49.1</td>
<td>84.1</td>
<td>2.36</td>
<td>4.04</td>
</tr>
<tr>
<td>Moldova</td>
<td>55.4</td>
<td>84.6</td>
<td>2.02</td>
<td>3.09</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>68.3</td>
<td>95.8</td>
<td>4.10</td>
<td>5.75</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>—</td>
<td>—</td>
<td>2.23</td>
<td>6.79</td>
</tr>
<tr>
<td>All CIS-7</td>
<td>—</td>
<td>—</td>
<td>15.26</td>
<td>30.88</td>
</tr>
</tbody>
</table>

Sources: World Bank (2000a); for Uzbekistan, World Bank (2002e).

Note: Poverty lines are in purchasing power parity (PPP) terms.

1 Data are for 1998.

2Derived using poverty rates from World Bank (2002e). The actual numbers living below the two poverty lines are likely to be much higher.

time appear to be consistent with GDP growth. In particular, Armenia and Azerbaijan both experienced strong economic growth during 2000–02, and both recorded significant reductions in headcount poverty.

**Poverty and the 1998 Russian Financial Crisis**

The Russian financial crisis of August 1998 affected economic growth in some of the CIS-7 countries more than others. Azerbaijan appears to have been largely immune to any fallout, with growth rates only slightly lower in 1999 than in 1998 and quickly returning to double digits. Azerbaijan was protected by the large share of oil revenues in GDP. In contrast, Moldova was especially hard hit, with negative growth in both 1998 and 1999, reflecting Russia’s importance as a major market for Moldovan exports. As Moldova achieved some macro stability and trading conditions started to improve in 2000, poverty also started to fall. By 2001, headcount poverty rates appear to have returned to their 1998 level, but they remained significantly above their precrisis 1997 level.

Table 6.3. Poverty Estimates in the CIS-7 Countries Based on National Poverty Lines, Various Years

<table>
<thead>
<tr>
<th>Country and Year</th>
<th>Poverty Rate (percent)</th>
<th>Poverty Gap (P1)</th>
<th>Severity of Poverty (P2)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Armenia</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td>54.7</td>
<td>0.215</td>
<td>0.11</td>
</tr>
<tr>
<td>1998/99</td>
<td>53.7</td>
<td>0.155</td>
<td>0.061</td>
</tr>
<tr>
<td>2001</td>
<td>47.4</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Azerbaijan</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td>68.1</td>
<td>0.276</td>
<td>0.144</td>
</tr>
<tr>
<td>2001b</td>
<td>49.6(^1)</td>
<td>0.155</td>
<td>0.067</td>
</tr>
<tr>
<td><strong>Georgia(^2)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td>13.7</td>
<td>0.041</td>
<td>0.019</td>
</tr>
<tr>
<td>1998</td>
<td>19.8</td>
<td>0.066</td>
<td>0.033</td>
</tr>
<tr>
<td>1999</td>
<td>23.2</td>
<td>0.074</td>
<td>0.035</td>
</tr>
<tr>
<td>2000</td>
<td>23.1</td>
<td>0.075</td>
<td>0.056</td>
</tr>
<tr>
<td><strong>Georgia(^3)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td>43.6(^4)</td>
<td>0.156</td>
<td>0.095</td>
</tr>
<tr>
<td>1998</td>
<td>50.2</td>
<td>0.195</td>
<td>0.112</td>
</tr>
<tr>
<td>1999</td>
<td>51.4</td>
<td>0.203</td>
<td>0.108</td>
</tr>
<tr>
<td>2000</td>
<td>51.4</td>
<td>0.207</td>
<td>0.111</td>
</tr>
<tr>
<td><strong>Kyrgyz Republic</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>45.4</td>
<td>0.227</td>
<td>0.149</td>
</tr>
<tr>
<td>Fall 1996</td>
<td>51.9</td>
<td>0.200</td>
<td>—</td>
</tr>
<tr>
<td>1997</td>
<td>51.0</td>
<td>0.180</td>
<td>—</td>
</tr>
<tr>
<td>1998</td>
<td>63.6</td>
<td>0.247</td>
<td>—</td>
</tr>
<tr>
<td>1999</td>
<td>64.1</td>
<td>0.250</td>
<td>—</td>
</tr>
<tr>
<td>2000</td>
<td>62.5</td>
<td>0.211</td>
<td>0.093</td>
</tr>
<tr>
<td>2001</td>
<td>56.4</td>
<td>0.172</td>
<td>0.070</td>
</tr>
<tr>
<td><strong>Moldova</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td>47.7</td>
<td>0.167</td>
<td>0.081</td>
</tr>
<tr>
<td>1998</td>
<td>61.6</td>
<td>0.251</td>
<td>0.133</td>
</tr>
<tr>
<td>1999</td>
<td>71.1</td>
<td>0.296</td>
<td>0.157</td>
</tr>
<tr>
<td>2000</td>
<td>70.5</td>
<td>0.289</td>
<td>0.151</td>
</tr>
<tr>
<td>2001</td>
<td>62.3</td>
<td>0.241</td>
<td>0.121</td>
</tr>
<tr>
<td><strong>Tajikistan</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>95.7</td>
<td>0.574</td>
<td>0.379</td>
</tr>
<tr>
<td><strong>Uzbekistan</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000/01</td>
<td>27.5</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>


Note: Because of changes in welfare indicators, poverty lines and survey methodology estimates are not directly comparable over time. Except as noted, the welfare indicator is per capita consumption, and the poverty line is the national subsistence minimum.

\(^1\) Consumption aggregate based on food only.

\(^2\) World Bank estimates.

\(^3\) Government estimates.

\(^4\) Poverty line is taken as the living wage.
The Kyrgyz Republic also experienced a slowdown in real economic growth in 1998, with growth rates falling from nearly 10 percent in 1997 to just 2 percent in 1998. Since then, however, the country has benefited from a strong economic recovery, with growth exceeding 5 percent a year after 2000. Per capita consumption in rural areas was further aided by egalitarian land reform and liberalization of agricultural markets. As a result, poverty fell 23 percent between 1998 and 2001, though it remains high.\textsuperscript{15}

There is some evidence that the economic shock following the Russian financial crisis affected different groups differently. Between 1997 and 1998, mean consumption fell 33 percent in the Kyrgyz Republic.\textsuperscript{16} The largest falls were experienced by households at the top of the distribution, with the top quintile suffering a loss of almost two-fifths over the previous year.\textsuperscript{17} The same picture was observed in Moldova, with better-off households more affected by the economic shock than the less well off.\textsuperscript{18} Better-off households included those that had benefited disproportionately from the period of growth prior to the crisis—the self-employed and private sector workers. The crisis wiped out their previous welfare gains. In Armenia, the effect of the shock was relatively short-lived and disproportionately affected those living in urban areas.\textsuperscript{19}

A slightly different picture emerges in Georgia. The sharpest increase came in the measure of poverty severity, which captures inequality among the poor—indicating that the poorest are becoming even poorer.\textsuperscript{20}

**Who Are the Poor?**

Reducing poverty requires knowing which groups are most at risk of being or becoming poor. The growing availability of household survey data makes it possible to establish a detailed socioeconomic profile of the poor in each of the CIS-7 countries. Several common characteristics are associated with an elevated risk of poverty.

**Urban and Rural Location**

Urban-rural differences in poverty are marked, with the size and direction of the differences being related to the degree of urbanization. In the most urbanized of the CIS-7 countries—Armenia, Azerbaijan, and Georgia—urban households have a higher risk of being poor than rural households. For example, in Armenia in 1998/99, 55 percent of the population in urban areas was poor compared with 41 percent in rural areas (Table 6.4).\textsuperscript{21} In contrast, in countries where more than half the population lives in rural areas, the risk of poverty is lower in urban than in

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\textsuperscript{15} World Bank (2002c).
\textsuperscript{16} Falkingham, Namazie, and Siyam (2002).
\textsuperscript{17} Falkingham, Namazie, and Siyam (2002).
\textsuperscript{18} Signoret and Murrugarra (2002).
\textsuperscript{19} World Bank (2002a).
\textsuperscript{20} World Bank (2002c).
\textsuperscript{21} World Bank (2002a).
Table 6.4. Rural-Urban Poverty Differentials in the CIS-7, Latest Available Survey Data  
(In percent)

<table>
<thead>
<tr>
<th>Country and Survey Year</th>
<th>Headcount Poverty Rate</th>
<th>Share of Population Living in Rural Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban</td>
<td>Rural</td>
</tr>
<tr>
<td>Armenia, 1998/99</td>
<td>55.0</td>
<td>40.6</td>
</tr>
<tr>
<td>2001(^1)</td>
<td>48.0</td>
<td>46.4</td>
</tr>
<tr>
<td>Georgia, 1999</td>
<td>59.3</td>
<td>41.1</td>
</tr>
<tr>
<td>Kyrgyz Republic, 2001</td>
<td>45.4</td>
<td>62.4</td>
</tr>
<tr>
<td>Moldova, 1997</td>
<td>17.2(^2)</td>
<td>21.1</td>
</tr>
<tr>
<td>Tajikistan, 1999</td>
<td>79.4</td>
<td>99.5</td>
</tr>
<tr>
<td>Uzbekistan, 2001</td>
<td>22.5</td>
<td>30.5</td>
</tr>
</tbody>
</table>

\(^1\) Preliminary findings.  
\(^2\) Excludes the capital, Chisinau, where poverty incidence was estimated at 6.7 percent.

rural areas. Several factors have been proposed to explain the pattern of poverty in Armenia, and some may be relevant to other CIS-7 countries. First, Armenia experienced early and relatively egalitarian land reform. Collective and state-owned agricultural land was redistributed in 1995, and access to land has provided a self-protection mechanism for rural households, enabling them to grow some food for their own consumption. Urban households did not have this coping mechanism. Second, urban households were more affected by the financial crisis in Russia. Many urban households have relied on migration to Russia as an income diversification strategy. Remittances account for an average of 17 percent of urban household income, compared with 4 percent in rural areas.\(^2\) Remittances received a double setback in 1998, as migrant workers in Russia were directly affected by the crisis and their reduced remittances lost value with the devaluation of the Russian ruble. Preliminary results from the 2001 Armenian household survey, however, show a narrowing of the rural-urban gap since 1998/99, as the incidence of poverty rose in rural areas and declined in urban areas (see Table 6.4).

In countries where the majority of the population lives in rural areas, reliance on income agriculture offers no guarantee against poverty. In the Kyrgyz Republic, rural poverty was 1.4 times higher in rural than in urban areas in 2001, despite the high growth rate in agriculture value added that accompanied land reform in the late 1990s.

Inhabitants of small towns, without the employment opportunities of larger cities and with reduced possibilities to engage in subsistence agriculture for food consumption, also face an increased risk of poverty. In Moldova in 2001, 80 percent of the population in small towns were living in poverty, compared with 64 percent in rural areas and 44 percent in large cities. Residents of one-company towns face particular difficulties. Restructuring or closing these enterprises causes local unemployment rates to skyrocket, and those who are still working are often subject to short hours or administrative leave.

Both urban and rural poverty continue to represent a substantial challenge in all the CIS-7 countries. In urban areas, poverty is often associated with falling employment opportunities and earnings in the formal economy, reflecting the ongoing restructuring of the industrial complex inherited from the Soviet era. So far, outside the capital cities, the emerging private sector in urban areas has been too small to compensate for the collapsed industrial base. Sustainable poverty reduction will depend on enhanced employment creation within a vibrant private sector.

**Household Size and Demographic Composition**

The risk of poverty increases with household size. Poor households are generally larger than nonpoor households. However, the relationship between poverty and household size is not straightforward. An increase in the number of adults would tend to reduce the risk of household poverty, since the earnings potential of the household should increase with the number of adults. This is found to be the case in the Kyrgyz Republic, where households with three to four adults have lower relative poverty rates than households with only two adults, no matter how many children are present. Thus, households with a large number of children—particularly preschool children—are most at risk of poverty.

Several factors explain why poverty increases with the number of children in the household. First, the presence of children reduces the probability of employment for women. Second, large family size is associated with other characteristics, such as low education, that result in low earnings. Third, households with more children simply have more mouths to feed. Thus, as household size increases, total income adjusted for needs declines.

**Education**

From studies elsewhere in the world, a strong positive association is expected between a household’s ability to avoid poverty and its asset holdings—including its human capital. Yet many of the early poverty assessments in the CIS-7 countries found only a weak association, if any. These results reflected both the magnitude of the economic dislocation associated with transition to a market
economy, with all groups being hit regardless of education, and the perverse labor market incentives for human capital acquisition during the Soviet period, when many of the best educated (teachers, professional workers) received lower pay than those with less education (factory workers, miners).

The advantage conferred by primary and secondary education remains low in the CIS-7 compared with OECD and Central and Eastern European countries. However, there are signs of change. In Armenia, education of the household head is found to be associated with increased consumption, with greater gains for those with technical secondary and higher education. In Uzbekistan, households in which the head has a higher education were half as likely to be poor as those in which the head had nine or fewer years of education. In Azerbaijan in 2001, living in a household headed by a person with higher education reduced the risk of being poor from 50 percent to 42 percent.

In Georgia and the Kyrgyz Republic, education also reduced the negative impact of the economic shock associated with the Russian financial crisis, with households whose head had a vocational and technical education suffering less than others. It is likely that as the labor market becomes more efficient, the link between education and earnings will strengthen. That makes it vitally important that children from poor households be guaranteed the opportunity to benefit from education—an opportunity that appears to be under threat (see below).

**Employment**

Early poverty assessments found that employment was not a guarantee against poverty, although having a job was better than being unemployed or not in the labor force at all. Low differentials in poverty rates between workers and the unemployed reflected substantial wage arrears and large numbers of workers on unpaid leave or shortened hours. In all CIS-7 countries, a substantial group of new poor emerged: the working poor.

Many enterprises have adjusted wages and hours rather than employment. Thus, although official unemployment rates remain low, there is substantial concealed unemployment. Wage arrears reached epidemic proportions in many of the CIS-7 by the end of the 1990s. Arrears in the public sector alone were at 1 percent of GDP in Georgia, 1.6 percent in Moldova, and 2.7 percent in Armenia at the end of 1999. In Tajikistan in 1999, it is estimated that more than 35 percent of the workforce suffered from some wage arrears. The earnings of the poor are more subject to delays than those of other groups. An analysis

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27 World Bank (2000a).
29 World Bank (2002c).
30 World Bank (2002b).
31 World Bank (2002c) and Falkingham, Namazie, and Siyam (2002).
32 Ackland and Falkingham (1997).
33 World Bank (2000a).
34 World Bank (2000b).
of the Survey of Georgian Households found that 22 percent of poor wage earners were owed back pay by their employers, compared with 8 percent of the nonpoor.\textsuperscript{35}

Despite the late payments, many workers have been slow to leave their jobs. In part this is because there are few opportunities elsewhere. Employees also stay to retain access to other job-related benefits—particularly housing—and to preserve routine and maintain self-respect. And there is always the hope that the enterprise will revive and become viable again.

**Refugees and Internally Displaced Persons**

Refugees and internally displaced persons are particularly vulnerable to poverty, often experiencing loss of property and harsh living conditions in collective centers. They may also experience discrimination in the job market. Children are particularly hard hit by armed conflict. The consequences for them include disruption of schooling, exposure to war trauma, loss of family, and poverty.\textsuperscript{36}

Armed conflict has affected all the CIS-7 countries at some stage since 1989 (Box 6.1). Up to a million people have had to flee their homes, and though many of them have returned, hundreds of thousands of people are still registered as internally displaced within their countries or living as refugees in foreign countries (Table 6.5). In 2001, there were more than a quarter million refugees registered in Armenia and more than half a million internally displaced persons in Azerbaijan and a million in Georgia.\textsuperscript{37} The region also has been affected by the recent conflict in Afghanistan, with refugees seeking safety in Uzbekistan, Tajikistan, and the Kyrgyz Republic. Georgia has a growing number of refugees from neighboring Chechnya. An estimated 8,000 Chechen refugees—the vast majority of them women, children, or elderly—are living in the Pankisi valley.

Despite the great number of internally displaced persons within the region, relatively little is known about their poverty status. In May 2000, a special survey of internally displaced persons was conducted in Georgia under the auspices of the International Federation of Red Cross and Red Crescent Societies. Not surprisingly, it found that internally displaced persons experienced a substantial disadvantage with respect to ownership of productive assets (especially land) and employment opportunities.

**Trends in Capability Poverty**

It is sometimes argued that estimates of output in transition economies are unreliable and that declining income and rising poverty are exaggerated.\textsuperscript{38} It is useful, then, to look at evidence of other dimensions of poverty to get a fuller

\textsuperscript{35} Yemtsov (1999).
\textsuperscript{36} UNICEF (2001).
\textsuperscript{37} UNHCR (2002).
\textsuperscript{38} Griffin (1998).
Box 6.1. Armed Conflicts in the CIS-7

- Armenia and Azerbaijan, 1988–94. As a result of the war over the territory of Nagorno-Karabakh, about one million people have been uprooted from their homes.
- Central Asia, the Fergana Valley, 1989–91. There has been ongoing tension in the Fergana Valley, which straddles the borders of the Kyrgyz Republic, Tajikistan, and Uzbekistan. Events escalated in 1989, when violent outbreaks resulted in hundreds of deaths and extensive property damage.
- Georgia, 1990–94. Fighting in South Ossetia in late 1990 resulted in the displacement of 50,000 to 90,000 people. This was followed by conflict in Abkhazia, when hundreds of thousands of people were uprooted. The situation began to stabilize in 1994, although permanent political settlement remains elusive.
- Moldova, 1992. Following a short and intense conflict, the country split, with the area of Transnistria, which contains much of the industrial base of the country, declaring independence.
- Tajikistan, 1992–97. The civil war in 1992–93 was followed by continuous unrest until the signing of the peace accord in 1997. During this period, an estimated 50,000 people lost their lives and up to 700,000 people were displaced. Intermittent unrest continues, and refugees continue to return from other countries of the CIS.

picture of the changes in welfare during transition. Capability poverty looks at an individual's capacity to live a healthy life, free of avoidable disease, with adequate nourishment, being informed and knowledgeable, capable of reproduction, enjoying personal security, and able to participate freely in society. Material resources at some level are generally necessary for some of these activities, but they are not sufficient.

Capability poverty can be measured directly in terms of capabilities themselves (percentage of children who are underweight, percentage of adults who are illiterate) or indirectly in terms of access to opportunities (access to trained health personnel at birth, access to education and other public services). This multidimensional nature of poverty is explicitly recognized by the internationally agreed Millennium Development Goals, which address aspects of poverty that are important in their own right and that interact and reinforce other aspects of poverty.

Government spending as a share of GDP has declined in the CIS-7 over the past decade. Since one of the aims of transition is to reduce the once all-encompassing role of the state, a decrease in government spending is to be expected. However, in several countries, the share of government spending is now so low that the functioning of vital state services may be impaired. Public expenditures on health (and education) are now at critically low levels in Armenia, Georgia, and Tajikistan, having fallen below 2 percent of GDP (Table 6.6)—most OECD governments spend 5 to 7 percent of GDP on health and education.

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<table>
<thead>
<tr>
<th>Country</th>
<th>Refugees</th>
<th>Internally Displaced Persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armenia</td>
<td>264,300</td>
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</tr>
<tr>
<td>Azerbaijan</td>
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</tr>
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<td>Georgia</td>
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<tr>
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<td>—</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>18,000</td>
<td>—</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>41,000</td>
<td>—</td>
</tr>
</tbody>
</table>

Source: UNHCR (2002).
1 Includes 6,500 asylum seekers.
2 Some 2,300 of these are returned refugees.

care. With the drop in government expenditure, private spending has necessarily increased. However, the introduction of charges for health care, textbooks, and school lunches and the increasing cost of public transport all mean that access to basic social services has been eroded severely. This situation is likely to be reflected in a deterioration in the indicators of capability poverty over time.

**Health**

Health is an important dimension of well-being. Several factors can affect health status, from access to health services and safe drinking water to adequate nutrition. This fact is reflected in the three Millennium Development Goals that address health: reducing infant and child mortality, improving maternal health, and combating HIV/AIDS, malaria, and other diseases. By all these measures, health status has deteriorated in the CIS-7.

**Access to Health Care**

An important determinant of good health is access to good-quality health care. During the Soviet era, health care provision was extensive and free at the point of delivery. Since independence, however, health services have deteriorated rapidly in the face of severe financial constraints, exacerbated in some areas by extensive damage to infrastructure during the armed conflicts that have wracked the region.

Trends in the use of health care services over time are difficult to interpret, being affected by both demand and supply factors. It is clear, however, that the widening gap between health care budgets and the actual costs of care has resulted in diminished quality of services and an increased burden on households,
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</tbody>
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Note: Public expenditures represent current and capital expenditures on health and education by local, regional, and national governments. Household contributions are normally excluded.
including under-the-counter payments outside official payment channels.\textsuperscript{40} Such informal user charges for consultations are frequently imposed to help subsidize salaries, despite the fact that such consultations officially remain free of charge. And although medical supplies and drugs required as part of inpatient treatment remain free in principle, patients increasingly have to purchase them because they are unavailable in medical facilities.

There is a small but growing body of evidence that this increase in out-of-pocket payments is affecting access to health care. In a 2001 household survey designed to collect information on the use of heath care services in the Kyrgyz Republic, 7 percent of men and 12 percent of women reported that they had sought medical assistance in the past 30 days.\textsuperscript{41} Another 10 percent of men and 16 percent of women reported that they had needed medical assistance but had not sought treatment. The main reason given for not seeking health care was self-medication using pharmaceuticals (57–58 percent) or herbs (13–14 percent). However, 14 percent of men and 15 percent of women reported that they did not seek medical assistance because it was “too expensive.” Among those who consulted medical providers, total payments for the consultation constituted an average of 10 percent of household monthly expenditures for the poorest households and 5 percent for the richest.\textsuperscript{42}

Of all households reporting that they needed health care in the past year in the Kyrgyz Republic, 18 percent said it had been very difficult to pay for such care, and a further 42 percent reported that it had been difficult. Over half the households reported reducing current consumption to meet health care costs, a third received help from relatives, and 27 percent borrowed money. The picture elsewhere in the CIS-7 is similar.

The current mixture of unregulated prescription charges and payments for consultations that has emerged across the CIS-7 is both inefficient and inequitable. Costs to users vary widely and arbitrarily. Ability to pay for health care is now a major problem for the poor, and there is growing evidence that despite informal systems of targeting, access to health care is being affected. The challenge facing policymakers is to ensure equity in access to health care. The long-term development prospects of a country rest on its human, intellectual, and social capital.

Access to Safe Drinking Water and Other Services

Good health also is affected by environmental factors, particularly access to safe drinking water. Again, households that suffer material poverty are likely to be disadvantaged with respect to access to utilities. The recent Household Budget Survey in Uzbekistan found that poorer households live in homes with less access

\textsuperscript{40} Falkingham (2002) and Lewis (2002).
\textsuperscript{41} Falkingham (2001).
\textsuperscript{42} Falkingham (2001).
to running water and public sewerage. Similar patterns are found elsewhere in the region.

There are also significant differences in environmental and health conditions between urban and rural areas. In the Kyrgyz Republic, the average access of the richest quintile in rural areas to each of four health and sanitary indicators was worse than that of the poorest quintile in urban areas. Moreover, the poorest two quintiles in rural areas live in houses without a flush toilet or shower.

Statistics on access alone can be misleading, overstating the proportion of the population enjoying safe water and utilities. A survey in Azerbaijan found that although 95 percent of the households in Baku reported being connected to the water system, water was available only 22 days of each month, on average, and for only four hours a day. Moreover, 87 percent of households believed that the piped water they received was unsafe. The poor in Baku were even less likely to have water every day and throughout the day and were more likely to report illness attributable to water. 43 Similarly, while most households in Armenia have piped water, service is unreliable. About 12 percent of households report being without water for three months or more. 44 Significant investments in infrastructure, particularly in rural areas, will be needed if the Millennium Development Goal target of reducing by half the proportion of the population without access to an improved water source is to be achieved by 2015.

**Mortality and Life Expectancy**

The most fundamental measure of the well-being of a population is how long its members can expect to live, on average. By this measure, it is clear that the health of the population deteriorated in most of the CIS-7 during 1990–1995, with declines in life expectancy for women in four of the seven countries and declines for men in five countries (Table 6.7). Mortality rates began to improve in the mid-1990s.

Life expectancy rates are heavily influenced by trends in infant and child mortality. However, there is sometimes considerable discrepancy between mortality rates drawn from vital statistics registries and those from surveys that ask women about their reproductive health. 45 A comparison of infant and child mortality rates from these two sources confirms that rates calculated from survey data are consistently higher than those from official data. In Azerbaijan and Tajikistan they are more than three times as high, reaching levels close to those in India or parts of Africa (Table 6.8). 46

Several factors have been put forth to explain the discrepancies, including differences in the definition of live birth 47 and the decline in the proportion of births registered because of increased fees—around 3 percent of average monthly

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44 World Bank (2002a).
45 Bos and others (2002).
46 UNDP (2002).
47 McKee and Chenet (2002).
wages in Azerbaijan and the Kyrgyz Republic, 10 percent in Georgia, and a staggering 53 percent in Tajikistan.\(^48\)

Data on adult mortality are more reliable. The mortality crisis among Russian men has attracted considerable attention, with much being written about its causes and the relationship to poverty, unemployment, depression, and alcohol.\(^49\) The fact that male mortality also increased elsewhere in the former Soviet Union has received less comment.

Adult male mortality rose significantly in the mid-1990s in the Kyrgyz Republic and Moldova and remained above the pretransition level at the end of the decade (Figure 6.1). The impact of the civil war in Tajikistan is also clearly visible in the data. Indicators of women's health are, on average, significantly worse in the CIS-7 than in developed countries. Maternal mortality rates are particularly high in Tajikistan, at 74.0 per 100,000 live births (1993), Georgia, 56.9 (2000), and Armenia, 52.5 (2000). By comparison, the average is under 10 in most European Union (EU) countries. Before independence, rates in the Kyrgyz Republic were similar to those in neighboring republics, at 55.6 per 100,000 in 1991, but since then, rates have improved to 33.6 in 1998, almost certainly because of a new reproductive health program. Maternal mortality also has fallen significantly in Uzbekistan (from 30.1 in 1992 to 14.7 in 1999), again largely the result of increased contraceptive use and better reproductive health services.

\(^{48}\) UNICEF (2002a).


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**Table 6.7. Life Expectancy at Birth, CIS-7, 1989-2000**

(In years)

<table>
<thead>
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</tr>
</thead>
<tbody>
<tr>
<td>Armenia</td>
<td>74.7</td>
<td>75.9</td>
<td>74.5</td>
<td>69.0</td>
<td>68.9</td>
<td>70.5</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>74.2</td>
<td>72.9</td>
<td>75.1</td>
<td>66.6</td>
<td>65.2</td>
<td>68.6</td>
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<tr>
<td>Georgia</td>
<td>75.7</td>
<td>80.6</td>
<td>78.1</td>
<td>68.1</td>
<td>72.6</td>
<td>73.9</td>
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<td>72.4</td>
<td>70.4</td>
<td>72.4</td>
<td>64.3</td>
<td>61.4</td>
<td>64.9</td>
</tr>
<tr>
<td>Moldova</td>
<td>72.3</td>
<td>69.7</td>
<td>71.2</td>
<td>65.5</td>
<td>61.8</td>
<td>63.9</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>71.8</td>
<td>69.1</td>
<td>70.8(^1)</td>
<td>56.7</td>
<td>63.6</td>
<td>66.1(^1)</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>72.1</td>
<td>72.6</td>
<td>73.0(^2)</td>
<td>66.0</td>
<td>67.8</td>
<td>68.2(^2)</td>
</tr>
</tbody>
</table>


\(^1\) 1999.

\(^2\) 1998.
Table 6.8. Infant and Child Mortality Rates in Five of the CIS-7 Countries, Latest Available Survey Data
(Deaths per thousand live births)

<table>
<thead>
<tr>
<th>Country and Year</th>
<th>Survey</th>
<th>Reference Year</th>
<th>Infant Mortality Rate (per 1,000 live births)</th>
<th>Under-Five Mortality Rate (per 1,000 live births)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armenia</td>
<td>Demographic and Health Survey</td>
<td>1993</td>
<td>51</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1998</td>
<td>36</td>
<td>39</td>
</tr>
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<td>Azerbaijan</td>
<td>Multiple Indicator Cluster Survey</td>
<td>1996</td>
<td>76</td>
<td>106</td>
</tr>
<tr>
<td>Kyrgyz Republic</td>
<td>Demographic and Health Survey</td>
<td>1990</td>
<td>71</td>
<td>79</td>
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<td></td>
<td></td>
<td>1995</td>
<td>61</td>
<td>72</td>
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<td>Multiple Indicator Cluster Survey</td>
<td>1993</td>
<td>89</td>
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<td>Tajikistan Living Standards Survey</td>
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<td>82</td>
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<td>Demographic and Health Survey</td>
<td>1993</td>
<td>49</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>Multiple Indicator Cluster Survey</td>
<td>1999</td>
<td>52</td>
<td>69</td>
</tr>
</tbody>
</table>

Sources: Vital statistics registration data from UNICEF (2002b), except for Tajikistan 1997, which is from the National Human Development Report.
Note: For Demographic and Health Survey, reference years are for midpoint of five-year reference category.
Several factors have been put forward to explain the discrepancies, including differences in the definition of live birth and the decline in the proportion of births registered because of increased fees—around 3 percent of average monthly wages in Azerbaijan and the Kyrgyz Republic, 10 percent in Georgia, and a staggering 53 percent in Tajikistan.
Nutritional Status

There is concern that the level and depth of income poverty faced by households within the region may be affecting children's nutritional status, with subsequent long-term developmental consequences.

In the CIS-7 countries, the percentage of children classified as stunted (low height for age) is significantly greater than the World Health Organization (WHO) standard of 2.3 percent of children below two standard deviations of the reference population (Table 6.9). The rate of stunting in Tajikistan is particularly worrying, despite the improvement in 2002. Contrary to expectations that access to food would be higher in rural areas and malnutrition lower, the reverse is true, with stunting and wasting (low weight for height) worse in rural areas. More than a quarter of children under 5 in rural Kyrgyz Republic and nearly a third of children in rural Uzbekistan exhibit signs of chronic undernutrition. Around a fifth of rural Azeri children have poor nutritional health.

Countries with high levels of material poverty, such as the Kyrgyz Republic and Tajikistan (see Tables 6.2 and 6.3), also have more malnourished children (see Table 6.9). Children from the poorest 20 percent of households were twice as likely to experience chronic malnutrition as children from the richest 20 percent.\(^{50}\) In addition to being positively correlated with other indicators of well-being at a national level, child nutritional status is strongly associated with indicators of socioeconomic status at the household level. Children whose mothers have a postsecondary school education are less likely to suffer from malnutrition than children whose mothers have only a secondary education or less. There is also a clear gradient in nutritional status by household economic status as measured by ownership of selected assets, characteristics of the dwelling, and access to amenities.

\(^{50}\) UNICEF (2002).
### Table 6.9. Share of Children Under Five Severely or Moderately Undernourished

(In percent)

<table>
<thead>
<tr>
<th>Country and Year</th>
<th>Survey</th>
<th>Underweight (low weight for age)</th>
<th>Stunted (low height for age)</th>
<th>Wasted (low weight for height)</th>
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<td>Multiple Indicator Cluster Survey</td>
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</tr>
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<td>Demographic and Health Survey</td>
<td>11.0</td>
<td>24.8</td>
<td>3.4</td>
</tr>
<tr>
<td>Tajikistan 2002</td>
<td>National Nutritional Survey</td>
<td>—</td>
<td>30.9</td>
<td>4.9</td>
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<tr>
<td>Uzbekistan 1996</td>
<td>Demographic and Health Survey</td>
<td>—</td>
<td>31.3</td>
<td>11.6</td>
</tr>
</tbody>
</table>


1 Latest available survey data.
2 Rates are for children 0 to 35 months.
3 Rates are for children 6 to 59 months.

Note: Moldova not included.
A key Millennium Development Goal is to reduce child malnutrition by half by 2015. It is clear that doing so will require improving both material living standards and other dimensions of poverty.

**Education**

Education is another important dimension of well-being. Two of the Millennium Development Goals concern education: achieving universal primary education by 2015 and eliminating gender disparities in education at all levels. The CIS-7 countries began the transition with an enviable record on education, with near-universal literacy. School attendance was compulsory from ages 7 to 15, and there was an extensive kindergarten system as well as technical and vocational schools for postcompulsory education. However, there have been serious reversals over the past decade in several countries, and it is unlikely that the high literacy rates of the past will be sustained.

Economic decline may affect education outcomes in three ways. First, decreased access (and increased costs) may reduce enrollment. Parents who are unable to afford textbooks, uniforms, or even shoes may simply withdraw their children from school altogether. Second, even if enrolled, children may not actually attend school regularly, whether for the reasons given above or because they are needed as family labor. Finally, children may be enrolled and may be attending school, but may not be benefiting from the education. Teachers may be absent on a second job, there may be no textbooks, it may be too cold to concentrate, or the child may be anemic or malnourished and too lethargic to learn. There is very little evidence concerning learning outcomes, so this section focuses on trends in kindergarten, primary, and secondary school enrollment and attendance and on emerging gender disparities.

**School Enrollment**

A worrying trend is the decline in the proportion of children ages 3 to 6 enrolled in pre-primary school education (Table 6.10). Prior to independence, attendance at kindergarten was widespread. Since independence, rates have fallen dramatically. This drop is in part due to the closure of employer-provided kindergartens. However, enrollments have fallen by more than the drop in capacity, suggesting a fall in demand for kindergarten places as well as their supply. A survey in Tajikistan found that mothers increasingly prefer to take care of their children at home. Reasons given included lack of personnel at child-care facilities, concerns over food safety, and rising costs. Such trends are of concern given the role that kindergartens can play in raising household welfare, by freeing parents to participate in paid employment as well as by offering preschool education and nutritional and health interventions.

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51 Falkingham (2000b).
52 Klogman and others (1997).
53 Falkingham (2000c).
Primary education remains compulsory. But while enrollment rates in basic education generally have remained high, they have fallen in Armenia and Georgia. Data from the UNICEF TransMONEE (2002b) project indicate that only four of five children ages 7 to 15 are enrolled in school in Armenia. Furthermore, enrollment rates tell only part of the story, as there is also a growing problem of declining school attendance.

Postcompulsory education enrollments have dropped dramatically. The proportion of 15- to 18-year-olds attending general secondary schools has fallen more than 40 percent in Tajikistan and a third in Azerbaijan, the Kyrgyz Republic, and Georgia (see Table 6.10). In contrast, there has been significant growth in higher education in four of the countries, particularly in the Kyrgyz Republic, Moldova, and Azerbaijan. Virtually all the growth in higher education has come in the private sector with the proliferation of new private colleges, especially business studies, economics, and law.

School Attendance

Tight education budgets and capitation funding formulas provide an incentive to overstate enrollments in order to maintain teaching posts and schools. Thus, enrollment rates may overestimate the number of children attending school. Furthermore, attendance appears to be well below enrollment rates, making data on official enrollments a poor indicator of the number of children actually receiving educational services. The highest rate of school attendance (for the school year) reported by respondents to Uzbekistan’s 2000/01 Household Budget Survey was 82 percent, and average attendance rates for children ages 7 to 15 (for whom education is theoretically compulsory) were 79 percent for boys and 77 percent for girls (Figure 6.2). This rate is significantly lower than the 97 percent reported for Uzbekistan in official data (see Table 6.10) and indicates a serious erosion of the country’s human capital.

Both demand- and supply-side factors can influence attendance. For example, in Georgia, more than half of children who did not attend school for at least one day during the survey period cited the absence of a teacher, lack of heating, or excessive distance as the primary reason. Supply-side factors such as lack of textbooks and other materials were also cited in the poverty assessments for most countries.

However, there is evidence that absenteeism is more prevalent among the poor and that economic factors are an important determinant of school attendance. Traditionally, children from rural areas have been absent at the beginning and end of the school year to help with the harvest and planting. But there is evidence that withdrawing children from school to supplement household income is becoming more widespread. In Armenia, only 52 percent of poor rural households reported that their children attended school very regularly, compared with 68 percent of nonpoor households.

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54 World Bank (2002c).
### Table 6.10. Changes in School Enrollment Rates, CIS-7, 1989-2000
(Percentage of relevant age group)

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*Source: UNICEF (2002b).*

*1 1989.*
With rising costs, it is difficult to resist the conclusion of a recent United Nations Development Programme (UNDP) report that the education systems in the CIS-7 are beginning to reflect the increasing socioeconomic stratification in these societies. In Azerbaijan, half the university students come from the two richest quintiles. Qualitative social assessments find that students and their families increasingly are expected to pay bribes to ensure admission to elite schools, to receive good grades, and to secure entry into a university, effectively excluding students from poor families. In Georgia, the richest 20 percent of households spent an average of 22 times as much on educating children as the poorest 20 percent. Access to quality education is substantially confined to those who can afford private fees and private tuition.

**Gender and Education**

Gender equality in education was a key achievement of the Soviet era. Gender ratios of gross enrollment at different levels of education show that in primary school, the ratio of girls to boys is almost exactly one (Figure 6.3). In most countries, the ratio increases in secondary school, indicating that more girls than boys are enrolled. Beyond compulsory education, the ratio increases even more in most countries. The main exceptions are Armenia and Tajikistan, where the ratio falls. In Armenia, survey data indicate that boys are more likely than girls to drop out of postcompulsory education, suggesting caution in interpreting the ratio. In Tajikistan, however, if the current trend of falling enrollments and increasing

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56 Dethier (2002).
57 World Bank (2002c).
gender differentials remains unchecked, there is a risk of losing one of the main social achievements of the Soviet period. A new countrywide Cash Compensation Program of targeted social assistance to poor families to stimulate school attendance was introduced at the beginning of 2002.

**Policy Responses to Poverty**

Reducing poverty in the CIS-7 and achieving the Millennium Development Goals will require efforts to promote pro-poor growth and to protect and build human capabilities.

**Promoting Pro-Poor Economic Growth and Reducing Income Inequalities**

Achieving pro-poor growth must remain at the heart of efforts to alleviate poverty. However, it will be important simultaneously to address the economic, institutional, and political causes of poverty. Economic growth alone is not sufficient.

Two factors behind the growth of poverty over the past decade have been falling real wages and rising income inequality. Not only is inequality undesirable in its own right, but there is mounting evidence that it is bad for growth, undermines confidence in the government, fosters social exclusion, and impairs the functioning of democracy.

Where disparities in incomes are large, it will be difficult to increase the incomes of poor families substantially in the short to medium term without some reduction in income differentials. But rather than reducing inequality, government policies and actions often have had the reverse effect. A key route to reducing income inequality is the establishment of transparent and efficient product markets. But progress has been hampered by the slow pace of restructuring (or closing) many

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of the large nonviable state enterprises and by the capture of these and other state institutions by vested interests. No country in the CIS-7 has achieved a score of more than 2.0 on the European Bank for Reconstruction and Development’s index of enterprise reform (the index ranges from 1, low, to 4, high).

To promote pro-poor growth, the CIS-7 countries need to foster a business environment that is conducive to private sector development by improving governance and reducing the “bribe tax,” streamlining administration and reducing the “time tax,” strengthening credit markets, simplifying taxation and reducing incentives to engage in tax avoidance and evasion, and strengthening the legal framework.

**Protecting and Building Human Capabilities**

In addition to working to promote economic growth and reduce inequality, public action needs to protect and build capabilities so that the poor can take advantage of new income-generating opportunities. That means reversing the trend of rising differentials in health and education between the poor and the better-off.

There is an urgent need to invest in schools and primary health care facilities. But unless governance issues are also tackled, higher social spending may do little to enhance the human capital of the poor. Many countries need to strengthen public expenditure management systems to ensure that public funds are used for their intended purposes and to reduce the rent-seeking behavior of health and education professionals. It is essential to break the vicious cycle of bribes and corruption within the social sectors.

**References**


Inequality and Poverty in the CIS-7 Countries, 1989–2002 167


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Growth and Rural Poverty in the CIS-7 Countries: Case Studies of Georgia, the Kyrgyz Republic, and Moldova

Louise Cord, Ramon Lopez, Monika Huppi, and Oscar Melo*

Rural poverty is a major problem in the CIS-7 countries, exceeding urban poverty in four of the seven countries. The high rates of rural poverty are partially a historical phenomenon, but they also reflect the immense dislocation experienced by the rural sector following the breakup of the Soviet Union. Production and marketing structures, the incentive framework, social services, and farm and nonfarm employment opportunities were profoundly affected by the breakup of state and collective farms and the switch to a market economy.

Regional and country-focused poverty analyses have examined aggregate rural poverty trends but only rarely have examined their possible determinants, such as access to land and livestock assets and participation in agricultural product and factor markets. Similarly, analyses of rural development in the CIS-7 countries have focused on growth constraints and the overall content and pace of sectoral reforms but have paid less attention to the links between macro and rural policies and rural poverty outcomes.

This chapter seeks to improve the understanding of rural poverty in the CIS-7 countries and to highlight priority policy options to reduce it. It places rural poverty outcomes within the broader context of macro and sectoral performance and analyzes the determinants of rural poverty, as well as the characteristics that allow rural households to benefit from overall economic growth. It focuses on growth and rural poverty trends in three CIS countries—Georgia, the Kyrgyz Republic, and Moldova—whose economic, geographic, and political characteristics and poverty and growth outcomes are broadly representative of the CIS-7.

The chapter draws on macro and sectoral output data and panel household survey data for 1997/98 through 2000/01 for the three countries. It also draws on analysis of agricultural markets in the Kyrgyz Republic and Moldova and a brief

* The authors thank Vidhya Muthuram for research assistance, Peter Bocock for editorial support, and Esteban Hernandez for production assistance. They gratefully acknowledge preliminary comments from Daniela Gressani, Peter Lanjouw, and Laura Tuck and technical inputs from Michael Lokshin.

1 World Bank (1995), (1999a, b), (2000), and (2002a, b).
assessment of the business climate for rural entrepreneurs in Georgia. The analysis focuses on the monetary dimensions of poverty and does not address its nonincome aspects.

Four key messages emerge. First, the source of growth was an important determinant of its impact on rural poverty. In particular, agricultural growth was more associated with rural poverty reduction than was growth led by nonagricultural sectors. In Georgia, growth in the late 1990s was driven by a narrow set of service industries, while the agricultural and nonfarm sectors stagnated and rural poverty continued to rise. In the Kyrgyz Republic, growth was driven by the agricultural sector, and rural poverty fell significantly. In Moldova rural poverty rose through the late 1990s and began to decline only in 2001, the first year since the transition that the agricultural sector experienced growth.

Second, the benefits of growth were transmitted to the rural poor in different ways. In the Kyrgyz Republic, the benefits were transmitted through increases in labor, livestock, and land assets, as well as beneficial returns to market participation. In the Kyrgyz Republic, these assets and market participation were positively associated with higher household expenditures. In Georgia, by contrast, with the exception of livestock, these assets and market participation were not effective in channeling the benefits of growth to rural households. In Moldova, where there was no economic growth in the late 1990s, the levels of both household labor assets and market participation rates declined, and land assets, which increased, were not effectively linked to higher expenditures.

Third, the land reform programs of the late 1990s provided rural households with a basic safety net but were not sufficient to generate agricultural growth and reduce rural poverty. The association between land assets and household welfare was generally insignificant, except in the Kyrgyz Republic, where it was small but significant. The weak relationship reflects similar results for other transition economies and is not surprising given the relatively equal distribution of land across expenditure quintiles, the unequal marginal productivity of land across producers because the distribution was made by fiat, the low profitability of agriculture and low productivity of land (particularly in Georgia and Moldova), and the lack of information on land quality in the survey data.

Fourth, while all three countries implemented important macro and agricultural reforms that provided a basic framework for growth, the performance of agriculture was heavily constrained by initial conditions (structure of production in 1990, relative openness to trade) and exogenous forces (economic and climatic shocks, political stability). The macro policy framework was broadly similar across the three countries, as all three had achieved macroeconomic stability by the mid-1990s. There were more differences in structural and sectoral policies relevant to the rural sector, mainly related to the speed of land privatization and the content of public investments.

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Sectoral Performance and Progress of Reform Programs

Despite implementing fairly similar reform programs, with the notable exception of the pace and content of land reform, the three countries experienced different rural poverty and growth outcomes during the late 1990s. The Kyrgyz Republic experienced agriculture-led economic growth in the late 1990s, and rural poverty fell markedly, from 60.2 percent in 1998 to 46.6 percent in 2001. Georgia also experienced high economic growth, but led by a narrow set of services rather than by agriculture, which stagnated. Rural poverty continued to increase throughout the late 1990s, rising from 13.4 percent in 1997 to 20.9 percent in 2000. In Moldova, the economy, including the agricultural sector, continued to decline in the late 1990s, while rural poverty rose, peaking at 75.8 percent. Economic growth began to recover in 2000, the same year that rural poverty began to fall.

Growth Record and Sectoral Performance

Growth is a necessary condition for poverty reduction and a key determinant of per capita expenditures. But it is not a sufficient condition for poverty reduction. The pattern and quality of growth also affect the impact on poverty. While both Georgia and the Kyrgyz Republic experienced positive growth during this period, growth was driven by the agricultural sector in the Kyrgyz Republic and by services in Georgia. Poverty fell in the Kyrgyz Republic but not in Georgia.

Trends in Gross Domestic Product

Following the decline in output in all three countries in the early 1990s, gross domestic product (GDP) began to recover in Georgia and the Kyrgyz Republic in 1995 but continued to decline in Moldova until 2000. Between 1996 and 2000, the economies of the Kyrgyz Republic and Georgia posted moderate growth rates, averaging around 5.7 percent a year, while Moldova's economy continued to decline at an average rate of 2.5 percent a year before starting a modest recovery in 2000. Reflecting the dramatic decline in the early 1990s, GDP remained at just over 20 percent of its 1990 level in Georgia, compared with 70 percent for the Kyrgyz Republic and 40 percent for Moldova.

Agricultural Sector Performance

Agriculture's role in generating economic growth has varied in the three countries. In the Kyrgyz Republic, the economic recovery was led by agriculture. In Georgia, growth was driven primarily by a narrow set of services (transport, communications, and financial intermediation), while the industrial and agricultural sector lagged. In Moldova, the continued drop in GDP through most of the 1990s was driven by weak performance of the agricultural and industrial sectors, with industry performing worse than agriculture.
The Kyrgyz Republic is the only country of the three in which agricultural production has regained—in fact, surpassed—pretransition levels. In Georgia, the value of crop production essentially stagnated during 1996–2001 and in 2002 remained at about 60 percent of pretransition levels. The Moldovan agricultural sector continued to decline until 1999, stagnated in 2000, and then grew by 4 percent in 2001, still reaching only 30 percent of its 1990 level.

Why did agriculture in the Kyrgyz Republic outperform agriculture in Georgia and Moldova? The Kyrgyz Republic experienced an increase in both supply and demand, which did not happen in Georgia and Moldova. In addition, the value of agricultural output rose in the Kyrgyz Republic, reflecting an improved incentive framework and the country’s transition toward higher-value crops.

There appears to have been a shift in the supply curve for the Kyrgyz Republic, reflecting rising yields and investments in irrigation, along with a growing labor force. By 2000, yields for key crops were close to what they had been before transition. In contrast, yields in Georgia (apart from wheat and sunflowers) and Moldova continued to drop in the late 1990s, reflecting a severe reduction in the use of chemical inputs and associated soil depletion. A recovery to earlier yield levels was easier to achieve in the Kyrgyz Republic, whose yields had traditionally been below those of Georgia and Moldova.

In all three countries, the agricultural labor force increased. The share of the workforce in agriculture grew from 33 percent in 1990 to 52 percent in 1999 in the Kyrgyz Republic, from 25 percent to 57 percent in Georgia, and from 33 percent to 49 percent in Moldova. However, while value added per worker rose in the Kyrgyz Republic, at least until 1999, the increase in labor assets was offset by stagnation in labor productivity in Georgia and a decline in Moldova. Why the difference?

The Kyrgyz Republic began to invest in irrigation infrastructure in 1998, earlier than the other countries. These investments likely led to both higher yields and decreased vulnerability to climate shocks. Both Moldova and Georgia were hard hit by weather shocks. Moldova experienced floods, freezes, and recurrent droughts (1992, 1994, 1996, 2000), which disrupted production and restructuring efforts. Fruit orchards and vineyards, the bulk of Moldova’s agricultural exports, are irrigation dependent and are now more vulnerable to drought. Over the past five years Georgia also experienced two severe droughts, in 1998 and 2000.

Trends in the demand for agricultural products are more difficult to discern. Shifts in domestic and international demand, as well as the decline in the agribusiness sectors, affected the three countries differently. Per capita consumption of most food products had recovered, or nearly recovered, in Georgia and the Kyrgyz Republic by 1999, reaching 75 to 100 percent of 1990 levels. In

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4 There is some question as to whether official statistics present an overly optimistic picture of the extent of the recovery; see World Bank (2002d).
Moldova, per capita consumption of many food items (except potatoes and vegetables) in 1999 represented only about half their 1990 levels.

The absence of a vigorous and competitive agro-processing sector has constrained the demand for agricultural products in Georgia and Moldova and may constrain future growth in the Kyrgyz Republic. In Moldova and Georgia, the agro-processing sectors had traditionally been based on perennial and tree crops for export. In Georgia, agro-processing production had fallen to about 10 percent of its 1990 level by 1999, while in Moldova, agro-processing in 2000 was 10 percent or less of its 1990 level for meat and dairy products, less than 20 percent for fruit and vegetable products, and about half for most alcoholic beverages, with much of the reduction occurring during the second half of the 1990s. In the Kyrgyz Republic, some areas of food processing started to rebound during the second half of the 1990s, fuelled by growing domestic demand, but export-oriented agro-processing activities, such as wool and cotton textiles, continued to decline throughout the 1990s.6

External shocks, in particular the Russian financial crisis of 1998, have reduced demand for agricultural exports, especially for export-dependent Moldova, where the value of agricultural and agro-processed exports is about equivalent to agricultural GDP. By 2000, exports were less than half their 1997 level in Moldova. In the Kyrgyz Republic, the dollar value of agricultural and agribusiness exports dropped by 17 percent in 1998 and another 25 percent in 1999, and has continued to decline since then. In Georgia, by contrast, the effect of the Russian crisis may have been offset by the country's competitive exchange rate. Its agricultural exports were less affected by the crisis, falling 12 percent in 1998 and another 7 percent in 1999, but recovering fully in 2000 to a level more than two and a half times higher in value terms than in 1995.

Largely reflecting positive demand factors, the incentive framework for agriculture was more attractive in the Kyrgyz Republic than in the other two countries. Real food prices rose steadily throughout the late 1990s in the Kyrgyz Republic, while they remained constant in Moldova and declined in Georgia. The rise in food prices also led to faster growth in Kyrgyz value added for agriculture. Nevertheless, the profitability of agriculture was undermined by the declining ratio of agricultural producer prices to industrial producer prices between 1995 and 2000, suggesting that input prices and transport costs were increasing.

Also helping to raise the value added of agriculture in the Kyrgyz Republic was the shift in land use from the traditional low-value forage (to support the sheep and goat production encouraged by the Soviets) toward higher-value traditional food crops for domestic consumption (potatoes, wheat, vegetables). In contrast, in Georgia and Moldova land use shifted from high-value export crops (vegetables, orchards, vineyards) to staple food crops.

6 World Bank (2002d).
**Rural Policy Framework**

Sectoral reforms and the speed at which they were implemented did not differ substantially across the three countries, with the exception of land reform. While all three countries liberalized most agricultural prices and began reforming the agro-processing sector prior to 1995, the governments continued to intervene in agricultural markets and have not fully privatized the agribusinesses. Both the Kyrgyz Republic and Georgia initiated their land reform programs early but did not complete the reforms until the late 1990s. Moldova delayed introducing its land reform program until the late 1990s but then implemented it quickly and soon caught up with the other two countries.

**Incentive Framework and Agricultural Marketing**

All three countries liberalized agricultural prices and trade relatively early but continued to intervene in the markets sporadically. On the output side, Moldova and the Kyrgyz Republic did so more extensively than Georgia. Moldova repeatedly imposed ad hoc restrictions on exports of particular crops. The Kyrgyz Republic continues to be more interventionist in input markets than the other two countries, intervening in fertilizer and farm machinery markets. All three countries continue to place severe restrictions on the seed market. Overall, Georgia has the most liberalized marketing and trading regime.

The absence of well-functioning markets, particularly on the output side, continues to be a key constraint to sectoral growth, especially in Georgia and Moldova. Farmers are not effectively linked to domestic and external demand and thus experience difficulty selling their products. Producers in Georgia rely mainly on small informal traders, while those in Moldova sell through a combination of informal traders and inefficient, monopolistic agro-processors.

A recent analysis of marketing chains for wheat, fruit, and vegetables in the Kyrgyz Republic suggests that the markets operate reasonably efficiently, especially considering how briefly they have been functioning. Price differences in these markets largely reflect differences in time, space, and quality. Marketing margins are generally low. Risk is an important factor, primarily because of potential spoilage of fresh products and unpredicted variation in processing. Bribery is widespread but generally amounts to no more than 5 percent of total costs.\(^7\)

Although the practice has become less common since 2000, in the late 1990s the Kyrgyz Republic and Moldova began to resort to in-kind collection of taxes and social fund contributions, in turn forcing governments to pay wages and pensions in kind, particularly in rural areas, slowing market development. In-kind payments, valued above market prices, were a form of indirect subsidy to producers, while payments to pension beneficiaries, valued below market prices, were an implicit tax on the poor in rural areas. Prices tended to be set for the entire year without taking into account seasonal or regional variations. As a

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\(^7\) Stryker and Livinets (2002).
result, in-kind payments had limited price flexibility in the market, discouraging private storage and transportation.\textsuperscript{8}

\textbf{Land Reform}

The biggest contributor to differential outcomes for sectoral growth and rural poverty was most likely the different approaches to land reform and farm restructuring, particularly the pace of reform, and the nature of the legal framework for land rentals and sales. In Georgia and the Kyrgyz Republic, the broad legal framework for use rights was established in the early 1990s, and private ownership was authorized in 1996 in Georgia and 1998 in the Kyrgyz Republic. Georgia carried out a large-scale distribution of land use rights in the early 1990s, while the Kyrgyz Republic did not begin land distribution until after 1995. In both countries, some agricultural land remains in government ownership (generally at the local level) and is leased out to rural households. Moldova enacted the legal framework for both private ownership and land distribution in the late 1990s. In Georgia and the Kyrgyz Republic, the legal framework for land sales remains restricted, whereas sales are freely allowed in Moldova. All three countries allow some type of leasing, but there are some concerns about the transparency and equity of the arrangements.

Despite Moldova’s late start on land reform, it moved quickly to privatize and restructure more than 1,000 state and collective farms and provide land titles to more than 2.2 million people. Unlike Georgia and the Kyrgyz Republic, Moldova privatized all agricultural land, not just arable land and land under perennials. Restructuring included a program to free restructured farms of old debt while protecting productive assets. Land titling was completed by a program of direct income support payments to title beneficiaries, replacing a long tradition of subsidizing inputs. While most landholders initially opted to lease their land to the newly established corporate farms, by 2001 about half the privatized land was being farmed individually or by associations of peasant farmers.

The Kyrgyz land reform program began in the early 1990s, with most of the land distribution occurring between 1995 and 2000. Land was originally allocated to individual peasants through long-term leases, with private land ownership permitted by law as of mid-1998. By early 2002, about 70 percent of arable land previously held in state and collective farms had been transferred to peasant farmers. About half the arable land was cultivated by individual farmers, and a fifth was held individually but managed under a reformed collective or privatized structure. The remaining land was held by the community-based Land Distribution Fund (about 25 percent), with about 5 percent remaining in the hands of about 20 state seed and livestock-breeding farms. As of early 2001, the government had distributed about 1.06 million hectares as permanent land shares to 2.67 million people, and 510,551 families had received land certificate titles.

\textsuperscript{8} Stryker and Livinets (2002).
Georgia's land reform started in 1992 through the large-scale distribution of use rights to rural households. Legal recognition of private land ownership was delayed until early 1996. A land leasing program was introduced in 1996 for land that remained in government ownership. By 2000, 57 percent of arable land was in private ownership and 27 percent was under lease from the government. While Georgia's initial land distribution program was very inclusive, the leasing program has tended to increase inequalities in rural areas. Surveys have shown that the ability to lease land from state reserves significantly increases a household's land access and thus its income, but this possibility is open only to a small number of households (about 4 percent)—often those with good connections.9

The legal framework for the land market also differs among the three countries. In Moldova, both sales and rentals have been allowed since 1996 (Table 7.1). In Georgia, government-owned land can be leased, but it is not clear whether private land can be leased. The sale of land has been allowed since 1996 but is restricted. In the Kyrgyz Republic, sales have been allowed since 2001 with restrictions, and leasing is possible. However, anecdotal evidence from both the Kyrgyz Republic and Moldova suggests that the lessor has more bargaining power than the lessee and that rental contracts are not always equitable or transparent.

Agro-enterprise Reform
Although a large share of agro-processors were privatized in all three countries, several large-scale processors remain in state hands and continue to operate inefficiently. Even processors that were privatized generally were not disciplined, continuing to accumulate large arrears, avoiding serious restructuring, and perpetuating weak management practices. Some privatized enterprises still receive preferential treatment. For instance, in the Kyrgyz Republic, the government allows recently privatized tractor and chemical input companies to sell subsidized tractors and fertilizer at below-market prices.

Financial Sector Reform
While the Kyrgyz Republic and Moldova (and recently Georgia) have sought to reform their rural financial institutions with donor support, financial systems in all three countries remain shallow. The reformed rural lending schemes have proved successful, but they also have shown that developing effective and sustainable rural finance systems to serve small farmers will take time and will depend on strengthening the entire financial system in each country.

The Kyrgyz Agricultural Finance Corporation, established in 1997 with donor assistance, has about 30,000 beneficiaries, or about 4 percent of the rural population.10 In Moldova, the Rural Finance Corporation, established in 1997 with donor support, has provided financing to an expanding network of savings and credit associations serving small-scale farmers and rural entrepreneurs. As of

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9 World Bank (1999a).
10 World Bank (2002c).
2001, about 38,000 farmers and rural entrepreneurs—80 percent of them small private farmers—had benefited from short-term loans. In Georgia, the government is working with the World Bank and other donors to restructure Agrobank in order to strengthen the financial sector. A number of credit unions and other nonbank financial institutions have been established in recent years to help provide financing to small-scale farmers.

**Trends in Rural Poverty and Inequality**

Analysis of the evolution of rural household welfare and inequality in the three countries between 1997/98 and 2000/01 confirms that welfare improved more for households in the rural Kyrgyz Republic than for households in rural Georgia or Moldova. In the Kyrgyz Republic, rural poverty fell by 8 percent a year (Figure 7.1), and the severity of rural poverty also decreased. The effects of economic growth in Georgia were not experienced at the household level; rural poverty increased 16 percent a year (Figure 7.2), and the severity of rural poverty also grew. In Moldova, per capita expenditures in rural areas paralleled growth trends, declining through 1999 and then increasing in 2000 and 2001 (Figure 7.3). Rural poverty grew 25 percent a year until 1999 and then declined an average of 7.7 percent a year in 2000–01. The severity of poverty followed similar trends.

![Figure 7.1 Evolution of Rural and Urban Poverty Rates in the Kyrgyz Republic, 1998-2001](image)

*Source: World Bank (2002a).*
Country | Legal Framework for Private Land Ownership | Restrictions on Rental Market | Restrictions on Sales Market | Local Registries
---|---|---|---|---
Georgia | Legally possible since 1996 law. | The 1996 Law on the Leasing of Agricultural Lands permits the leasing of all remaining agricultural land under government control to private individuals or legal entities. The law provided a low-cost mechanism for farmers to acquire land use rights through leases priced at the same rate as the land tax. The result was a rapid transfer of land into private hands. Total agricultural output increased significantly on that land. Land is leased from the state-owned land reserve, managed by district authorities. | The sale and purchase of land is legally permitted, but is restricted by the State Land Management Department, which requires that all land in a local district be registered (to ensure that no individual has more than 1.25 hectares of land) before any land sales can occur. | Under development |
<table>
<thead>
<tr>
<th>Country</th>
<th>Legal Status Since</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Kyrgyz Republic</strong></td>
<td>Legally possible since 1998</td>
<td>Land can be rented to anyone, but land leased for longer than three years must be registered at the rayon GosRegister office. The registration process, essentially the same as for purchased land, is costly for poor farmers. Most therefore lease land for shorter periods. Because leasing arrangements tend to not be registered in writing, there are substantial opportunities for disagreements to emerge. Households renting out land are typically poor farmers, while households renting in land are better-off farmers. In 1998, a package of land laws became effective. The Law on Land introduced a moratorium on sales of agricultural land, owing to concerns that poorly functioning markets might result in concentration of ownership and other negative social consequences. This law limits the use of land for mortgages. The moratorium was lifted in 2001, but significant limitations on the ability to mortgage agricultural land remain. Also, only community residents can purchase land. Registration will be conducted at the local level using a network of 50 offices.</td>
</tr>
<tr>
<td><strong>Moldova</strong></td>
<td>Legally possible since 1996</td>
<td>Leasing is allowed, although legal procedures are not uniformly understood or applied. Households tend to lease land back to large restructured corporate farms. Land market transactions have been legally possible since the first land certificates were issued in 1996. Almost 2,000 sale and purchase transactions were completed as of 1999. Under development</td>
</tr>
</tbody>
</table>

Sources: World Bank (2002a, d), (2001), and Shuker (2000).
To what extent did growth or distributional changes drive these poverty trends? In the Kyrgyz Republic, the decline in rural poverty reflected mainly growth, as the expenditure Gini declined only slightly during this period. In Georgia, the rise in rural poverty reflected an increase in inequality (the Gini rose) as well as the narrow nature of economic growth, which was not transmitted to rural households. In Moldova, inequality decreased, suggesting that distributional changes tempered the impact of the recession on rural households.

Neither the poverty rate nor the Gini coefficient fully captures how per capita expenditures fared across the expenditure distribution or how the expenditures of the nonpoor evolved during the late 1990s. Generally, in Moldova the evolution of per capita expenditures in rural areas was pro-poor, while in Georgia the reverse was true. In the Kyrgyz Republic, expenditures grew slightly more for households in the upper middle class, but in general the pattern of growth was distributionally neutral.
On average, per capita expenditures of the total population declined by about 5 percent a year in Georgia and 10 percent in Moldova while rising about 3 percent a year in the Kyrgyz Republic. In Georgia the decline in per capita expenditures was experienced more sharply by rural households in the bottom two quintiles (which approximate the rural poverty rate), while in Moldova the per capita expenditures of the first six deciles (which approximate the Moldova rural poverty rate) experienced smaller income declines than the higher income deciles. In the Kyrgyz Republic, the average expenditure increases were roughly equal across expenditure deciles, but with the nonpoor (excluding the very wealthy in the top decile) experiencing slightly higher rates of growth than the poor, especially the extremely poor.

**Determinants of Changes in Household Expenditures**

Exploring the relationship between household characteristics and per capita expenditures using National Household Budget Survey data helps to explain the changes in the welfare of rural households. The variables proposed as key drivers of changes in rural household welfare were human, physical, financial, infrastructure, and market assets, as well as regional and time dummy variables.

Analysis of these variables highlights several positive factors acting on rural households in the Kyrgyz Republic that were weaker in Georgia or Moldova, as well as several negative external forces affecting household welfare that were stronger in Georgia and Moldova than in the Kyrgyz Republic (Table 7.2).

While the Kyrgyz Republic achieved a small percentage gain in rural welfare over the period, both Georgia and Moldova experienced substantial deteriorations. The largest adverse factor in all three countries was the difficult external environment, as reflected by the time dummy variables. The increase in household welfare in the Kyrgyz Republic reflects gains in livestock, land, and labor assets and market access. In Georgia, small gains in household welfare from increases in livestock and financial assets could not offset the negative impact of the external environment, the deterioration of infrastructure assets, and the increase in household size. Similarly, in Moldova the large increase in welfare resulting from the decline in average household size could not offset the negative forces of the drop in financial, infrastructure, and market assets and the deterioration of the external environment.

**Human Assets**

Human assets, notably education and household size, are strongly associated with household welfare in all three countries. As expected, household size has a large and inverse relationship with household welfare, while education has a positive

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11 The Household Budget Surveys were conducted in Moldova (except Transnistria) between 1997 and 2000, in Georgia between 1996 and 2000, and in the Kyrgyz Republic between 1998 and 2001. The Kyrgyz survey includes the estimated value of home-produced food items and purchases of food and nonfood items and services. Instead of including expenditures on durables directly, the value of durables the household owns was estimated. Expenditures on household business items were also excluded. Expenditures for consumer durables were excluded completely in Moldova and almost completely in Georgia. The value of home-produced goods is included.
Table 7.2. Decomposition of Rural Expenditure Changes for Georgia, Moldova, and the Kyrgyz Republic Based on Fixed Effects Estimates

(In percent)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Per capita expenditure on nondurable goods and services</td>
<td>-13.8</td>
<td>-32.79</td>
<td>2.56</td>
</tr>
<tr>
<td>Human Assets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household size (log)</td>
<td>-2.2</td>
<td>16.98</td>
<td>4.63</td>
</tr>
<tr>
<td>Number of household members ages 18–60 (log)</td>
<td>—</td>
<td>—</td>
<td>1.54</td>
</tr>
<tr>
<td>Mean years of education of household members 18 or older (log)</td>
<td>—</td>
<td>—</td>
<td>0.17</td>
</tr>
<tr>
<td>Household members' mean age (log)</td>
<td>—</td>
<td>—</td>
<td>2.42</td>
</tr>
<tr>
<td>Female head of household (dummy variable)</td>
<td>—</td>
<td>—</td>
<td>-0.3</td>
</tr>
<tr>
<td>Education of household members older than 17 (log)</td>
<td>0.3</td>
<td>0.13</td>
<td>—</td>
</tr>
<tr>
<td>Labor per capita (log)</td>
<td>—</td>
<td>-0.98</td>
<td>—</td>
</tr>
<tr>
<td>Age of head of household (log)</td>
<td>—</td>
<td>0.37</td>
<td>—</td>
</tr>
<tr>
<td>Physical Assets</td>
<td>5.9</td>
<td>—</td>
<td>14.11</td>
</tr>
<tr>
<td>Amount of land owned (log)</td>
<td>—</td>
<td>—</td>
<td>2.6</td>
</tr>
<tr>
<td>Ownership of automobile (dummy variable)</td>
<td>—</td>
<td>—</td>
<td>1.44</td>
</tr>
<tr>
<td>Ownership of moped (dummy variable)</td>
<td>—</td>
<td>—</td>
<td>0.55</td>
</tr>
<tr>
<td>Availability of pigs (log)</td>
<td>—</td>
<td>—</td>
<td>6.36</td>
</tr>
<tr>
<td>Availability of poultry (log)</td>
<td>—</td>
<td>—</td>
<td>3.17</td>
</tr>
<tr>
<td>Animal equivalents (log)</td>
<td>5.9</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Category</td>
<td>Value 1</td>
<td>Value 2</td>
<td>Value 3</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>---------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>Financial Assets</td>
<td>2.9</td>
<td>-4.44</td>
<td>..</td>
</tr>
<tr>
<td>Other transfers per capita (log)</td>
<td>2.9</td>
<td>0.51</td>
<td>..</td>
</tr>
<tr>
<td>Pension and retirement income per capita (log)</td>
<td>-</td>
<td>-4.95</td>
<td>..</td>
</tr>
<tr>
<td>Market Access</td>
<td></td>
<td>-0.94</td>
<td>0.66</td>
</tr>
<tr>
<td>For livestock sales</td>
<td>..</td>
<td>..</td>
<td>1.04</td>
</tr>
<tr>
<td>For labor market participation</td>
<td>..</td>
<td>..</td>
<td>-0.39</td>
</tr>
<tr>
<td>For agricultural sales (dummy variable)</td>
<td>..</td>
<td>-0.94</td>
<td>..</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>-10.7</td>
<td></td>
<td>-1.24</td>
</tr>
<tr>
<td>Access to gas at dwelling at end of 1998</td>
<td>..</td>
<td>..</td>
<td>-1.24</td>
</tr>
<tr>
<td>Phone</td>
<td>-10.7</td>
<td></td>
<td>-1.24</td>
</tr>
<tr>
<td>External Effects</td>
<td>-35.6</td>
<td>-38.32</td>
<td>-8.49</td>
</tr>
<tr>
<td>Unexplained Residual</td>
<td>26.3</td>
<td>-6.07</td>
<td>-7.11</td>
</tr>
</tbody>
</table>

Source: Lopez and Melo (2002).

Note: The change represents the logarithmic difference between the mean of each variable for the first and last four quarters multiplied by its corresponding regression coefficient; .. indicates that data were insignificant.
but smaller relationship. Household size declined in Moldova and initially in the
Kyrgyz Republic (through 2000) and rose in Georgia. The consistent decline in
rural household size was the single most important positive force acting on per
capita consumption in Moldova during this period (see Table 7.2). Education was
positively correlated with household welfare to the Kyrgyz Republic, particularly in
rural areas, where people over 17 years old have two to three years less schooling
than their counterparts in urban areas. In all three countries, the distribution of
schooling across expenditure quintiles is homogeneous among rural households.

In the Kyrgyz Republic and Moldova, labor market assets (number of household
members 18-60 years old) and age of the household head also had a positive rela­
tionship with household welfare. The positive coefficient for labor assets suggests
that these assets were constrained in these two countries and implies the existence
of unexploited income-generating activities (either on or off the farm). The
increase in labor assets in the Kyrgyz Republic and Georgia helped Kyrgyz but
not Georgian households. There was also an inverse relationship between the
gender of the household head and per capita expenditures in the Kyrgyz Republic.

**Physical Assets**

**Land**

Of the physical assets analyzed in the regressions, land contributed little to rural
household welfare, suggesting that land is not the most constrained asset for
rural households. Land assets had a small and weakly significant relationship
with per capita expenditures, depending on the country, the econometric model
(Verbeek and Nijman model, random effects model, or fixed effects model), and
the tenure system.

Only in the Kyrgyz Republic was the relationship between land and per capita
expenditures robust, but even there it accounted for less than 3 percent of the
change in household expenditures. In Georgia there was some evidence that
jointly used land (mainly pasture land) was positively related to per capita expen­
ditures, and in Moldova there was some evidence that land managed under col­
lective arrangements and privately owned land were positively correlated with
household welfare, but in neither case were the results robust across different
econometric specifications. While other studies have also noted a positive rela­
tionship between land assets and household expenditures in the Kyrgyz Republic,
the lack of a strong relationship between land assets and household welfare is
not unusual in transition and developing economies.12

The weak contribution of land to household welfare, particularly in Georgia
and Moldova, may reflect the relatively equal distribution of land across house­
holds, the weak incentive framework, the low productivity of land, or the failure
to account for the quality of the land (including access to irrigation). In this
connection, several specific features of land assets bear noting.

First, the relatively equal distribution of land across expenditure quintiles in the Kyrgyz Republic and Moldova and the pro-poor distribution in Georgia suggest that there is not a strong correlation between access to land assets and household welfare at an aggregate level. The ratio of land holdings (all tenure types) for the top-to-lowest expenditure quintile is 1.02 for Moldova and 0.94 for the Kyrgyz Republic, suggesting a highly equal distribution of land. In Georgia the ratio is 0.44, indicating that households in the bottom expenditure quintile have almost 60 percent more land than households in the top quintile. In Georgia and Moldova, rural households in the bottom expenditure quintile have improved their land access relative to households in the top quintile. In the Kyrgyz Republic, households in the top quintile have had a larger increase in land access than households in the bottom quintile, reflecting in part an increase in land rentals by wealthier households (Box 7.1).

Second, the weak relationship between land access and household expenditures is indicative of the low productivity of land. In Georgia and Moldova, low yields are caused at least in part by poor access to inputs and irrigation as well as by climatic shocks. In all three countries, private plots are extremely small (one hectare or smaller), which may mean that landholdings are too fragmented to allow for economies of scale in production. Support services (credit, market information, agricultural support services) are still underdeveloped, since they were a second priority after the land reform and privatization programs, particularly in Georgia and Moldova. Much land has been allocated by fiat, and restrictions on land exchanges and rentals were lifted only recently (and sometimes only partially). The land has not been allocated to maximize its marginal productivity. According

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**Box 7.1. Emerging Land Tenure Patterns**

**Most land is privately owned.** About 80 to 90 percent of arable land in Georgia, the Kyrgyz Republic, and Moldova is privately owned by rural households (2000/01). The share of leased land has increased in the past five years in Georgia and the Kyrgyz Republic (no data are available for Moldova). Land rentals rose from 3 percent of total land used by households in 1997 to 11 percent in 2000 in Georgia, and from 4 percent in 1998 to 11 percent in 2001 in the Kyrgyz Republic. The share of land managed jointly by farmers (with a former cooperative or a local community) has increased in Moldova and decreased in Georgia (slightly) and in the Kyrgyz Republic, where households using “jointly owned land” do not have clear title.

**Wealthier households tend to rent more land than poorer households.** While the distribution of land owned is equitable or even favors households in the bottom quintile, households in the top quintiles rent more land than households in the bottom quintile. In 2001, households in the lowest quintile in the Kyrgyz Republic rented 0.05 hectares, compared with 0.1 hectares for households in the top quintile, or 50 percent less, whereas in 1998 the amount of land rented was relatively equal.

*Source: Household Budget Surveys.*
to available data, only a small fraction of land is sold or rented across households, reflecting in part institutional restrictions on the land market (Box 7.1).

Third, agricultural profitability remains low, particularly in Georgia and Moldova, which undermines the return to land ownership. The low profitability of agriculture reflects the poor productivity of the sector, declining domestic food prices, reduced Russian demand for exports, and a deteriorating agricultural price index (agricultural prices compared to industrial prices).

Livestock Assets

Livestock assets are significantly and positively related to household welfare in Georgia and the Kyrgyz Republic (data are not available for Moldova). The importance of livestock in Georgia and, to a lesser extent, in the Kyrgyz Republic may reflect the ease with which these assets can be sold or liquidated and their greater immunity than that of land assets to institutional barriers to trade. In addition, livestock provides an easily accessible store of wealth, which is important during shocks and when financial markets are weak.

Ownership of livestock increased significantly for rural households in the Kyrgyz Republic and to a lesser extent in Georgia, supporting rising rural household welfare in both countries. In Georgia, livestock assets contributed about 6 percent to the rise in per capita expenditures of rural households between 1996 and 2000, while in the Kyrgyz Republic, they accounted for almost 10 percent (see Table 7.2). However, most of the gains accrued to wealthier households. In Georgia, the top expenditure quintile experienced the largest consumption gains from increased livestock assets (30 percent, compared with 14 percent for households in the bottom quintile). In the Kyrgyz Republic, households in the lowest quintile owned no pigs (the livestock asset most significantly linked to per capita expenditures) throughout the survey period, while households in the top quintile doubled the number of pigs they owned.

Financial Assets

Financial assets (asset income, remittances, and other transfers) were significantly correlated with household welfare in Georgia and Moldova, but the correlation was barely significant in the Kyrgyz Republic, suggesting that capital is not the most constrained asset in the Kyrgyz Republic. In addition to the sharp increase in income from financial assets (an average annual increase of 66 percent between 1998 and 2000), the apparent absence of a capital constraint among rural households may reflect the high share of households across all expenditure quintiles in the Kyrgyz Republic receiving formal and nonformal credit. On average, almost half of rural households received credit. Although the average loan size was small, it increased significantly with the per capita expenditure level of the household.¹³

¹³ World Bank (2002a).
Overall, income from social benefits and transfers declined during this period for rural households, particularly for households in the bottom expenditure quintiles in the Kyrgyz Republic and Georgia. In Moldova, where the poorest households were protected, their social transfers increased, which may partially explain why the recession in Moldova was pro-poor. The income from social transfers decreased 73 percent for households in the top quintile, while almost doubling for households in the bottom quintile. In Georgia, transfers declined for rural households in the bottom quintile, while increasing for the top quintile. Between 1997 and 2000, the value of social benefits fell by half for the bottom quintile but rose by almost 15 percent for the top quintile. In the Kyrgyz Republic, transfers declined for all quintiles, but the top quintile was somewhat protected. Between 1998 and 2000, transfers declined by 7 percent for the bottom quintile but by only 1 percent for the top quintile.

Social transfers were much higher for urban households than for rural households. The value of transfers received by urban households was double that received by rural households in Moldova and Georgia in 2000, and 20 percent greater in the Kyrgyz Republic in 2001. In Georgia, social benefits declined 15 percent for urban households but 30 percent for rural households. Similarly in the Kyrgyz Republic, social benefits fell 5 percent for urban households between 1998 and 2001 but 10 percent for rural households. In Moldova, however, rural households were more protected than urban households from reduced social benefits; benefits declined by only 2 percent for rural households compared with 20 percent for urban households.

**Access to Infrastructure**

Access to infrastructure assets tended to be positively associated with household consumption in Georgia and the Kyrgyz Republic and insignificant in Moldova. Rural households face much more limited access to infrastructure assets than their urban counterparts, and rural households in Moldova and the Kyrgyz Republic have less access to infrastructure than rural households in Georgia (Table 7.3). Except for telephones, access to infrastructure is fairly uniform across expenditure quintiles in all three countries.

Access to infrastructure is considered important for reducing the demand on labor for household chores and for improving health outcomes (in both cases raising the productivity of household members), as well for facilitating integration into the regional economy. Household access to some infrastructure assets increased over time (phones, hot water, and sewage for the Kyrgyz Republic; water and sewage for Georgia), while access decreased for other assets (gas in the Kyrgyz Republic; phones and gas in Georgia).
Table 7.3. Access to Utilities in 2000 in Georgia, Moldova, and the Kyrgyz Republic
(Percentage of population with access)

<table>
<thead>
<tr>
<th>Utility</th>
<th>Georgia Rural</th>
<th>Georgia Urban</th>
<th>Moldova Rural</th>
<th>Moldova Urban</th>
<th>Kyrgyz Republic Rural</th>
<th>Kyrgyz Republic Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phones</td>
<td>8</td>
<td>56.3</td>
<td>21</td>
<td>69</td>
<td>8</td>
<td>60</td>
</tr>
<tr>
<td>Water</td>
<td>78</td>
<td>93.7</td>
<td>3</td>
<td>86</td>
<td>1</td>
<td>59</td>
</tr>
<tr>
<td>Gas</td>
<td>56.2</td>
<td>55</td>
<td>5</td>
<td>68</td>
<td>29</td>
<td>71</td>
</tr>
<tr>
<td>Sewage</td>
<td>26.8</td>
<td>86.9</td>
<td>2</td>
<td>78</td>
<td>19</td>
<td>77</td>
</tr>
</tbody>
</table>

Source: Household Budget Surveys.

**Market Participation**

**Agricultural Markets**

Participation in agricultural markets was positively related to welfare in Moldova and the Kyrgyz Republic, but not in Georgia. This finding indicates that rural product markets in Georgia were not effective in transmitting overall economic growth to rural households, reflecting the unattractive incentive framework for agriculture and the presence of inefficient agricultural markets. Just over half of rural households participated in agricultural and livestock markets in Georgia and the Kyrgyz Republic, while only a quarter did in Moldova (Table 7.4). During the late 1990s, participation rates increased in Georgia and the Kyrgyz Republic but declined slightly in Moldova. Thus, despite the positive relationship between market access and household welfare in Moldova, market access had a negative impact on overall household welfare between 1997 and 2000 (see Tables 7.2 and 7.4). In general, participation in agricultural and livestock markets rises with the expenditure quintile.

**Input Markets**

In contrast to participation in agricultural product markets, participation in input markets was not significantly related to household welfare in the Kyrgyz Republic (the only country with data on input use). In general, purchasing inputs tend to be positively associated with household welfare. The lack of significance in the Kyrgyz Republic has several possible explanations—households that purchase inputs are not using them productively, the quality of purchased inputs is not

14 For Moldova and Georgia, but not for the Kyrgyz Republic, instrumental predicted variables were used to assess the impact of market access on household expenditures, reflecting the fact that participation rates do not necessarily indicate access rates since households with access may choose not to participate.
Table 7.4. Rural Market Participation Rates for Georgia, Moldova, and the Kyrgyz Republic, 1997-2001
(In percent)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Georgia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land</td>
<td>1</td>
<td>1.5</td>
<td>4.6</td>
<td>5.5</td>
<td>—</td>
</tr>
<tr>
<td>Labor</td>
<td>32</td>
<td>31.2</td>
<td>32</td>
<td>31.2</td>
<td>—</td>
</tr>
<tr>
<td>Agricultural sales</td>
<td>53.6</td>
<td>60.3</td>
<td>61.8</td>
<td>57</td>
<td>—</td>
</tr>
<tr>
<td>Moldova</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agricultural sales</td>
<td>26</td>
<td>24</td>
<td>22</td>
<td>23</td>
<td>—</td>
</tr>
<tr>
<td>Labor</td>
<td>51</td>
<td>49</td>
<td>46</td>
<td>40</td>
<td>—</td>
</tr>
<tr>
<td>Kyrgyz Republic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Livestock output</td>
<td>—</td>
<td>54</td>
<td>59</td>
<td>53</td>
<td>60</td>
</tr>
<tr>
<td>Livestock input</td>
<td>—</td>
<td>16</td>
<td>13</td>
<td>13</td>
<td>16</td>
</tr>
<tr>
<td>Fertilizer</td>
<td>—</td>
<td>17</td>
<td>16</td>
<td>21</td>
<td>25</td>
</tr>
<tr>
<td>Labor</td>
<td>—</td>
<td>49</td>
<td>44</td>
<td>45</td>
<td>47</td>
</tr>
<tr>
<td>Renting-in land</td>
<td>—</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>9</td>
</tr>
</tbody>
</table>

Source: Household Budget Surveys.

high, households are not accurately reporting their purchases, or the marginal revenue from the use of inputs is not consumed, but saved or invested. The percentage of households purchasing fertilizer increased by 50 percent during this period, but the overall share remained low at 25 percent in 2000 (see Table 7.4). The share of households purchasing livestock inputs remained constant over the period and was higher among households in the upper expenditure quintiles.

Labor Markets
Participation in labor markets was significant and positive for household welfare only in the Kyrgyz Republic. Labor market participation was relatively high in the Kyrgyz Republic, at 47 percent of rural households in 2001, compared with 31 percent in Georgia and 40 percent in Moldova in 2000 (see Table 7.4). This finding suggests that both labor assets and labor market participation were constrained in the Kyrgyz Republic and that overall productivity of rural labor was higher than in the other two countries. The lack of significance of labor market participation for Georgia and Moldova suggests low wages, declining hours of employment (participation was measured using a dummy variable), or high transaction costs. There are signs of significant regional and ethnic clustering in the Georgian labor market, suggesting that it is segmented and not necessarily efficient.
Determinants of Household Expenditure Growth Rates

In addition to knowing which household characteristics are associated with welfare gains (or losses), it is important to know which characteristics are likely to accelerate the rate at which those gains (or losses) can be expected to take place.

This section uses household panel data to explore how the variables already identified—human, physical, financial, infrastructure, and market assets, and exogenous factors—as well as subnational economic growth rates (based on the average oblast-wide growth of per adult equivalent monthly expenditures) affect the rate of growth of per capita expenditures. It evaluates which household characteristics accelerate the growth of per capita expenditures, as well as which household characteristics are important in linking growth to a faster rate of increase in per capita expenditures (interaction terms). The net impacts of both the simple coefficients and the coefficients for the interaction terms are considered in analyzing the specific contribution of household variables to the growth of per capita expenditures. The analysis was carried out only for Georgia (Table 7.5) and Moldova (Table 7.6).

The key variables related to an acceleration of per capita expenditures were access to agricultural and labor markets (Moldova only), infrastructure assets, and jointly held land (Georgia only). Not surprisingly given aggregate trends, subnational economic growth did not accelerate an improvement in household welfare in rural Georgia, as it did in rural Moldova.

Access to jointly held land was important in speeding up the rate of increase of per capita expenditures in Georgia, while land assets of any tenure type were not significant in Moldova. The importance of jointly held land in Georgia may reflect the importance of livestock assets in per capita expenditures and the use of this land for pasture. While households in the bottom quintile have fairly high levels of privately held land in rural Georgia, households in the top expenditure quintile have more than twice as much jointly held land as households in the bottom quintile (2000).

Access to markets and phone service helped to increase the rate of growth of rural per capita expenditures in both countries. In Moldova, access to agricultural product and labor markets was significant in channeling growth to accelerate improvements in rural household welfare, while in Georgia, only agricultural product markets were. The fact that labor market access did not accelerate growth underscores the fact that aggregate economic growth driven by the services sector (which is labor intensive) was not transmitted to rural households. Telephone service may also facilitate integration into the regional economy and improved access to market information.

Several factors depressed the rate of growth of per capita expenditures. In Georgia, rural households that were Georgian, Azeri, or Armenian tended to benefit less from growth than rural households of other nationalities. In Moldova, household size had a negative impact on the household’s ability to accelerate per capita income growth, while older and female-headed households were better
placed. Households receiving transfers (public and private) and asset income had lower rates of growth of per capita expenditures, suggesting that transfers were targeted to households with low rates of expenditure growth, which is likely to be the case for pensioners, who receive a relatively large share of transfers.

**Policy Implications and Recommendations**

This section synthesizes the main poverty, growth, and reform trends in each country and highlights key country-specific challenges and policy recommendations for the future.

**Policy Implications**

**Moldova**

In Moldova, to ensure that growth continues and is transmitted to all rural households, the challenges are to reverse the shrinkage of rural markets that took place during the 1990s, raise the productivity of land, and rejuvenate the traditionally strong agro-processing industry. Supporting the development of rural agricultural markets will require expanding access to rural infrastructure and improving the business climate. Raising the productivity of land will require increasing the provision of support services to rural households, increasing investments in irrigation, and supporting the development of rural land markets (both rental and sale). Encouraging the export-oriented agro-processing industry will require maintaining a competitive exchange rate, finalizing the reforms of state agro-processing industries, and creating a level playing field for new entrants.

**Georgia**

The key challenges for enhancing household welfare in Georgia are improving the productivity of land and labor; completing the restructuring of state farms; strengthening land market institutions and promoting more transparency in the management of community public lands; expanding demand for agricultural products by maintaining a competitive exchange rate and completing agro-enterprise reforms, including improving the business climate in rural areas; enhancing output, factor, and input market access and efficiency; increasing the ability of rural households to manage risk; and targeting safety nets to rural areas to reduce high and rising inequality in rural areas.

**The Kyrgyz Republic**

The key challenge for the Kyrgyz Republic will be to maintain agricultural growth, which has helped to reduce rural poverty substantially in recent years and to generate overall economic growth. Much of the favorable incentive framework that has supported agricultural growth reflects an increased domestic demand for food. Since this demand is not likely to continue to expand at the same rate, the country will need to develop export markets and agribusiness...
<table>
<thead>
<tr>
<th>Asset Type</th>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Human Assets</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Household size (log)</td>
<td>-0.021</td>
<td>0.041</td>
</tr>
<tr>
<td></td>
<td>Labor per capita (log)</td>
<td>-0.117</td>
<td>0.074</td>
</tr>
<tr>
<td></td>
<td>Education of older than 17 (log)</td>
<td>-0.077*</td>
<td>0.040</td>
</tr>
<tr>
<td></td>
<td>Female head of household (dummy variable)</td>
<td>0.083</td>
<td>0.032</td>
</tr>
<tr>
<td></td>
<td>Age of head of household (log)</td>
<td>0.054</td>
<td>0.070</td>
</tr>
<tr>
<td></td>
<td>Georgian head of household (dummy variable)</td>
<td>0.220***</td>
<td>0.078</td>
</tr>
<tr>
<td></td>
<td>Azeri head of household (dummy variable)</td>
<td>0.422***</td>
<td>0.185</td>
</tr>
<tr>
<td></td>
<td>Armenian head of household (dummy variable)</td>
<td>0.054</td>
<td>0.107</td>
</tr>
<tr>
<td></td>
<td>Farmer (dummy variable)</td>
<td>-0.087</td>
<td>0.043</td>
</tr>
<tr>
<td><strong>Physical Assets</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Land privately owned per capita (log)</td>
<td>0.014</td>
<td>0.076</td>
</tr>
<tr>
<td></td>
<td>Land jointly owned per capita (log)</td>
<td>-0.311*</td>
<td>0.183</td>
</tr>
<tr>
<td></td>
<td>Livestock (log)</td>
<td>0.021</td>
<td>0.049</td>
</tr>
<tr>
<td><strong>Financial Assets</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Assets income and remittances per capita (log)</td>
<td>-0.102***</td>
<td>0.030</td>
</tr>
<tr>
<td></td>
<td>All transfers per capita (log)</td>
<td>-0.047***</td>
<td>0.016</td>
</tr>
<tr>
<td><strong>Market Access</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Labor (dummy variable)</td>
<td>-0.052</td>
<td>0.042</td>
</tr>
<tr>
<td></td>
<td>Agricultural output (dummy variable)</td>
<td>0.069</td>
<td>0.060</td>
</tr>
<tr>
<td><strong>Infrastructure</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electricity</td>
<td>0.091</td>
<td>0.121</td>
</tr>
<tr>
<td></td>
<td>Phone</td>
<td>0.025</td>
<td>0.045</td>
</tr>
<tr>
<td></td>
<td>Water</td>
<td>-0.013</td>
<td>0.035</td>
</tr>
<tr>
<td>Human Assets</td>
<td>1.465</td>
<td>1.260</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>-------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>Household size (log)</td>
<td>-0.057</td>
<td>0.152</td>
<td></td>
</tr>
<tr>
<td>Labor per capita (log)</td>
<td>-0.282</td>
<td>0.269</td>
<td></td>
</tr>
<tr>
<td>Education of older than 17 (log)</td>
<td>0.053</td>
<td>0.144</td>
<td></td>
</tr>
<tr>
<td>Female head of household (dummy variable)</td>
<td>-0.054</td>
<td>0.121</td>
<td></td>
</tr>
<tr>
<td>Age of head of household (log)</td>
<td>0.182</td>
<td>0.247</td>
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</tr>
<tr>
<td>Georgian head of household (dummy variable)</td>
<td>-0.520***</td>
<td>0.243</td>
<td></td>
</tr>
<tr>
<td>Azeri head of household (dummy variable)</td>
<td>-1.195***</td>
<td>0.348</td>
<td></td>
</tr>
<tr>
<td>Armenian head of household (dummy variable)</td>
<td>-1.052***</td>
<td>0.308</td>
<td></td>
</tr>
<tr>
<td>Farmer (dummy variable)</td>
<td>0.181</td>
<td>0.153</td>
<td></td>
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<table>
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<tr>
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<th>2.759***</th>
<th>1.025</th>
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<td>Land privately owned per capita (log)</td>
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<td>0.263</td>
</tr>
<tr>
<td>Land jointly owned per capita (log)</td>
<td>2.759***</td>
<td>1.025</td>
</tr>
<tr>
<td>Livestock (log)</td>
<td>-0.232</td>
<td>0.171</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Market Access</th>
<th>0.417**</th>
<th>0.207</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor (dummy variable)</td>
<td>-0.121</td>
<td>0.143</td>
</tr>
<tr>
<td>Agricultural output (dummy variable)</td>
<td>0.417**</td>
<td>0.207</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Infrastructure</th>
<th>-1.201**</th>
<th>0.495</th>
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<td>Electricity</td>
<td>-1.201**</td>
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<td>Phone</td>
<td>-0.034</td>
<td>0.143</td>
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<tr>
<td>Water</td>
<td>0.265**</td>
<td>0.134</td>
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<table>
<thead>
<tr>
<th>External Effects</th>
<th>0.265**</th>
<th>0.134</th>
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<tr>
<td>14 quarter and 8 regional dummies</td>
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<td>0.134</td>
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</table>

| Constant | -0.501 | 0.348 |

**Note:** Seemingly unrelated regression approach. Monthly per capita expenditure is log monthly expenditure per adult equivalent; * significant at 10%; ** significant at 5%; *** significant at 1%.

A dummy variable for each quarter and region was included in the regression but is not shown.
Table 7.6. Regression on Annual Growth of Monthly Per Capita Expenditure on Nondurable Goods and Services in Rural Moldova, 1997-2000

<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>Standard Error</th>
</tr>
</thead>
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<tr>
<td><strong>Human Assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household size (log)</td>
<td>0.203***</td>
<td>0.033</td>
</tr>
<tr>
<td>Labor per capita (log)</td>
<td>0.071</td>
<td>0.050</td>
</tr>
<tr>
<td>Education of older than 17 (log)</td>
<td>-0.033</td>
<td>0.028</td>
</tr>
<tr>
<td>Female head of household (dummy variable)</td>
<td>0.049**</td>
<td>0.022</td>
</tr>
<tr>
<td>Age of head of household (log)</td>
<td>0.158***</td>
<td>0.044</td>
</tr>
<tr>
<td>Farmer in household (dummy variable)</td>
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<td>0.180</td>
</tr>
<tr>
<td><strong>Physical Assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land privately owned per capita (log)</td>
<td>0.005</td>
<td>0.089</td>
</tr>
<tr>
<td>Land jointly owned per capita (log)</td>
<td>0.102</td>
<td>0.110</td>
</tr>
<tr>
<td><strong>Financial Assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other current transfers per capita (log)</td>
<td>-0.078***</td>
<td>0.012</td>
</tr>
<tr>
<td>Pension and retirement income per capita (log)</td>
<td>-0.055***</td>
<td>0.011</td>
</tr>
<tr>
<td><strong>Market Access</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agricultural output market * Farmer (dummy variable)</td>
<td>-0.048</td>
<td>0.044</td>
</tr>
<tr>
<td>Labor market (dummy variable)</td>
<td>-0.011</td>
<td>0.032</td>
</tr>
<tr>
<td><strong>Infrastructure</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electricity</td>
<td>-0.166*</td>
<td>0.099</td>
</tr>
<tr>
<td>Water</td>
<td>0.007</td>
<td>0.046</td>
</tr>
<tr>
<td>Phone</td>
<td>0.059</td>
<td>0.027</td>
</tr>
<tr>
<td><strong>Regional growth of expenditure</strong></td>
<td>2.245**</td>
<td>0.968</td>
</tr>
<tr>
<td><strong>Interactions</strong></td>
<td><strong>Human Assets</strong></td>
<td><strong>Physical Assets</strong></td>
</tr>
<tr>
<td>------------------</td>
<td>------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td></td>
<td>Household size (log)</td>
<td>-0.456*** 0.108</td>
</tr>
<tr>
<td></td>
<td>Labor per capita (log)</td>
<td>0.188 0.177</td>
</tr>
<tr>
<td></td>
<td>Education of older than 17 (log)</td>
<td>-0.016 0.097</td>
</tr>
<tr>
<td></td>
<td>Female head of household (dummy variable)</td>
<td>0.071 0.077</td>
</tr>
<tr>
<td></td>
<td>Age of head of household (log)</td>
<td>0.150 0.140</td>
</tr>
<tr>
<td></td>
<td>Farmer in household (dummy variable)</td>
<td>-1.633*** 0.630</td>
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<tr>
<td></td>
<td>Land privately owned per capita (log)</td>
<td>0.041 0.298</td>
</tr>
<tr>
<td></td>
<td>Land jointly owned per capita (log)</td>
<td>-0.266 0.412</td>
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<td></td>
<td>Agricultural output market * Farmer (dummy variable)</td>
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<td>Labor market (dummy variable)</td>
<td>0.198* 0.104</td>
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<td>-0.224 0.309</td>
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<td></td>
<td>Water</td>
<td>0.085 0.141</td>
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<tr>
<td></td>
<td>Phone</td>
<td>0.193** 0.084</td>
</tr>
<tr>
<td></td>
<td>1998 dummy variable</td>
<td>0.056** 0.025</td>
</tr>
<tr>
<td></td>
<td>1999 dummy variable</td>
<td>0.154*** 0.027</td>
</tr>
<tr>
<td></td>
<td>8 monthly and 43 territory dummy variables</td>
<td></td>
</tr>
<tr>
<td><strong>Constant</strong></td>
<td></td>
<td>-0.449 0.291</td>
</tr>
<tr>
<td><strong>Number of observations</strong></td>
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</tr>
<tr>
<td><strong>R squared</strong></td>
<td>23.95</td>
<td></td>
</tr>
</tbody>
</table>

*Source: López and Melo (2002).*

*Note: Seemingly unrelated regression approach. Monthly per capita expenditure is log monthly expenditure per adult equivalent; * significant at 10%; ** significant at 5%; *** significant at 1%.*

1 A dummy variable for each month was included in the regression but is not shown.
opportunities. Completing agribusiness reforms, ensuring a level playing field for new entrants, and improving the rural business climate should be top priorities. Maintaining a competitive exchange rate will also be important to promote agricultural exports. To support market development and further increases in land and labor productivity in rural areas, the government will need to continue developing the institutional frameworks for land markets and water management, reassess its policy on the distribution of fertilizer and tractors, continue investing in irrigation, and improve access to social services and infrastructure in rural areas.

As land and labor markets become more efficient and deeper, some rural households may be left behind. It will be important to have targeted safety net programs in place to help this group—which may imply decreasing the value of broad-based social transfers on fiscal grounds.

**Recommendations**

This section makes some recommendations on land policy, market development, and social sector policy and on priorities for data collection and further analysis.

**Macro Policy**

A necessary condition for growth and poverty reduction is continued macroeconomic stability. Maintaining a competitive exchange rate is an important component of macro policy and is also important for agricultural growth and rural poverty reduction. It should be a key policy objective. Macroeconomic stability is important for deepening the financial sector and lowering the cost of borrowing, which is important for rural producers. Another key aspect of macroeconomic stability is to recognize and work within fiscal constraints. To ensure that expenditures on agriculture and in rural areas are efficient, governments should carry out detailed public expenditure reviews. They should also examine the fiscal responsibilities and revenue sources of local communities, which often play a key role in infrastructure maintenance and soil conservation.

**Land**

The finding that land holding is only weakly correlated with household welfare does not mean that land reform programs have been ineffective. Rather, it means that they have been incomplete and that complementary public goods are required to ensure that privately held land assets achieve optimum levels of productivity.

The key policy challenge will be to support the development of land rental markets to facilitate a more efficient distribution of land and to address problems of land fragmentation. Many governments are hesitant to liberalize land markets, given concerns over distress sales and urban migration. It is not necessary to liberalize land sales immediately, since an efficient and transparent rental market is sufficient to lead to a more efficient use of land. Moreover, many of the institutions required for effective land rentals—clear titles, easily accessible registries,
standardized leasing contracts, market price information—are also important for effective land sales markets. Governments may want to support qualitative studies to deepen their understanding of rural households’ perceptions of land leasing and sales markets.

In all three countries, an important share of agricultural land remains under government ownership at the national or community level. When land is managed locally, as in the Kyrgyz Republic, rental fees provide important revenues to rural community governments. For Georgia and the Kyrgyz Republic, rented land—often public land—was not significantly correlated with household welfare. In Georgia, access to this public land helped households benefit from regional growth. Access to public land was higher for wealthier households than for poorer households.

The findings of this study lead to no conclusions about whether state-owned land should be privatized. However, governments should disseminate information on who accesses public lands and under what conditions and should promote the use of open registries and standardized leasing contracts for publicly rented lands. In addition, governments should explore the use of multiyear or even long-term leases for this land to ensure adequate incentives for proper land management. In the long run, it is not likely to be efficient for large amounts of arable land to remain in government ownership, but governments may wish to delay privatizing the land until local communities develop alternative sources of revenue and rural financial and land markets deepen, which would allow rural households broader access to this land.

About 15 percent of arable land in the Kyrgyz Republic and 40 percent in Georgia and Moldova is cultivated under some collective structure, generally either a restructured and privatized state farm or cooperative or some form of producers’ association. Often, former state farm managers are in charge of these collective structures, renting in land that has been distributed to rural households. While these collective farms may be more successful in procuring inputs and accessing markets, it is important that leasing arrangements maximize land productivity and also respect the interests of lessors, who tend to be the elderly or others incapable of farming their land. Again, governments should monitor and disseminate information on the leasing arrangements and, where applicable, the profit-sharing mechanisms of these entities, to ensure that the land is well managed and that the lessors receive fair lease payments.

In the past five years, the share of land that is farmed privately has increased, and it will be important to provide small farmers with support services and microfinance to maximize productivity. As land holdings become more concentrated and agriculture becomes more commercially focused, many support services will be provided by the private sector and producers themselves. Thus, it will be important not to set up large structures with high fixed costs, but instead to focus on flexible services that can evolve and eventually be disbanded as the needs of small and medium-sized producers change and their ability to access knowledge and support from the private sector expands.
Agriculture Product and Input Markets
The analysis underscores the importance of agricultural markets in transmitting growth and supporting rural poverty reduction. To facilitate their development, it is recommended that governments take the following steps:

- Phase out in-kind payments, which typically undermine incentives to develop a market economy, favor certain specific marketing chains (often government owned or previously government owned), and raise transaction costs for producers, consumers, and the government.

- Evaluate the possible gains from input market interventions against the drawbacks (subsidized input distribution suppresses the development of private importers and retail chains).

- Reassess state involvement in output processing and marketing enterprises, which are still common for agro-processed crops and may not offer competitive prices and services to the small farmers who often grow these crops.

- Develop public goods that support access to markets—roads, telephones, transport services, and market information systems.

- Evaluate the extent to which fiscal incentives suppress the development of larger-scale traders (for example, by raising the minimum business threshold required to pay the value-added tax).

- Analyze formal and informal labor markets to understand key factors constraining the participation of poor rural households. This step is particularly relevant for Georgia, where the labor market was unable to transmit the growth in the services sector to rural areas.

Social Sector Policy
Except in Moldova, social sector policy favors high-expenditure quintiles over low ones. Governments should assess targeting strategies for their social policies to ensure that they are directed toward the intended and most vulnerable groups.

Education is significantly correlated with welfare (in the Kyrgyz Republic, the relationship between education and household expenditures is stronger in rural than in urban areas), but access is lower in rural areas than in urban areas. Anecdotal evidence suggests both that households in rural areas have to pay more for education than their urban counterparts and that the quality of education is worse in rural areas. To better understand issues related to access and quality of education in rural areas, governments may wish to evaluate the spatial distribution of education services and expenditures.

Data Collection and Analysis
Household surveys provide critical information for examining the evolution of poverty and inequality. But in many countries, the surveys do not include
variables that are important for rural poverty. Surveys should gather information on the following variables:

- land quality (amount of land tax paid, irrigation fees, access to water for irrigation);
- ownership of livestock and vehicle assets, which are important sources of rural welfare;
- spending on social services (since they are free in many transition countries, this variable is not generally included in the surveys, but as the practice of informal fee paying has increased, this information should be collected);
- purchases of specific inputs, to enable more accurate calculation of net farm income and better tracking of input market development; and
- access to road infrastructure, an important determinant of market access.

References


Several key political obstacles to economic reform have been identified in what has become a burgeoning literature on the political economy of reform. The overriding focus of this literature is on how political leaders can implement and sustain economic reforms in the face of formidable opposition from those who will lose the most from these reforms initially—usually the population at large and strong sectoral and organized interest groups. The recommended remedies are aimed at reducing or eliminating popular opposition to reforms, often by sequencing reforms to identify winners and compensate losers or by building coalitions of winners (Table 8.1).

In Uzbekistan, the Kyrgyz Republic, and Tajikistan, however, the greatest political obstacles to reform come from above rather than below, from vested interests within the government itself—primarily central, regional, and local elites “inherited” from the Soviet era. These elites resist reform because they fear the loss of their own economic and political power. The bulk of the population in these three countries is employed in agriculture and stands to gain the most from further reform. Yet central ministries, regional governments, and collective farm chairmen resist market-based initiatives that would end their control over crop production and distribution. The local farmers that stand to gain from reform have little political opportunity to express their interests.

Despite external shocks that have produced social and economic crises, eliminating these vested interests is highly unlikely given the well-entrenched authoritarian regimes and patronage systems that support the status quo. In most cases, crises have instead encouraged governments across Central Asia to strengthen patronage networks that obstruct reform. In this context, cultivating the interests of groups that are motivated by market incentives seems to be the most viable strategy. This requires that the international donor community work together to target farmers, small and medium-sized enterprises, and regional and local officials in their reform efforts.
Sustainability, however, would also require co-opting vested interests, through greater fiscal and administrative decentralization. While experience has shown some clear advantages to decentralization, the case for decentralizing authority is not unambiguous—particularly in postcommunist states. First, the infrastructure to ensure effective allocation of resources (or even the tracking of expenditures) at the local and regional level is not yet in place. The international community can bolster the accountability of regional and local leaders by continuing to support the development of an independent judiciary and more effective audit

<table>
<thead>
<tr>
<th>Leadership</th>
<th>Common Remedies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of willpower, fear of backlash at the polls</td>
<td>Insulate reformers from the masses</td>
</tr>
<tr>
<td>Lack of technical capacity</td>
<td>Apply international pressure through contingent loans or requirements for joining trade organizations</td>
</tr>
<tr>
<td>Lack of visionary leaders</td>
<td>Wait for an economic crisis</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Institutional</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Democracy means a lag in benefits, backlash at polls</td>
<td>Insulate reformers (and the reform process) from the masses</td>
</tr>
<tr>
<td>Multiple veto players make enacting (unpopular) reforms more difficult</td>
<td>Reduce number of veto players (for example, by establishing a strong executive)</td>
</tr>
<tr>
<td>Electoral cycles increase the danger of policy reversal</td>
<td>Use windows of opportunity to push through reforms as quickly as possible, as after a crisis</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Uncertainty (individual and aggregate)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Status quo bias</td>
<td>Aggregate: Sequence reforms (for example, development of private sector precedes reform of the state sector)</td>
</tr>
<tr>
<td>Increased risk for decisionmakers</td>
<td>Individual: Use “big bang” or shock therapy to overcome status quo bias or sequence reforms to identify winners and losers</td>
</tr>
<tr>
<td>Increased opposition to reform from losers and winners because of individual uncertainty</td>
<td></td>
</tr>
</tbody>
</table>

(continued)

2 Weingast (1995); Rodden and Rose-Ackerman (1997); Jones Luong and Way (2001).
Table 8.1. Political Obstacles to Economic Reform and Common Remedies (concluded)

<table>
<thead>
<tr>
<th>Political Obstacles</th>
<th>Common Remedies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Losing</strong></td>
<td><strong>Winners</strong></td>
</tr>
<tr>
<td>Vested interests in the status quo (sectoral interests, importers, labor unions)</td>
<td>Use &quot;big bang&quot; or shock therapy</td>
</tr>
<tr>
<td>Resistance spurred by aggregate uncertainty</td>
<td>Compensate through transfers and make a credible commitment to maintaining them among the reform</td>
</tr>
<tr>
<td>Danger of policy reversal</td>
<td>Sequence reforms or apply gradually</td>
</tr>
<tr>
<td></td>
<td>Wait for a crisis to build popular support for reform</td>
</tr>
<tr>
<td><strong>Winners</strong></td>
<td><strong>Winners</strong></td>
</tr>
<tr>
<td>Resistance spurred by individual uncertainty</td>
<td>Identify and build coalitions with the winners</td>
</tr>
<tr>
<td>Interests are dispersed or unorganized</td>
<td></td>
</tr>
</tbody>
</table>


processes and budgetary control. Ensuring greater accountability also requires political decentralization. Second, greater fiscal decentralization is likely to be strongly opposed by leaders in the central government, who would prefer to maintain a unified budgetary system in which they collect and redistribute revenue to the regions.

Finally, decentralization requires a strong central government with the administrative and legal capacity to assure economic actors that it can enforce contracts and property rights and regulate interregional economic activity. Decentralization—especially in Tajikistan and the Kyrgyz Republic, where the central government is relatively weak—may undermine the goals of decentralized authority and risk greater instability. These countries must first strengthen the central government and support the development of a productive relationship between the regional and local governments and the private sector. Local governments, small firms, and the nongovernmental organization (NGO) community are realizing increasingly that they have a mutual interest in promoting a climate conducive to private sector development. The international donor community can reinforce this trend by providing public administration training and facilitating productive dialogue and linkages between local officials and the private sector.

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3 Way (2000); Jones Luong (2003); Montinola, Qian, and Weingast (1996)
Another potential strategy is to create new economic interests through large-scale privatization. Even if privatization is conducted initially in a nontransparent fashion, as in Russia, it should eventually generate interest in strengthening the legal and regulatory environment for businesses. But how privatization is carried out has a huge effect on the economic results. Countries that performed best privatized to "individual investors or concentrated groups of strategic investors through open, fair, and transparent methods."4 To diffuse owners who lack capital and managerial experience, privatization still seems problematic (voucher privatization).5 The Kyrgyz Republic, which opted for voucher privatization, has had a poor record on restructuring state enterprises, made worse by the weak central state capacity and vested interests in the status quo at the local and regional levels. In addition, exchange rate policy in Uzbekistan and the international reputation for official corruption in the Kyrgyz Republic and Tajikistan are formidable obstacles to attracting strategic investors. Finally, privatization should not be viewed as a substitute for promoting new businesses or for focusing reform on the agricultural sector, which employs the majority of the population.

This leaves empowering potential winners of reform at the local and regional levels as the most viable strategy for overcoming political obstacles to economic reform, a strategy likely to produce results only over the medium to long term. In patronage-based societies, the empirical evidence suggests that significant political and economic liberalization does not occur without strong pressure from below.6 Thus, such a strategy requires a long-term commitment.

This strategy can accompany efforts aimed at encouraging the central government to adopt and implement reform, which alone are unlikely to be successful. In none of the CIS-7 countries can the central government implement reform single-handedly because vested interests are strongly entrenched and reform often faces resistance from below. Moreover, reforms achieved by empowering local and regional winners are also more likely to be sustainable over the long term because they involve building broad coalitions in support of economic reform.

Although the Kyrgyz Republic, Tajikistan, and Uzbekistan have similar political obstacles to economic reform, there are important differences in commitment to economic reform and in the problems they face in adopting and implementing reform. The Kyrgyz Republic has the best record on economic reform, while Uzbekistan has the greatest coercive and infrastructural capacity to implement economic reform. The Kyrgyz Republic and Tajikistan both face higher levels of debt and official corruption than Uzbekistan. Rough indicators of progress in adopting market reforms, based on European Bank for Reconstruction and Development (EBRD) assessments, show modest improvement for the Kyrgyz Republic and Tajikistan (the significant progress Tajikistan has made since 1999 is not reflected in these scores) and a decline for Uzbekistan (Table 8.2).

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5 World Bank (2002b).
6 Bratton and van de Walle (1994).
Table 8.2. Indicators of Progress Toward Market Reforms for Selected Transition Economies of Europe and Central Asia

<table>
<thead>
<tr>
<th>Country</th>
<th>1995</th>
<th>1999</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kazakhstan</td>
<td>2.1</td>
<td>2.7</td>
</tr>
<tr>
<td>Kyrgyz Republic</td>
<td>2.9</td>
<td>2.8</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>2.6</td>
<td>2.5</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>1.6</td>
<td>2.0</td>
</tr>
<tr>
<td>Turkmenistan</td>
<td>1.1</td>
<td>1.4</td>
</tr>
<tr>
<td>Ukraine</td>
<td>2.2</td>
<td>2.4</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>2.4</td>
<td>2.1</td>
</tr>
</tbody>
</table>

Note: Scores range from 1 to 4, based on a simple average of eight indicators; 1 = no market reforms and 4 = conditions equal to a developed market economy.

Obstacles to Reform in Uzbekistan

The Uzbekistan government has chosen a path of gradual economic reform through the centralized accumulation and distribution of resources—including access to scarce foreign exchange and production inputs—in order to maintain state control over the production, pricing, and trade of key commodities and to finance an import-substitution strategy to develop selected industries.7 These policies have strengthened groups with vested interests, including government officials, who benefit from their privileged access to scarce economic resources; state-designated importers, who are the net winners in the multiple exchange rate system in existence since late 1996; and industries included in the government’s public investment program that receive special tax breaks and access to subsidized credit and production inputs.

There are three primary obstacles to economic reform in Uzbekistan:

- vested interests in the status quo and a political system that disproportionately advantages these interests;
- ingrained government attitudes on the prescribed social and economic role of state and nonstate actors; and

7 This section draws on informal discussions with staff in the World Bank’s Tashkent office; and interviews with local scholars and researchers, officials, lawyers and business consultants, farmers, entrepreneurs, leaders of small business and farmers associations, and representatives of international nongovernmental organizations in Andijon, Kokand, Ferghana, and Tashkent.

Political Obstacles to Economic Reform
entrepreneurs' limited access to information on relevant laws and regulations and limited experience using the legal system.

**Vested Interests and Status Quo Bias**

Since independence, Uzbekistan's economic development strategy has increasingly relied on a system of implicit and explicit taxes and subsidies and centralized control over the production, pricing, and export of key commodities (cotton, grain, gold, and energy) that are linked through foreign exchange controls. Agriculture and energy, as well as exporters more broadly, are taxed to subsidize the development of selected domestic industries, such as manufacturing, telecommunications, mineral extraction, chemicals, textiles, and food processing. While this strategy is clearly failing to produce the desired effects, it has, nonetheless, persisted largely for political reasons. The willingness to support an import-substitution strategy through a growing deficit and foreign borrowing has been linked directly to severe economic crises in other developing countries.  

**Foreign Exchange Regime**

Tight control of foreign exchange was reintroduced in September 1996, after a sharp drop in cotton prices and declining foreign currency reserves called into question the government's brief experiment with currency and trade liberalization in 1995-96. The government has set high exchange rates and strictly regulated both the supply and demand of foreign currency at these rates. There are essentially three exchange rates that operate in Uzbekistan: the auction rate, the commercial rate (both set by the central government), and the black market rate. To maintain supply, the government requires that exporters surrender some portion of their foreign currency earnings—from 50 percent to 100 percent for those exporting state-procured commodities. To control demand, the government limits access. Foreign exchange at the auction rate is available only to a restricted list of importers—primarily those importing capital goods—to support the development of domestic industries. Commercial banks, exchange bureaus, and a select group of licensed traders are given access to foreign exchange at the commercial bank rate, which before the April 2002 devaluation was approximately 12 percent higher than the auction rate.

The most direct beneficiaries of this foreign exchange regime are state-designated importers, who have subsidized access to foreign exchange. The central government also benefits by exploiting the difference between multiple exchange rates to service foreign debt. So do government officials in the central ministries and state customs agencies, who can use their power to issue foreign exchange licenses to benefit friends and family or to line their own pockets. The recent decision to lower the commercial exchange rate closer to the black market exchange rate does nothing to change the government's control over foreign exchange demand and supply or the centralized system of procurement.

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The net losers in the current regime are exporters, who must surrender foreign exchange earnings at the overvalued official rate. Exporters of state-procured commodities (or centralized exporters) are hit hardest because they must surrender a higher portion of their earnings and at a lower rate. In June 2001, a government resolution abolished the foreign currency surrender requirements for small and medium-sized enterprises, which will increase the gap between centralized and noncentralized exporters.

**Implicit Taxes and Subsidies**

The foreign currency regime is just one part of an intricate system of implicit taxes and subsidies—subsidized credit and inputs, production quotas, price and wage controls—that benefit selected importers and producers at the expense of exporters, small and medium-sized enterprises, and farmers. The principal beneficiaries are the industries that receive subsidized credit and production inputs, such as energy producers, enterprises designated in the government's public investment program, and large joint ventures with foreign investment. Government officials, particularly regional and local level officials, also benefit from privileged access to and control over the bulk of the country's economic resources, a key source of their power and status under the Soviet regime. This system also reduces downward accountability. Under implicit fiscal regimes, which lack transparency, the governed cannot hold the government accountable for what does not officially exist and so is difficult to quantify.

Among those hurt by the system are farmers, who pay high taxes in the form of price controls, production quotas, and arbitrary confiscation of excess production, all of which offset any gains from access to cheap inputs. Furthermore, subsidized inputs are officially limited to farmers working on restructured state and collective farms, or shirkats, and private farms.9 Small and medium-sized businesses are also hurt by the system of implicit subsidies and taxes because directed credits and subsidized inputs go mainly to large enterprises and foreign joint ventures. One result is that most small enterprise growth is in trade rather than production.

**Explicit Taxes and Subsidies**

There is a system of explicit taxation and subsidies that benefits selected importers and producers, particularly industries that are part of the public investment program and joint ventures with foreign investment, at the expense of small and medium-sized enterprises and small farmers (dehqans). The government also imposes high excise taxes on goods exported for hard currency, such as cotton and energy, and on imported goods that would compete with domestically produced goods. Small and medium-sized enterprises are also hurt by high income and value-added taxes, which they try to evade by hiding their income and keeping a low profile, and this amounts to not investing in growth.

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9 See Thurman and Lundell (2001) for details on farm restructuring.
Thus there are many incentives that favor remaining as small as possible, thereby avoiding excessive taxation and harassment by local administrators (hokimiat) for contributions to extrabudgetary funds and public works projects. The explicit tax regime for individual entrepreneurs or microenterprises (such as hairdressers, caterers, and video tape sellers) is much more favorable because they can opt to pay a lump sum tax rather than the myriad taxes to which small and medium-sized firms are subjected.\textsuperscript{10} It is not surprising, then, that microenterprises are reportedly the fastest-growing segment among small and medium-sized firms, according to interviews with local business associations and researchers (Figure 8.1). Most of these firms (outside of agriculture) are involved in services and trade, which are less likely to generate substantial employment than manufacturing enterprises.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure81.png}
\caption{Newly Registered Small and Medium-sized Enterprises in Uzbekistan}
\end{figure}

\textit{Source: World Bank staff estimates.}

\section*{The Difficulty of Building Support for Reform}
Overcoming vested interests and building coalitions with those who stand to gain from reform is not an easy task in any country. In Uzbekistan, doing so is complicated by a political system that increases the costs of challenging the status quo, both because of uncertainty about who will lose and who will gain from reform and because of the much greater influence of those who benefit from current policies. The political system exacerbates uncertainty and therefore the risks involved in supporting economic reform. The political and economic systems and interests are so closely intertwined that the political costs of economic reform appear to be much higher than the net economic gains. Also, groups that receive

some benefits under the current system are unlikely to risk losing these gains even if that might mean maximizing their gains in the future.

The goal of economic policy in Uzbekistan, then, is to maintain control while allowing government officials, entrepreneurs, and farmers to make minor legal and illegal “adjustments” to relieve any political pressure. This makes it difficult for any group or set of interests to classify itself as either pure winners or losers under the status quo or under reform. Producers and exporters of state-procured commodities win from tax exemptions and subsidized inputs but lose from having to surrender hard currency earnings. Decentralized small producers and exporters lose from the foreign exchange regime and lack of access to directed credit and subsidized inputs but win from their ability to export legally—without having to surrender hard currency earnings—and to export illegally. Farmers lose from a centralized agricultural policy that dictates what they must grow and fixes the government purchase price, but win from preferred access to subsidized inputs and the existence of informal supply and information networks, and illegal export markets. Regional and local leaders win from their continued control over scarce resources and their ability to extract unofficial payments, but lose from their limited ability to expand their tax base and sources of legitimate revenue.

Potential winners lack both access to the government decision-making process and an effective coordinating mechanism through which to advocate economic reform. Since 1992, when the government began to put down any organized political opposition, there has been little opportunity for groups to organize independently of state-created political and social organizations, including pro-presidential parties, neighborhood committees, and business chambers and farmers associations. The coordination problem also applies, though less starkly, to government officials at the regional and local levels who continue to face many barriers to collective action.

**Entrenched Government Attitudes Favoring Intervention**

Officials in Uzbekistan believe that the government should intervene directly in the economy to promote objectives that are in the best interests of the population. This belief is reflected in policies to prop up large state-owned industries at the expense of small and medium-sized enterprises and of the private sector generally, and in resistance to market reform in the agricultural sector. It is also reflected in the government’s interference in the economic activities of small and medium-sized enterprises.

Maintaining employment—even at the expense of economic efficiency and growing poverty because of low wages—is considered the best way to maintain social and political stability. From this perspective, relying on the private sector for growth is risky because it reduces government control over the economy and will result in high unemployment, at least in the short run, considering that large state-owned enterprises currently employ almost half the working population.

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11 For details, see Jones Luong (2002), Abramson (1998), and Thurman and Lundell (2001).
This justifies exploiting small and medium-sized enterprises and small farmers to keep failing state-owned enterprises afloat. With this strategy, small and medium-sized enterprises in Uzbekistan are unlikely to have the positive effects on economic growth that they have had in other transition economies.\textsuperscript{12}

These perverse incentives are especially acute at the regional and local levels. In the Soviet centrally planned economy, subnational leaders and their constituents shared the expectation that officials would provide basic social services, including jobs, housing, and free access to health care and education. This expectation persists, motivating some subnational leaders to attempt to maintain subsidies and operate under a soft-budget constraint in order to provide a minimum level of subsistence to their constituents. Providing basic social services is also an important means of maintaining political support based on long-standing patronage networks.\textsuperscript{13}

In regions where the local economy depends on a single industry or sector, this may reinforce political incentives to continue the system of implicit taxation and subsidies. And because small and medium-sized enterprises are considered profitable and are often politically powerless, they are tempting targets of predatory behavior. As financing of social services is increasingly being delegated to the local level through unfunded mandates, local officials feel compelled to extract revenue from whatever source they can. Many small and medium-sized enterprises report that they are asked to contribute to the budget for repairing hospitals, building schools, and other social services—though it is difficult to know how pervasive this practice is without comprehensive survey data.

Control over the economy, moreover, is integrally related to the political power and status of government officials throughout Central Asia. Under Soviet rule, the rents extracted from the sale of cotton supported an elaborate patronage system that served as the basis for a system of social and political control (Figure 8.2). In the agricultural sector, where reform is most needed, central and local officials resist market-based initiatives, such as the privatization of land, rational use of water, and an end to mandated crops and production quotas, that would end their control over crop production and distribution, which is tied to their economic well-being and political power.

There are signs that these attitudes are changing. Local researchers, for example, claim that it is now possible to discuss currency deregulation openly with the central ministries, something that was impossible in 1996–99. Some regional and local officials are starting to take farmers and farmer associations more seriously, engaging in dialogue with them and taking their concerns and ideas into account. Officials in several regions have even been supporting microcredit programs, even though they are technically illegal. Some officials appear to be more willing to take risks and experiment with the private sector. The reasons behind this variation need to be explored further.

\textsuperscript{12} EBRD (2002).
\textsuperscript{13} Jones Luong (2002).
Limited Access to Information

The third major obstacle to economic reform in Uzbekistan is the limited access to information. Obtaining information about the latest laws, resolutions, and decrees requires having personal connections or being able to hire a business consultant. But most small firms and farmers lack this basic information and the means to acquire it. Thus the key problem may not be the legal environment, but accessibility to legal information and knowledge. Independent lawyers and consultants interviewed argued that Uzbekistan has developed a sound legal base for the development of small and medium-sized enterprises. The problem remains as to how to empower entrepreneurs to use this legal base to protect their rights. Many successful businesspeople noted in interviews that they are able to “protect themselves” from government interference and harassment simply by knowing their legal rights and responsibilities. Harassment by regional and local officials seems to be inversely related to the level of legal knowledge.

Timing of information is another problem. Many entrepreneurs and business association leaders complain that they are informed about legal changes that affect them only after the fact, and so have no time to influence or resist these changes. This adds to information and coordination problems, and impedes the ability to make long-term business plans.
Regional and local officials also claim that often they are not informed in a timely manner about legal changes or how to implement them. Some officials claimed that they were not aware of a government resolution passed in August 2001 that streamlines the registration process by significantly reducing the number of bureaucratic steps and the costs to businesses. It is also conceivable that in some cases this lack of knowledge is less a matter of capacity than convenience, because these officials can then continue to extract excess payments or fines from entrepreneurs.

**Strategies for Overcoming Obstacles in Uzbekistan**

Despite these obstacles, the potential winners—local officials, small and medium-sized enterprises, and farmers—are an important source of support for economic reform that can and should be cultivated. This can be done in the short term by revealing the net losses that are masked by contradictions in the existing system and the net gains that will be generated from reform. These groups are already collaborating to circumvent central dictates that restrict their economic activity, by diverting subsidized inputs away from farms that receive state orders to small and private plots that do not, and by paying and accepting bribes to avoid onerous licensing and registration procedures. The interests of these groups would be better served by working collectively to push for full privatization of production inputs, including land and access to irrigated water, and an effective licensing and registration process.

Their common interest in reform can be sustained over the long term by creating institutions that encourage longtime horizons, such as property rights, fiscal decentralization, and local elections, and that channel political demands effectively. The centralized appointments system and frequent rotation of local officials increase the political and economic risks of supporting reform for local officials as well as for the small firms and farmers who rely on their personal relationships with local officials. Fiscal decentralization and local elections would reduce this uncertainty by making the reciprocal relationships between these groups more explicit so that each could hold the other accountable.

The international donor community can help build coalitions among potential winners of economic reform in Uzbekistan in several ways. The simplest way is to maintain a presence in the country, thereby giving more time to groups that will incur the heaviest risks from supporting reform. The international donor community can also play a more active role by shifting the balance of power in favor of the potential winners, particularly farmers, owners and managers of small and medium-sized enterprises, and regional and local officials. Each of these groups has an independent interest in reform that is obscured by their collective response to perverse incentives. The international donor community should sponsor roundtables and support other channels for interaction among these three groups to help them realize their collective interest in economic reform.
Supporting Coalitions of Potential Winners

Research by the Center for Economic Research and the Institute for Social Research has found that farmers and owners and managers of small and medium-sized enterprises broadly support market-based initiatives, such as private property rights and an end to mandated crops, production quotas, and directed inputs. Some farmers favor change so strongly that they are willing to incur the serious social and financial risks of leaving the cooperative shirkats and pay membership dues for services in order to operate independently. The independent dehqans are a natural constituency for economic reform because they already operate according to market principles—leasing land, legally growing what they want, and securing their own inputs on the private market. They are also extremely productive, and yet have a limited ability to expand their economic activity under the current system because they cannot officially hire employees.

Regional and local officials have a more mixed record of support for market reform. Yet, there are growing signs that they are increasingly frustrated by the current system and willing to embrace some change. Their income and authority have become increasingly threatened by new intergovernmental fiscal relations and the intensification of centralized control over the economy. The central government has increased its claims on cotton revenues that were once more evenly shared with regional governments, while at the same time imposing unfunded mandates on regional governments for providing social services. There is some evidence that regional resistance to handing over cotton and wheat production is growing, forcing the central government on occasion to send the militia to monitor crop production. Regional and local officials have also sought additional revenue by imposing levies on the local population in the form of unpaid wages, road fines, and marketplace duties; illegally appropriating collective farm assets and lands; and leasing land to households on commercial terms.

The limited evidence available also suggests that the willingness of regional and local officials to support market-based initiatives and to promote a positive business climate for small and medium-sized enterprises varies, as does their support of fiscal decentralization. Such variation can be exploited by using the knowledge of what accounts for this willingness in some cases to influence others and by increasing contacts among officials who are more receptive to reform, thus strengthening their ability to develop their mutual interests and coordinate effectively.

The international donor community can also strengthen NGOs and government-sponsored business and farmers associations by soliciting their input and including them in the projects and activities sponsored by the donors. This will encourage the government to take these organizations more seriously, many of which are already becoming increasingly independent. The Women's Business Association, for example, helped establish credit associations throughout Uzbekistan long before they received official government approval, and the Chamber of Entrepreneurs raises funds by providing legal services to entrepreneurs for a
small fee. Both organizations also draft proposals to the government based on the concerns of their members and clients.

Other associations have served as a springboard for more independently minded business leaders and farmers to form their own smaller organizations. Farmers in Andijon and business leaders in Ferghana, for example, have developed informal networks that supply information on how to operate successfully within the current environment and gain access to a growing market for production inputs. Their effectiveness is limited, however, because there has been no effort to formalize these networks as legitimate small businesses or to use them to influence the legal environment. Yet, if allowed to grow, they could eventually serve as an effective coordination mechanism among owners and managers of small and medium-sized enterprises and farmers, first at a regional and local level and then at the national level as, for example, in Poland.14 This would have positive economic as well as political effects.

As support grows for reform and mechanisms to coordinate the various interests of those who support such reform and as reforms are put in place, the government’s ability to renge on those reforms is seriously compromised. The development of small and medium-sized enterprises, particularly in the agricultural sector, will also help to soften the blow of reforms, such as privatization of inputs—and, hence, resistance to such reforms—by creating a parallel system to replace the government monopoly on supply and fixed prices.

Providing Public Administration Training to Government Officials

To address the second major obstacle to economic reform in Uzbekistan, i.e., government attitudes about the proper economic role of the state, the international donor community can provide comprehensive training in public administration to officials at all levels. To promote effective coordination and positive interaction among governments and the private sector, moreover, business and farmers associations and other NGOs should be included in training sessions. NGOs, many with more access to business and market-related training than government officials, could take an active role by demonstrating the results of their efforts and activities, particularly in generating employment. This is known to have had a positive impact on government attitudes in Tajikistan and the Kyrgyz Republic, for example. One of the first areas of training should be fiscal decentralization, including its benefits. Government officials have little knowledge about how fiscal decentralization works and are more familiar with its disadvantages than its advantages.

This training should be coupled with efforts to improve the quality of data collection at regional and local levels. This will improve the government’s understanding of the economic situation at regional and local levels and of the likely effects of fiscal decentralization and other economic reforms.

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14 See McDermott (2002).
Increasing Access to Information

The third and final major obstacle to economic reform, limited access to information, can be addressed by financing the publication and distribution of information to the population at large and to regional and local government officials. This will help ensure that new laws, resolutions, and decrees are enforced more effectively. If existing organizations and networks, such as the Women's Business Association and the Chamber of Entrepreneurs, are used to publish and distribute these materials, this will also contribute to strengthening their financial independence and their role in promoting economic reform. These organizations currently have the desire to play such a role but lack sufficient funding, technical equipment, and staff to realize this goal. At the same time, the donor community should support the development of an independent local media as an alternative source of information and analysis.

Obstacles to Reform in Tajikistan

Tajikistan faces more structural and political impediments to economic reform than either Uzbekistan or the Kyrgyz Republic. Its economy—the weakest in all the post-Soviet states—was devastated by five years of civil war (1992–97), the Russian financial crisis in 1998, and a series of severe floods and droughts (1998–2000). It is the poorest of the Soviet successor states. At the time of the Soviet Union's collapse, the Tadzhik Soviet Socialist Republic received nearly half its budget from Moscow, most of it for social welfare programs; ran proportionately the largest deficit on interrepublican trade because of its dependence on other republics for raw materials and energy supplies; and exhibited the highest levels of social distress based on indicators such as high birth rates and infant mortality rates. These weaknesses were exacerbated by independence and the civil war that followed. The civil war interrupted the country's state building process, and at the end of the 1990s it remained a weakly institutionalized state, plagued by widespread poverty as high as 80 percent by some estimates, rampant corruption, and regional fragmentation fueled by economic monopolies and drug and weapons trafficking. The coalition government that emerged from the peace process in 1997 remains fragile.

As a result, Tajikistan lacks a coherent economic policy. The weakness of the central administration and regional challenges to the central government constrain its ability to formulate and implement broad, consistent economic reform. Although it has made some progress toward liberalizing the economy on paper,
resistance by vested interests, particularly at the regional and local levels, prevents many of these changes from being put into practice. While there are no official state quotas for cotton production, and the central government does not fix the selling price, de facto production quotas and artificially low prices are enforced by local officials, who use such tactics as withholding inputs from farmers who refuse to grow cotton and blocking farmers’ access to limited export markets. The central government has also introduced farm restructuring, but progress has varied greatly across the country, and local officials continue to interfere in private farmers’ decisions.

Despite sweeping privatization of small enterprises, a growing private sector in retail trade and services, and the sharp decline in industrial output overall, medium and large state-owned industries continue to dominate the economy. Directed credits and subsidies to these industries persist, though they have been reduced in recent years. The central government has been reluctant to cede control over industrial production, which is highly concentrated in nonferrous metals, provides substantial employment, and is a source of guaranteed income and barter as well as a means for providing social protection to the population.

In addition to the constant struggle between central and regional authorities for control over key economic resources, there are other manifestations of Tajikistan’s fragmented state. First, official corruption is rampant, from a robust drug and weapons trade—which thrives with the support of quasi-government officials and, according to UN representatives in Tajikistan, is linked to 30-50 percent of the country’s economy—to arbitrary transit fees on legitimate goods, which impede intraregional trade. Second, the legal and regulatory environment to support the development of the private sector is very weak, as is implementation of laws and regulations at the local level. A licensing and taxation system, for example, enables local officials to extract excess financial contributions from small and medium-sized enterprises, and is made worse by the limited access of owners and managers to information on laws and regulations.

**Fragmented State**

The main political obstacle to economic reform in Tajikistan is the absence of a fully functioning state. Although there has been some progress in strengthening government control, regional fragmentation and official corruption threaten state consolidation and continued peace. The five-year civil war that left 60,000–100,000 people dead and cost the country an estimated $7 billion officially came to an end with the peace treaty of 1997, which granted amnesty to members of the United Tajik Opposition (UTO), provided for their assimilation into a unified army, and established a coalition government that reserved 30 percent of administrative positions for the UTO. While the peace treaty, along with subse-

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20 World Bank (2001a), and Government of the Republic of Tajikistan (2002).
23 See Abdullaev and Barnes (2001) for details.
quent presidential (1999) and parliamentary (2000) elections, reduced hostilities and restored some stability, it has not served to fully consolidate the state.

For one thing, most former UTO members are not satisfied with the current arrangement. Many refused to join the government and now accuse those who did of having been co-opted. Many also complain that elites from the southern district of Kulob (Kulyab)—the president's original power base—have dominated key political and economic positions, with elites from the northern region (Sughd, formerly Leninabad), believing themselves to be underrepresented.\footnote{ICG (2001).}

This is particularly worrisome because the origins of the civil war were rooted in precisely this kind of dominance by one region, which bred resentment in excluded regions.\footnote{Atkin (1997); Rubin (1993); Schoeberlein-Engel (1995); Jones Luong (2002).} It is also a concern because this type of personalized government hiring breeds patronage, corruption, and vested interests opposed to reform.

Another impediment to consolidation of the state is that the strongest opposition to the current government continues to be regionally based. Garm and the Karetegin Valley, for example, remain strongholds of the Islamic Renaissance Party (IRP), and the party's popularity is growing in the north, long considered the most secular region.\footnote{ICG (2001).} This is potentially very destabilizing. The territory that the Soviet Union amalgamated to form the Republic of Tajikistan was made up of regions with little or no connection to each other either culturally, economically, or even geographically and did not include the main centers of Tajik culture in Central Asia, Samarkand and Bukhara.\footnote{See Rubin (1993) for details.} The civil war and its aftermath have exacerbated the cultural, economic, and geographical divisions among regions, creating regional fiefdoms funded by drugs and bolstered by weapons.

The absence of a fully functioning state severely constrains Tajikistan's economic reform process. As many who study the transition in the postcommunist world have increasingly come to realize, in the absence of effective central administration and rule of law the state cannot achieve the autonomy and capacity or build the public confidence necessary to design and implement a broad strategy of reform.\footnote{See Holmes (1997), Jones Luong (2002), Linz and Stepan (1996), Olcott (1996), Sperling (2000), Stavrakis (1993), Stoner-Weiss (2001), Way (2000), Grymala-Busse and Jones Luong (2002) for examples.} In Tajikistan the weakness of the central administration has further obstructed efforts at adopting and implementing economic reform as a result of an ongoing struggle between central and regional officials for control of key economic resources and a weak legal and regulatory environment due to resistance by vested interests and rampant official corruption.
Central Regional Struggle for Control of Resources

According to one Western non-governmental organization (WNGO) representative and a close observer, the central tenet of the government's economic policy is to maintain control over the primary sources of income. Even worse, divisions between the central and regional governments have manifested themselves in a struggle to control key economic resources. Of the three dominant sectors of the economy, the central government has captured more control over nonferrous metals (particularly aluminum) and electric power engineering, while regional governments have more control over cotton production.

During 1992–99 aluminum accounted for some 45 percent of industrial output and exports, for both geographical and structural reasons. The largest aluminum smelting plant in the country, Tursunzade Aluminum Smelter or TADAZ, is located near the capital, Dushanbe, where the central government generally has greater supervision. Aluminum production also depends heavily on imported raw alumina, which is secured at the central government level.

Electricity generation, concentrated at the Nurek power station just south of Dushanbe, and distribution are highly centralized and so are structurally more conducive to central rather than regional control. Hydroelectric power is a primary export for Tajikistan and is bartered for imports such as gas, electricity, and water from Uzbekistan, rather than yielding cash income. Thus, it holds less value for regional officials (and economic elites) than cash crops, such as cotton. The state company that supplies electric power, Bark-i-Tajik, is heavily in debt because of the high rates of nonpayment among industrial and household consumers, although the collection rate improved substantially during 2002. Electricity is an important source of political currency for the government by enabling it to provide a nearly free good to the population, though there has been some effort to raise tariff rates and increase charges to households. This is why central and regional officials contest over the power sector.

The central government has also tried to hold onto the control of heavy industry overall, which, in addition to nonferrous metals and energy, includes coal, chemicals, and machinery. Most medium-sized and large industrial enterprises remain state owned, earning Tajikistan one of the highest levels of state participation in industrial production among the transition economies. While there has been some effort at restructuring, the continuation of directed credits and subsidies, the growth of huge arrears, the predominance of barter, and the failure to enforce bankruptcy laws have significantly curtailed the ability of this sector to contribute to growth. The result has been a severe decline, with high unemployment and a significant shift in labor from industry to agriculture. Many dis-

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[29 World Bank 2001a.]
[30 World Bank 2001a.]
[31 World Bank 2001a.]
[32 World Bank 2001a.]
[33 World Bank 2001a.]

Pauline Jones Luong
placed workers have migrated to Russia, Kazakhstan, and the Kyrgyz Republic, seeking seasonal employment. This represents a net loss for Tajikistan's economy because the government has no effective way to claim remittances, and this is leading to increased political tensions.

The reluctance of the central government to fully cede control over heavy industry stems in large part from its desire to insulate itself from regional challenges by guaranteeing itself a source of income, barter, and social protection. There is a real fear that liberalization of industry will result in the same degree of regional control that came with the liberalization of agriculture.

There has been considerable liberalization in the cotton sector. The system of centralized procurement and export, along with the official government purchasing and export agency, Glavkhlopkoprom, was officially abolished in the mid-1990s. Farmers are free to sell cotton either through the Republican Cotton Exchange or directly to foreign buyers; cotton ginneries were completely privatized in 2001.

But the end of the state monopsony has not had the intended effects of liberalizing prices and increasing competition because regional monopolies have emerged in its place. In the two dominant cotton growing regions, Leninabad (about 30 percent of production) and Khatlon (60 percent), local officials enforce de facto production quotas and artificially low prices by withholding inputs from farmers who refuse to grow cotton, blocking farmers' access to external markets, and allocating the best land to cotton. Farm restructuring has proceeded at a much slower pace in these two regions because local officials have also blocked the redistribution and privatization of land to farmers.34

Farmers in cotton growing regions are thus the net losers, often forced to grow cotton and sell it to local ginneries (often at a loss) in lieu of growing more profitable cash crops or food for their families because the farmers need access to the production inputs that local officials control. Farmers are also subject to heavy taxation. The central government continues to derive some revenue from cotton production through hefty excise taxes.

**Weak Legal and Regulatory Environment**

Another important consequence of Tajikistan's fragmented state is a weak legal and regulatory environment, including inconsistent implementation. The legislative base for the development of small and medium-sized enterprises is weak. Farmers cannot secure private loans, for example, because they have no legal right to transfer land use certificates; without this collateral, banks will not risk lending. Tajikistan also lacks comprehensive legislation on microfinancing. Excessive bureaucratic interference (mainly through inspections) and licensing requirements also stunt the growth of small enterprises. The increasing tax burden—the payroll tax; social fund, pension fund, and road fund taxes; and the property tax—has led many firms to reduce their activities and register as

34 World Bank 2001a and author's interviews with farmers.
individual enterprises or to refuse to register at all. This explains both the dramatic increase in individual enterprises and the decline in small and medium-sized enterprises since 1995 (Figure 8.3). Entrepreneurs' limited access to information on laws and regulations and their inexperience using the legal system compound the effect of the weak legal and regulatory environment.

![Figure 8.3. Decline in Number of Small and Medium-sized Enterprises in Tajikistan](image)


1Based on data that include small and medium-sized enterprises that are not officially registered, and are therefore likely to be more accurate than government data.

There are some indications that the legal and regulatory environment is improving, which may be linked in part to the landslide victory of President Rakhmonov's party in the 1999 elections. Since then, Rakhmonov has reportedly made considerable progress in consolidating his power at the central level and appears to be using this power to further reform. In September 2001, the government consolidated the former departments of inspection and taxation into the new Ministry of Revenue. According to local NGO representatives, this was in response to a business leader's complaints that the principal barriers to business development were high taxes and complicated registration. The central government has also shown an interest in drafting legislation to support microfinancing. Despite these efforts, vested interests at all levels of government resist implementing reforms that would reduce their political influence and economic gains. Local officials and their business partners who enjoy monopoly rights in the cot-

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ton sector, for example, are unwilling to forfeit rents by supporting competition. Despite its recent commitment to reducing subsidies, the central government continues to distort market reforms, such as privatization and price liberalization, by subsidizing failing industries through directed credits and arrears, and by not enforcing bankruptcy laws. Also, corruption is rampant at all levels of government because of weak enforcement, patronage in hiring civil servants, and low wages.

**Limited Access to Information**

Access to information is extremely limited. The Chamber of Commerce, a quasigovernmental agency, publishes laws and regulations only once a quarter. Official information is prohibitively expensive to obtain for farmers and entrepreneurs. As a result, most farmers are unaware of their rights regarding land use and access to inputs and export markets, and most entrepreneurs are unaware of the recent improvements in the regulatory environment and thus are unable to protect themselves against arbitrary inspections.

Moreover, unlike in Uzbekistan, there are few private consultants to advise businesses on such matters. The NGO sector, however, is much more developed than in Uzbekistan. Some local NGOs are already addressing this problem by publishing and disseminating relevant laws and decrees to their own clients, but their scope and financing for such activities are limited. The media, which some have described as active and relatively pluralistic, is also limited because newspapers are a luxury for most people in impoverished Tajikistan and because there is little access to other media in the regions.36

At the same time, both struggling entrepreneurs and government officials, particularly at the local level, lack fundamental knowledge about how markets work. Some organizations, such as the National Association of Small and Medium-sized Businesses, provide training and advise entrepreneurs on how to create business plans and advertise their products. But the services they provide are hardly enough to meet the growing demand, and local officials still lack a source for knowledge about markets.

**Obstructions to Trade**

Legitimate trade, within Tajikistan and between Tajikistan and its Central Asian neighbors, is obstructed by official corruption, requirements for excessive documentation, high export and import tariffs, transit fees on trucks and freight-carrying vehicles, and border closures. Corrupt border guards and customs officials have become a systemic problem, often purchasing their lucrative positions. As a result, transit costs are prohibitive, the growth of small and medium-sized enterprises beyond local markets is stunted, and enterprises connected by common resource use and suppliers are denied access to inputs. Transport costs are inflated by the demands of local trucking monopolies, extortion along roads, and geographical constraints that are exacerbated by border closures. Several districts

within Tajikistan are separated from each other by Uzbekistan, requiring passage through multiple customs checkpoints.

The most severe barriers to trade, however, come from official sources. Uzbekistan, in particular, has erected high barriers to regional trade in response to its fear of cheap imports from its poorer neighbors and to security concerns after incursions by Islamic militants from Tajikistan in 1999 and 2000. Uzbekistan has even placed mines along its border with Tajikistan, destroying a once vibrant local economy based on cross-border trade in the Ferghana Valley.

**Strategies for Overcoming These Obstacles in Tajikistan**

While the political obstacles to economic reform in Tajikistan are daunting, they are not insurmountable. They can be overcome through several simultaneous strategies:

- supporting the central government’s efforts to restructure public administration to increase efficiency and improve financial monitoring capacity as a way to smooth the transition to greater decentralization;
- introducing civil service reforms to increase transparency in hiring and to reduce the use of bribes in exchange for lucrative jobs, such as border guards and customs officials;
- strengthening reciprocal relationships between the government and the private sector;
- cultivating the interests that stand to benefit most from economic liberalization—farmers and owners and managers of small and medium-sized enterprises, as well as officials in non-cotton producing regions;
- providing market incentives for regional elites to support private and non-drug and non-weapon-related economic activity;
- targeting impoverished rural areas and border regions for economic development and financing;
- financing the publication and distribution of information to the population and to regional and local government officials in a timely manner; and
- working with local officials and neighboring governments to reduce barriers to transit.

These efforts by the international donor community to advance reform in Tajikistan should focus on five key areas:

- improving relations between government and the private sector;
- building coalitions among potential winners;
- supporting the development of the private sector;
increasing access to information; and
- reducing barriers to trade.

**Improving Relations Between Government and the Private Sector**

The international donor community should build on the positive relationships that have been emerging between all levels of the government and the private sector, particularly business-oriented NGOs. Several organizations have established partnerships with government officials and governing bodies. The National Association of Small and Medium-sized Businesses (NASMB), for example, advises the central government on ways to increase employment and has partnerships with the Ministry of Labor, the official trade unions, and the Anti-Monopoly Committee. Most NGO leaders believe that the government has become more supportive and realize that NGOs provide an array of social and financial services and can generate employment and relieve poverty. NGOs consider the government's recent adoption of a new World Bank and IMF-supported Poverty Reduction Strategy as an opportunity to gain greater government support for their activities.

Independent organizations such as the NASMB could also work with government units at the local level to provide business training for both entrepreneurs and officials, helping to promote productive dialogue on the legal and regulatory frameworks. The NASMB also participates in roundtables with the Anti-Monopoly Committee, helping to draft legislation on taxation and regulation of the private sector.

Another source of potential support for business interests is the national parliament. Although the parliament currently serves as a rubber stamp for the decisions of the president, the deputies represent a wider group of economic and local interests. Empowering the parliament might curtail the ability of a few central leaders in the executive branch to defend their own vested interests. Deputies could also represent the growing interests of the private sector in a pro-market business environment, which would include tax and regulatory reform as well as the rule of law. The international community should push for greater democratic reform by advocating a stronger role for the legislative branch.

**Building Coalitions Among Potential Winners from Reform**

The international donor community should cultivate the interests of those who stand to benefit most from economic liberalization in Tajikistan and help to build coalitions among them. These include farmers, owners and managers of small and medium-sized enterprises, and regional and local governments. Farmers and entrepreneurs increasingly are showing signs of readiness to move toward a market economy. Officials in non-cotton-producing regions are also more receptive to reform. Coordination within and among these interest groups should be facilitated by sponsoring meetings, soliciting the groups' input in projects and activities, and including them in sponsored projects and activities. At the same time,
regional leaders in cotton-producing regions in particular must be encouraged to support greater competition. The international community should push for continued monitoring of this process, while empowering farmers by providing a forum in which they can expose the vested interests that are sabotaging the process.

One way to cultivate regional leaders’ interest in market reform is to smooth the transition toward greater fiscal decentralization. This can be done by supporting the central government’s efforts to restructure public administration in order to increase efficiency and improve the government’s financial monitoring capacity. These efforts to restructure public administration, including the establishment of the State Committee for Financial Control in 2001, clearly signal the government’s desire to address some of these problems.37

**Supporting Development of the Private Sector**

The international community can promote development of the private sector by supporting judicial and administrative reform to protect the rights of farmers and entrepreneurs and by supporting efforts to create the infrastructure needed to serve private farms and businesses. Supply networks, transportation services, and trade organizations are poorly developed and are prime areas for the development of private sector activity.

**Increasing Access to Information**

The international donor community can increase access to information by financing the publication and distribution of information to the general population and to regional and local government officials in a timely manner. NGOs can be strengthened by involving them directly in these efforts. Financial and technical support should also be made available to promote the local mass media. This is another area for the development of private sector activity, as evidenced by the proliferation of business consultancies in Uzbekistan.

**Reducing Barriers to Trade**

Finally, the international donor community can stimulate private sector development by reducing barriers to intra and interstate transit and trade. This requires working with local officials and neighboring governments to find more economically efficient (and less deadly) ways to secure their borders. Extensive civil service reform should be introduced to increase transparency in hiring and reduce the use of payments in exchange for lucrative jobs, such as border guards and customs officials. Border guards’ salaries might also be supplemented with international funds to reduce the temptation to extract bribes. The international community might also consider encouraging the central government to simplify tariffs to reduce opportunities for corruption, to set targets for acceptable time delays at

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37 For details, see Government of the Republic of Tajikistan (2002).
borders to monitor corruption, and eventually to work together with its Central Asian neighbors to establish a common customs area with no internal borders.

**Obstacles to Reform in the Kyrgyz Republic**

The Kyrgyz Republic has undergone much more extensive economic reform than either Uzbekistan or Tajikistan. In mid-1993, the central government launched a broad reform package that encompassed both the weak industrial sector and the relatively robust agricultural sector. The reform package included macroeconomic stabilization, an open trade regime, World Trade Organization membership, price liberalization, and an extensive privatization program that resulted in the near-complete transfer of all enterprises and over 50 percent of all land from state control to private ownership. More recently, the government has introduced significant tax reform and made a commitment to improve fiscal management and reduce budget arrears.

Thus the Kyrgyz Republic has a much stronger foundation for a market-oriented economy than Uzbekistan or Tajikistan. It has made greater progress on both small and large-scale privatization and enterprise reform than the CIS average. It has also significantly reduced the direct role of the state in the economy. These reforms have demonstrated promising economic results, with the economy growing, albeit unevenly, since 1996: 8 percent in 1996–97, 3 percent in 1998–99, and 5 percent in 2000–01. Inflation has also declined significantly since the 1998 Russian financial crisis: to 9.6 percent in 2000 from 39.9 percent in 1999.

Nonetheless, the Kyrgyz Republic shares many of the same political obstacles to reform with Uzbekistan and Tajikistan. It relies heavily on agriculture—mainly livestock, cotton, grains, and tobacco—which accounts for approximately half of its GDP. The bulk of the labor force has shifted from industry to agriculture because industry no longer operates at full capacity and because agriculture offers at least some degree of subsistence farming. Agriculture has undergone significant reform, and productivity has increased in recent years. Local markets for inputs (including access to credit) and distribution, to domestic as well as foreign destinations, however, remain underdeveloped. The shortage of arable land creates continued pressure for land redistribution. Further agricultural reform is also obstructed by regional and local leaders, who fear loss of control over scarce land and an outbreak of ethnic conflict in the southern regions, where the country’s arable land is concentrated.

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38 This section benefited enormously from informal discussions with Carlo Segni, Consultant, World Bank office, Bishkek, and interviews with numerous local scholars and researchers, officials, farmers, entrepreneurs, leaders of small business and farmers’ associations, and representatives of international NGOs in Bishkek and Osh.

39 For details, see World Bank (2001b).

40 EBRD (2000).

41 EBRD (1999) and USAID (2002).

42 USAID (2002).

43 Abazov (2002).

44 For details, see Elebayeva (1991).
The primary obstacle to reform in the industrial sector is its weak implementation at the regional and local levels because of resistance from insiders; excessive taxation and regulation; endemic corruption; and the increasing barriers to foreign trade, particularly with Kazakhstan and Uzbekistan. Growth of small and medium-sized enterprises is hindered by a burdensome system of explicit and implicit taxation, which has contributed to a decline in the number of officially registered small and medium-sized enterprises.

Broad agricultural and industrial reform has had some impact on the country's standard of living. According to a recent World Bank report, reforms reduced the number of poor people by an estimated 300,000 during 2000–01 and reduced inequality. Nonetheless, a little more than half the population still lives at or below the poverty, rural poverty remains high. Further poverty reduction depends on the government's continuing commitment to reform to sustain and accelerate economic growth.

Unlike the cases of Uzbekistan and Tajikistan, the primary impediments to economic reform in the Kyrgyz Republic lie mainly with the implementation, rather than the adoption, of market reforms. These include a predatory business environment, official corruption, limited access to information, trade and transit barriers, and contraband.

**Weak Implementation of Reform**

Obstacles to the full realization of reform are particularly acute in the industrial sector. Arrears between enterprises, on wages and taxes, and in the budget, as well as direct state subsidies to enterprises interfere with the ability of private and state enterprises to respond to market incentives. Enterprise arrears have been on the rise since 1995, reaching an estimated 6.3 percent of GDP by 1999. The World Business Environment Survey found the highest percentage of reported overdue payments for suppliers and workers. Arrears are highly problematic for enterprise restructuring because they produce economic distortions and exacerbate other problems. Interenterprise arrears contribute to tax arrears, while wage arrears contribute to widespread poverty. Direct subsidies to enterprises have also increased steadily since 1994, reaching 2.3 percent of GDP by 1999 and indicating state support for enterprises that have not fully adapted to new market conditions.

The problem of arrears and subsidies is not limited to state-owned enterprises. Nominally private enterprises, particularly if they account for a significant amount of local employment, are often allowed to accumulate tax arrears by local authorities and also to rely on noncash transactions to remain in operation. The primary mode of privatization in the Kyrgyz Republic was to transfer assets to

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45 World Bank (2002a).
49 EBRD (2000).
managers and workers, who continue most of the old practices because they lack the knowledge or capital necessary to invest in restructuring.

Efforts to protect domestic industry through subsidies and soft-budget constraints are strongest at the regional and local levels because leaders feel a sense of responsibility to maintain the livelihoods of the population at least at some minimum level. Firms that participated in the World Business Environment Survey, for example, reported that arrears to local governments make up a higher share of their total overdue payments than do arrears to the national government. As in Uzbekistan, these leaders are also motivated by a fear of social unrest and the loss of direct control over scarce economic resources.

**Predatory Business Environment and Official Corruption**

Economic reform is also constrained by a predatory business environment and endemic corruption among officials. Despite significant tax reform, tax compliance remains low.\(^{50}\) High tax rates and the great number of taxes encourage enterprises to underreport their income. High payroll taxes also limit incentives to increase employment. Many additional taxes and fees for some firms and exemptions for others are created outside the Code.\(^{51}\) Enterprise tax arrears continue to be high as well, although they have declined in recent years.\(^{52}\) Widespread official corruption also lowers revenue collection. The highest proportion of bribes spent on government “services” reported in the World Business Environment Survey (almost 54 percent) was to avoid excessive taxation. The complicated licensing and permit system creates additional opportunities for rent seeking by local officials. The proportion of bribes spent to avoid taxation or obtain licenses is much higher than the average for postcommunist states.\(^{53}\)

This environment of heavy taxes, multiple administrative barriers, and bureaucratic control is particularly damaging to small and medium-sized enterprises, driving them into the shadow economy. In interviews, representatives of entrepreneur organizations consistently cited the burdensome licensing, permits, and certification process and frequent inspections by local officials—often resulting in unofficial payments—as the chief impediments to small and medium-sized enterprise development. Many attribute this harsher treatment to the fact that small and medium-sized enterprises do not enjoy the protection of regional and local leaders, both because they are considered to be more profitable than large enterprises and because they do not provide so many (visible) jobs.

More generally, the prevalence of corruption constitutes a significant obstacle to business development. The low and declining number of small and medium-sized enterprises in the Kyrgyz Republic is especially surprising because the country has one of the most active sectors in the region.\(^{54}\) It is a cause for serious

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\(^{50}\) World Bank (2001b).

\(^{51}\) World Bank (2001b).

\(^{52}\) IMF (2000).

\(^{53}\) Hellman and others (2000).

\(^{54}\) For details, see Anderson (1999).
concern because these enterprises are the most likely source of business expansion and employment opportunity, given the country's limited domestic market, and because the decline in officially registered small and medium-sized enterprises represents a net loss for economic growth.

Corruption in the Kyrgyz Republic is related to limited civil service reform and local poverty, as well as the lure of the drug trade. As in Tajikistan, officials often accept unofficial payments in exchange for lucrative jobs, such as border guards and customs officials, and people in those positions then view bribe taking as their primary form of repayment. Illicit drug cultivation is often the only option for impoverished farmers, particularly those living in regions along the border with Tajikistan.

**Limited Access to Information**

As in both Uzbekistan and Tajikistan, one of the biggest obstacles to the development of small and medium-sized enterprises, according to leaders of the Committee for Private Entrepreneurs, is that most entrepreneurs don't know their legal rights or how to defend them. Several factors constrain their ability to obtain information about changes in legislation or regulations. First, there is generally a low awareness of the value and benefits of business support services. Second, access to these services is limited, particularly outside of Bishkek and Osh. Finally, small and medium-sized enterprise owners and managers prefer to remain anonymous because they fear retaliation by local officials.

Entrepreneurs, farmers, and local government officials also have limited access to information about private sources of production inputs, distribution networks, and domestic and foreign markets for their goods and services. Many farmers, for example, still view expanding beyond subsistence farming as too risky, despite long-term leases for land and private land ownership. Similarly, many local officials believe that it is necessary only for each village to be self-sufficient and to produce goods for internal consumption.

**Trade and Transit Barriers and Contraband**

Although the Kyrgyz Republic has an open trade regime, it has been unable to reap the full benefits, due largely to political disputes with its neighbors. Strained relations with Uzbekistan have resulted not only in an uncertain supply of electricity but also in significant trade barriers. Although both countries agreed in the early 1990s to maintain a barter system of exchange—trading Uzbekistan gas in the winter for Kyrgyz water in the summer growing season—this agreement has been violated repeatedly. Furthermore, Uzbekistan's efforts to guard its borders by laying land mines and requiring excessive documentation have destroyed legitimate cross-border trade. The Kyrgyz Republic also has disputes with its two other biggest trading partners, Kazakhstan and the Russian Federation, involving unpaid debts and high import tariffs. Finally, Kyrgyz exporters encounter official and unofficial hurdles with all three countries, and leaders of the Committee for Private Entrepreneurs maintain that it is much easier to import than to export.
These trade barriers have hurt the Kyrgyz economy, especially the development of small and medium-sized enterprises. Exports declined by almost 20 percent in 1999 due to punitive tariffs imposed by Kazakhstan and frequent border closings by Uzbekistan. Trade with Russia has also suffered as a result. Importers have turned increasingly to contraband to avoid high Kyrgyz import duties. Trade difficulties thus provide another incentive for small and medium-sized enterprises to move to the informal sector.

**Strategies for Overcoming the Obstacles to Reform**

Several actions can be taken by the international donor community to sustain the current level of economic reform in the Kyrgyz Republic and to promote further reform:

- making economic reforms more sustainable by actively supporting development of the private sector;
- strengthening reciprocal relationships between the government and the private sector;
- reducing corruption by introducing extensive civil service reform to increase transparency in hiring and reduce the use of payments in exchange for official positions;
- creating market incentives for regional and local officials to support private economic activity and for regional and local officials and farmers to resist participating in narcotics production and trafficking;
- targeting impoverished rural areas, especially border regions, for economic development and credit programs;
- financing the publication and distribution of information to the population at large and to regional and local government officials in a timely manner; and
- working with neighboring governments to reduce barriers to transit.

Thus the international donor community should concentrate on increasing the effectiveness of the economic reforms that are already in place. First, the donor community should facilitate dialogue and interaction between small and medium-sized enterprise owners and managers and government officials, particularly at the local level. Organizations that support entrepreneurs are generally at the initial stages of development. While professional and trade associations are more developed and more active throughout the country, they are less likely to be effective because they are too closely associated with the government. The purpose of such dialogue and interaction should be to foster cooperation in monitoring implementation of the legal and regulatory frameworks and to increase entrepreneurs' direct input into improving these frameworks. Creating a feed-

\[15\text{ IMF (2000).}\]
back loop between government and business will become even more important once local officials are all elected rather than appointed.

Second, the international donor community should expand its support for business training to local officials as well as to entrepreneurs. The combination of more productive dialogue between local business and government, and more business training opportunities will help to reverse the declining trend in formal sector small and medium-sized enterprises. Increasing the fiscal incentives for local officials would also pave the way for less predatory behavior and provide further encouragement for small and medium-sized enterprises to rejoin the formal economy. The growth of tax-paying enterprises will also help to provide an alternative source of income to narcotics production and trafficking for both officials and farmers. Special efforts should be targeted at impoverished rural areas and border regions.

Third, as in Tajikistan, official corruption can be reduced through a combination of reforming the civil service to increase transparency in hiring and reduce the use of payments in exchange for official positions; supporting the development of an independent judiciary and strengthening its role in the adjudication of disputes; and prioritizing more effective audit processes and budgetary control at the central and regional levels.

Fourth, as in both Uzbekistan and Tajikistan, the international donor community should finance the publication and distribution of information to the population at large and to regional and local government officials in a timely manner. It should also support the development of independent organizations that provide such information to entrepreneurs.

Finally, barriers to interstate trade can be reduced by working actively with the Kyrgyz Republic’s neighbors to negotiate mutually beneficial trade agreements and to implement constructive border control measures that will alleviate mutual security concerns without impeding trade.

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Economic Development and Private Sector Growth in the CIS-7 Countries: Challenges and Policy Implications

Nancy Vandycke*

Despite widespread donor assistance and substantial amounts of aid, growth rates in the low-income CIS-7 countries have been much lower than anticipated. According to the official statistics, the CIS-7 countries are economically worse off than they were a decade ago at independence. They have been unsuccessful at "catching up" with the most advanced transition countries of Central and Eastern Europe, and the Baltics. In 2001, real GDP was about a third of its 1989 level in the CIS-7 countries, compared with 88 percent in the advanced reformers. Official per capita incomes range from US$158 (Tajikistan) to US$652 (Azerbaijan), ranking them among the low-income developing countries (though on many health and education indicators, they rank much higher); they are all International Development Association (IDA) recipient countries.

The Growth Policy Puzzle

Growth performance has been disappointing despite the remarkable expansion of the private sector. Private sector activity has grown both in absolute terms and as a percentage of gross domestic product (GDP). Official statistics show that the private sector accounts for an average of 52 percent of GDP in the CIS-7 countries. All the countries have completed small-scale privatizations, and they are more than half way toward their goals in the privatization of the large-scale enterprises and the sale of strategic enterprises and public utilities.1

If the private sector—the sector with the greatest potential for economic growth and job creation—has grown during the past 10 years, why has economic

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1 EBRD (2001).
development fallen behind in the CIS-7 countries? Why is the real sector unable
to move forward in countries that have completed macroeconomic stabilization
and undertaken basic structural reforms? And why are the CIS-7 countries unable
to catch up with the rest of the region?

On a figure plotting the private sector share of GDP and the real GDP index,
the CIS-7 countries lie systematically below the trend line (Figure 9.1). It is true
that the CIS-7 countries have, on average, a lower private sector share of GDP
than the advanced reformers of Central and Eastern Europe and the Baltics. Yet
many countries in the advanced reformers group have a similar private sector
share in GDP and appear on track for growth.

One reason may be that the initial endowments in the CIS-7 countries at independence
were well below those in Central and Eastern Europe and the Baltics. The CIS-7 countries
were geographically far from industrial markets and the advanced economies, had no history of a market economy, and were basically rural
economies. They faced far greater challenges than the advanced reformers because
they had to manage the challenges of transition and development simultaneously.

Another reason is the type of activities in which the private sector in the CIS-7
countries is engaged, which tend to be low value-added activities, often in the informal
sector. The private sector in the CIS-7 countries comprises a large number of “traders” but many fewer real entrepreneurs. The private sector is concentrated
on exploiting arbitrage opportunities rather than on country-building activities, and
it operates at the interstices between the legal and illegal worlds. Unless the private
sector matures, creating new enterprises and competing in the international
marketplace, the economic growth benefits of private ownership will be minimal.

A third reason is the high-risk environment for the private sector. The CIS-7
countries are among the poorest countries of operation for international financial
institutions focused on the private sector, such as the European Bank for Reconstruction and Development and the International Finance Corporation. The international financial institutions have minimal exposure in the private sector of the
CIS-7 countries, avoiding real sector investment projects with the exception of
projects in natural resources. Overall, investment projects have performed poorly.
Credit lines have been slow to disburse, the investment climate has not been favorable for equity investments, and the performance of regional equity funds has been limited. This low exposure and poor performance across the CIS-7 countries suggests that investing in a more advanced reformer like the Kyrgyz Republic is as challenging as investing in a lagging reformer like Uzbekistan.

Private investors have been equally reluctant to invest in the CIS-7 countries,
again with the exception of natural resources. Foreign direct investment rates are
among the lowest in the world. This reluctance to assume political and project
risks is also evidenced by the high level of domestic interest rates. Nominal
interest rates for hard currency lending average 25 to 35 percent in the CIS-7
countries, a rate that includes a large premium to compensate for the high risk.

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2 Djankov and others (2002).
Still, there is an inherent entrepreneurial dynamism throughout the CIS-7 countries. One indicator is the labor force, which has been increasing steadily in newly created enterprises in Azerbaijan, the Kyrgyz Republic, and Moldova relative to privatized or state-owned companies. This growth reflects ingenuity on the part of entrepreneurs in the context of an overall collapsing official economic system. In urban areas, businesses often show good knowledge of the tax system and the “rules of the game.”

The private sector still has a long way to go, however, before it can emerge as an independent sector, free to operate without undue government interference. Growth in the private sector has come mainly from expansion in the informal sector, which can be as large as two-thirds of GDP in the CIS-7 countries (Table 9.1).

**Nature of Private Sector Growth**

During the 1990s, the large-scale, Soviet-style enterprises vanished, and small enterprises began to contribute an increasing proportion of economic activity. In Uzbekistan, for instance, the number of active registered large and medium-sized firms declined by 14 percent between 1999 and 2001, while the number of small firms grew by nearly the same amount. This size distribution is consistent with the low income level in the CIS-7 countries, in which the vast majority of firms are micro- or small scale.

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3 Siegelbaum and others (2001).
Table 9.1. Size of the Informal Economy in the CIS-7 and Advanced Transition Countries
(Percentage of GDP and employment)

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>CIS-7 countries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Georgia</td>
<td>66</td>
<td>53</td>
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<tr>
<td>Azerbaijan</td>
<td>60</td>
<td>51</td>
</tr>
<tr>
<td>Armenia</td>
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<td>40</td>
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<tr>
<td>Moldova</td>
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<tr>
<td>Kyrgyz Republic</td>
<td>39</td>
<td>29</td>
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<tr>
<td>Uzbekistan</td>
<td>33</td>
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<tr>
<td>Advanced transition countries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poland</td>
<td>27</td>
<td>21</td>
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<td>Slovenia</td>
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<tr>
<td>Hungary</td>
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<td>21</td>
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<tr>
<td>Czech Republic</td>
<td>18</td>
<td>13</td>
</tr>
</tbody>
</table>

*Source: Dzankov and others (2002).*

*Note: Data for Tajikistan are unavailable.*

Profile of Activities

The private sector is concentrated in low value-added activities, with minimal potential effect on growth:

- **Arbitrage activities.** In Uzbekistan, for instance, local trade intermediaries provide inputs for manufacturing companies, owing to the lack of a domestic market for raw material and restrictions on the quantity of imported inputs. These trade intermediaries make enormous profits on the scarcity of hard currency and inputs. Prices are highly unpredictable and significantly higher than official prices, contributing to the uncertainty for manufacturing firms. In Azerbaijan, about two-thirds of a typical bank’s portfolio consists of lending for trading activities, which offer high turnover and high return. The social benefits of trade lending are low, however.

- **Service sector.** According to official statistics, 51 percent of Georgia’s GDP is produced by the service sector, with less than 2 percent of it in financial intermediation services.
The agricultural sector. The number of people employed in the agricultural sector in the CIS-7 countries increased during the 1990s. The agrarian sector is the largest employer in both the Kyrgyz Republic and Tajikistan. This “re-agriculturalization” is a reversal of the traditional development pattern. In the Kyrgyz Republic, agricultural production grew 16 percent during the 1990s, while real GDP fell 30 percent. As in other low-income developing countries, private farms in the CIS-7 countries struggle with such basic problems as access to water, machinery, fertilizer, credit, and markets to sell their products.

The CIS-7 countries also share a dependence on a limited range of natural resources (Figure 9.2). Oil, natural gas, electric power, raw cotton, ferrous and nonferrous metals, gold, and uranium account for more than four-fifths of exports from Central Asia. In 1998, gold accounted for half of Kyrgyz exports, and electric power, aluminum, and cotton accounted for 85 percent of Tajik exports. Gold, uranium, and cotton accounted for 76 percent of Uzbek export earnings. This dependence on natural resources increased during the 1990s. Studies have found a negative correlation between the share of world price-sensitive goods in total exports and the ownership composition of exports in the CIS-7 countries. For instance, in Uzbekistan, where a significant share of exports depends on natural resources, private firms supply only a small share of exports. In contrast, in the Kyrgyz Republic, where there is less export dependence on natural resources, private firms supply a larger share of exports.

Worldwide experience shows that a development pattern based on natural resources has several other drawbacks:

• In extractive resource-based economies with heavy foreign direct investment, the expansion of domestic, downstream companies is generally limited because producers have well-developed technologies for living without local support.

• The economic growth derived from exports of these resources is determined by the world market—and is vulnerable to fluctuations in world demand and prices. The economy thus becomes dependent on the world market, unless development of the extracting sector is complemented by an active industrial policy.

• Investments in the extractive sector are typically of an enclave type, large enough to support their own infrastructure and sufficiently insulated that they can operate in weak regulatory environments. Evidence shows that this development pattern weakens the overall business environment.

• Governments grant privileges to foreign companies under well-crafted special agreements that give the companies bargaining power with the government.

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4 Petros (2002).
5 Petros (2002).
Figure 9.2. Share of World Price-Sensitive Goods in Total Exports of Selected CIS-7 Countries, 1996-2000
(In percent)

Source: The Economist Intelligence Unit (2000).

and let them credibly threaten to leave—advantages that override possible dis-advantages, such as being unfamiliar with local circumstances. Domestic, non-extracting companies seeking to market goods and services to the upstream companies do not receive the same privileges from governments, putting them at a disadvantage in dealing with the foreign companies.

Economic Performance of Small Enterprises
Evidence for the CIS-7 countries and indirect evidence from neighboring countries such as Russia, Ukraine, and Kazakhstan suggest that the development of small enterprises in the CIS-7 countries has been significantly different from that in the advanced reformers of transition Europe. The (official) contribution of small enterprises to value added and employment is generally well below that in the advanced reformers. For example, registered small enterprises account for 36 percent of GDP in the Kyrgyz Republic (see Box 9.1) compared with 58 percent in the Czech Republic. Some evidence suggests that there is a threshold of about 40 percent for the shares of small enterprises in employment and value added, below which economies do not take off.

In the CIS-7 countries, the productivity differential between new (mostly small) and old (mostly larger) enterprises is still considerable after a decade of transition, whereas in the advanced reformers, the differential has diminished. Empirical evidence shows that new, small enterprises in transition economies tend to

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7 World Bank (2002a).
Box 9.1. Estimates of the Size of the Small Enterprise Sector in the CIS-7 Countries

Lack of consistent, reliable data makes it difficult to establish the actual size and structure of the small enterprise sector in the CIS-7 countries. In Azerbaijan, estimates of the total number of registered small enterprises range between 20,000 and 30,000, while estimates for the number of people engaged in entrepreneurial activity but not registered as legal entities range from 63,000 to 180,000. In Georgia, registered small enterprises account for an estimated 58 percent of employment. In the Kyrgyz Republic, 154,000 registered small enterprises contribute 36 percent of GDP and 23 percent of the country’s industrial production and employ 1.1 million people. In Uzbekistan, small private enterprises—about 80 percent of them in the agricultural sector—account for 16 percent of total employment.

Holden (2002).

be more productive than old enterprises. At the start of the transition, the labor productivity differential between new and old enterprises tends to be significant. But as the transition proceeds and resources are progressively reallocated, the productivity differential is expected to erode.

What went wrong? For a small enterprise–based pattern of development to deliver high growth, several preconditions should be met:

- enough large enterprises that can perform activities requiring large fixed investment, such as processing, marketing, and exporting;
- a well-functioning public sector that can supply necessary infrastructure and guarantee the security of transactions; and
- a structured market for development of subcontracting and supply chains (good coordination among entrepreneurs).

These conditions are often lacking in the CIS-7 countries. In the Kyrgyz Republic, a recent assessment found no mechanism to bridge the gap between the excess production capacity of large privatized enterprises and smaller enterprises’ need for production capacity. Large state enterprises, now privatized, were originally built to be self-sustaining, producing all their own inputs. By contrast, small enterprises lack access to capital equipment and have to import a large share of their inputs. Thus, unless there is a structured market for subcontracting, small enterprises will not be able to lead the process of economic growth.

The increase in the number of small enterprises in the CIS-7 countries has been insufficient to compensate for the collapse in activity of larger enterprises for

8 World Bank (2002a).
9 Hellman and others (2000).
10 World Bank (2002b).
several reasons. First, small firms have a lower capacity to deal with a defective business environment. Second, small enterprises are often spin-offs of large, vertically integrated firms that were broken down into smaller units, but with negligible effect on performance. And third, as mentioned, small enterprises are concentrated into low value-added activities.

Reforms for Private Sector Development

Official statistics suggest that much progress has been made in the CIS-7 countries in terms of increasing private sector participation in the economy and transferring ownership to the private sector. Yet the state remains ubiquitous in the economies of the CIS-7 countries.

Transfer in Ownership—Often to Insiders

Evidence for the CIS-7 countries suggests that most of the increase in private sector activity is attributable to the privatization of state enterprises rather than to the establishment of new firms. In the Kyrgyz Republic, the private sector contributes 70 percent of GDP. In Tajikistan, the poorest of the CIS-7, 98 percent of trade is in private hands, while 80 percent of industrial production is private. Even in Uzbekistan, the lagging reformer in the CIS-7, the private sector produces more than half of official GDP. Yet despite the change in ownership, there has been little impetus to grow from the new private sector.

Stock of State Assets

A priori, it is difficult to see how the privatization of state assets could lead the way to high value-added private sector development. State enterprises, with their overhead of excessive staff, weak management carried over from earlier days, and stock of equipment that is fully depreciated, often have little economic value other than their buildings and land. Apart from utilities and agricultural companies, enterprises are often haphazard agglomerations of industries that are not necessarily based on economic efficiency. For example, Armenia had an extensive group of manufacturing plants serving the Soviet military-industrial complex. Many of these plants were not suited for conversion to peacetime production. Uzbekistan has a large aircraft manufacturing conglomerate that makes little sense now that its alliance with Soviet airplane production is no longer assured.

Insider Privatization

It is generally acknowledged that privatization led to better outcomes in the advanced reformers of Central and Eastern Europe and the Baltics than in the CIS-7 countries. In the advanced reformers, privatization often involved the sale of assets to strategic foreign investors, leading to improved performance. In contrast, the CIS-7 countries, small and remote from important industrial markets, with little of intrinsic value, attracted few external investors. Privatization was

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11 International Monetary Fund and World Bank (2001).
based on either voucher programs or generous concessions to insiders (workers and managers). In Tajikistan, for instance, a recent private sector survey shows that 100 of the 140 privatized large and medium-sized state enterprises were insider-owned and -controlled. In Armenia, for a sample of 145 large joint-stock companies in 1999, two to three of the largest shareholders held about 70 percent of company stock. And in almost all cases, these shareholders were insiders.

**Firm-Level Performance**

Not surprisingly, then, improvement in economic performance appears to be weakly correlated with ownership structure in the CIS-7 countries. Data on performance for the 100 largest industrial enterprises in Armenia for 1997 and 1998 show an overall decline in output, employment, and number of firms, irrespective of ownership structure. While 64 enterprises were profitable in 1997 (contributing to 71 percent of industrial output), only 30 enterprises were left in 1999 (contributing to 33 percent). Another study of 50 medium-sized and large private enterprises in Armenia noted that only 3 had generated any new investment. For most of the others, the prognosis was continuing decline and ultimate bankruptcy. In Tajikistan, recent evidence shows that large state-owned and privatized firms still operate as large, horizontally and vertically integrated units.

Improvements in economic performance seem to have less to do with the ownership structure than with the level of competition. A 1998 survey of 92 state- and privately owned firms in Georgia concluded that it was not private ownership but rather competition and financial discipline that was associated with the restructuring of enterprises.

**Continuing State Interference in Private Sector Activity**

The state is involved in the economies of all the CIS-7 countries, though the intensity is greater in the Central Asian countries than in the Caucasus countries or Moldova. Moreover, while ownership nominally may have changed, enterprises have often remained effectively under the umbrella of the state. In Moldova's voucher-based privatizations, for instance, the population invested their vouchers in heavily indebted enterprises, only to become legal owners of firms that were effectively controlled by their creditors. Owing to tax and energy arrears, the creditor was often the state.

**Continuing State Control over Land and Agriculture**

Even though land has been privatized, governments still play an active role in agriculture. In Uzbekistan, the sector is largely state controlled, with the govern-
ment setting targets for the production of cotton and grain and setting the local currency price for these crops. Control of cotton exports, which account for up to a third of exports, gives the government access to hard currency, which it uses to finance its industrial policy and service the foreign debt.\(^{18}\) In Tajikistan, about 40 percent of the arable land remains under the control of unreformed state farms.\(^{19}\) The government privatized the low value-added agricultural areas and kept much of the high value-added areas under state control. In mountainous areas where cotton is not grown and there is no irrigation, land from the former state and collective farms (about 30 percent of arable land) was distributed fairly equally among private farmers.

**Control by Trade Associations**

There is often little distinction between the role of government as policymaker and regulator, on the one hand, and business shareholder (owner) and manager, on the other. In Uzbekistan, for instance, “trade associations,” which were established by presidential decrees, control key sectors. Although the functions of the associations vary, they include lobbying to advance member interests; rationalizing output, pricing, investment, distribution, input, and foreign exchange allocation decisions; and operating as de facto holding companies. Some are thinly veiled replicas of the line ministries during Soviet times. Most associations are not in favor of privatization of their members, and they act to obstruct any movement in that direction. While association membership is not mandatory, in practice virtually every firm operating (or seeking to operate) within a given sector becomes a member of the sector’s trade association.\(^{20}\)

**Shareholders’ Voting Rights Not Respected**

State interference can take more subtle forms. When the state continues to hold shares in a company, legal provisions on joint stock companies often ensure that neither minority investors nor strategic investors have the ability to influence company management or to exercise shareholder rights. In Uzbekistan, for instance, if the state owns any shares in a company—as it typically does in privatized enterprises—a shareholders’ meeting is not valid if the state representative is not present. Furthermore, for 15 days after the shareholders’ meeting, the government’s agent can defer decisions made at the meeting if they “contradict the interests of the state.” In companies in which the state holds 25 percent or more of the shares, the State Property Committee can increase the amount of the charter capital unilaterally, diluting the interests of the shareholders.\(^{21}\) Other examples of state interference in the business sector abound (see Box 9.2).

\(^{18}\) EBRD (2001).
\(^{19}\) World Bank (2001a).
\(^{20}\) Broadman (2000).
\(^{21}\) Rutledge (2000a).
Box 9.2. How the State Maintains Its Economic Influence

- In Uzbekistan, a private furniture company, with the state as minority shareholder, sustains its activities through state orders, allowing the company to cross-subsidize the goods delivered to the private market.
- In the Kyrgyz Republic, a medium-sized private radiator company distributes all its profits (through dividends) to the 1,300 shareholders (former and current employees), remaining effectively a socially owned company.
- In Tajikistan, a private silk processing company has to sign yearly contracts with the local and central governments to purchase silk cocoons from producers in the regions, remaining dependent on the state for the supply of inputs. Silk (and cotton) ginneries operate as local monopolies or oligopolies. Local authorities prevent interregional trade and protect local companies, which are sources of taxes and other payments.
- In Azerbaijan, the foreign private oil company is "strongly encouraged" to work with Azeri-controlled private (or public) downstream companies.

High Cost of Becoming Prominent

State interference in the business sector can impede formal private sector growth when the incentive structure encourages businesses to remain small. Anecdotal evidence suggests that profitable businesses choose either to expand unofficially or to change the nature of their operations to remain unnoticed. When businesses expand unofficially, the detrimental effect on growth may be small, even though the transaction costs to circumvent the restrictions are high. In Uzbekistan, businesses adopt double bookkeeping practices to avoid “excessive” tax payments and circumvent bank restrictions and oppressive inspection controls. In Azerbaijan, banks allocate credit on the basis of both official and unofficial accounts. These and similar practices are integrated into the normal functioning of the business sector and do not preclude business growth as such. However, when businesses change the nature of their operations to remain unnoticed, the effect on growth can be substantial. In Azerbaijan, an entrepreneur borrowed money to open a small ice-cream business. As the business grew and he feared attracting attention, he reduced his business activity, reimbursed the loan, and borrowed money to open a shoe shop in the second year. The third year, he closed the shoe shop and started a third business.

Neglect of Property Rights and Corporate Governance

In Western economies, shareholders and their representatives on the board of directors serve as a check on company managers. That is often not the case in the CIS-7 countries. Georgia’s Securities Industry Association estimates that as many as a third of reporting companies fail to hold required shareholders’ meetings for such important issues as making large transfers of assets or amending the company charter. As many as half the traded companies are in violation of the basic corporate governance provisions of the company law.
Often, the laws do not prevent company managers from enriching themselves at the expense of shareholders and other stakeholders, including creditors, tax collectors, employees, and customers. In Uzbekistan, as much as half of a company's assets can be sold without shareholder approval, with just the agreement of the supervisory council. Even worse, Tajikistan does not require shareholder approval of sales of even 100 percent of company assets. In Armenia, the Joint Stock Company Law allows assets of up to half the book value of the company's assets to be sold or transferred to other parties solely on the decision of the company board.

Weak corporate governance also is seen in the lack of transparency of joint stock companies and even financial institutions, including banks, leasing companies, and insurance companies. Reliable information on the ownership and control of companies and financial institutions is unavailable to shareholders, creditors, and regulators. Financial-industrial groups (based on clan affiliations or other relationships) provide capital for member companies within the group but almost no financing for enterprises not owned and controlled by the groups. Access to capital remains a major stumbling block for growth of the private sector.

**Trapped in a Low-Level Equilibrium**

Despite reforms to create a favorable investment climate, the environment for economic activity in the CIS-7 countries remains uncertain and unpredictable, trapped in a low-level equilibrium. Uncertainty undermines managerial incentives for maximizing enterprise value. This level of uncertainty is shown in the decisions of all agents in the economy. Governments focus on short-term policy remedies and lack a strategic vision, because of low political turnover (Moldova, Uzbekistan), little political change (the Kyrgyz Republic), or prolonged war or conflict (Armenia, Azerbaijan, Georgia, Tajikistan). Foreign investors delay making irreversible commitments, focusing instead on developing distribution networks or demanding government guarantees or special business enclaves. And local businesses and banks emphasize short-term objectives, from blocking advances in the reform process that threaten to eliminate special advantages and market distortions that benefit them to stripping a firm's assets when insiders become new owners.

**Public Sector Deficiencies Undermine Private Sector Development**

In the CIS-7 countries, the public sector directly undermines private sector development through various channels (Table 9.2):

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22 Rutledge (2000a).

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Nancy Vandycke
### Table 9.2. Private Sector Effects of Public Sector Deficiencies in the CIS-7 Countries

<table>
<thead>
<tr>
<th>Public Sector Deficiency</th>
<th>Major Problems</th>
<th>Private Sector Consequence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weaknesses of competition monitoring, regulation, and enforcement institutions</td>
<td>Inability to prevent anticompetitive behavior; administrative corruption; unstable regulatory environment</td>
<td>Problems of new entry; bribe taxes</td>
</tr>
<tr>
<td>Judicial system</td>
<td>Weak enforcement; absence of judicial specialization</td>
<td>High transaction costs; overreliance on court system</td>
</tr>
<tr>
<td>Weaknesses of fiscal transparency</td>
<td>Poorly clarified division of responsibilities between branches and levels of government; off-budget expenditures and hidden expenses</td>
<td>Unstable fiscal environment for business</td>
</tr>
<tr>
<td>Tax environment</td>
<td>Limited capacity of tax administrations; toleration of arrears; unevenly applied tax rules; gap between effective and statutory tax rate</td>
<td>Multiple levels of taxation; underground economy</td>
</tr>
<tr>
<td>Weaknesses of quasi-fiscal activities</td>
<td>Extensive system of hidden subsidies to loss-making enterprises</td>
<td>Poor financial discipline; exit barriers</td>
</tr>
</tbody>
</table>

Source: Desai (2002).
- Involvement in purely commercial activities. CIS-7 governments have entered into joint ventures with foreign and domestic companies, and they still control a large share of both the enterprise and the financial sector. In Uzbekistan, for instance, private banks have to compete against state-owned banks that can lend at below-market rates because they have access to cheap budgetary resources.

- Predatory tax enforcement. Tax enforcement tends to be predatory, with forced collection of frozen bank accounts and property seizures. Yet collection rates suffer and taxation is unevenly applied, with the most efficient firms bearing the greatest burden. Some private firms pay as much as 50 to 60 percent of their net income in taxes, while certain firms—especially former state-owned enterprises—are permitted to accumulate large tax arrears.\(^{26}\)

- Investment-based tax incentives. Tax incentives intended to attract investment have instead undermined the investment climate and retarded progress in making the tax code more efficient. Tax holidays and other incentives—most based on short-term assessments of the trade-offs between revenue collection and investment promotion—are frequently reversed, creating enormous uncertainty. In Azerbaijan, almost all tax privileges given to foreign investors were suddenly revoked by presidential decree. Such frequent changes have eroded the credibility of the tax regime rather than promoting investment and employment.

- Multiple licensing requirements. Entrepreneurs have to obtain multiple, sector-specific licenses to carry out their activities in the CIS-7 countries. These requirements, a holdover from the days of state control, often have no relevance in a market economy. They provide opportunities for corruption and consume entrepreneurs' time and money, throwing the business sector into a vicious circle of state control and rent seeking.

### Frequent and Piecemeal Changes in Laws and Regulations Feed Bureaucratic Discretion

While many laws supporting a market economy are now in place, the regulatory framework for business (licensing, basic operation, taxation, contracting) is uneven, contradictory, overlapping, and frequently amended. Ordinary legislation commonly is "supplemented" by executive decrees—often thinly disguised attempts by the executive branch to sidestep parliamentary laws in order to protect favored constituents or regions. Rule by decree also lacks accountability, since executive decrees—unlike laws—are not subject to legislative scrutiny or administrative review.

In Tajikistan, security rights over movable and immovable assets are governed primarily by the Civil Code of June 1999. However, the Mortgage Law of June

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\(^{26}\) Desai (2002).
1994, as amended in 1995 and 1998, also regulates security rights over movable and immovable property. Since the two laws cover much the same subject matter, there is great uncertainty about which provisions are applicable.27

Frequent and piecemeal changes in laws and regulations allow for discretionary and discriminatory interpretation by public officials. This situation has enabled officials to use the regulatory apparatus to channel benefits to favored groups (for example, regulatory forbearance is often applied to joint-stock companies in which the government participates).28 Intrusive inspections by tax authorities, police, prosecutors, and other officials are common, and onerous regulations and licensing requirements encourage rent seeking by public employees. Thus, the unstable and inconsistent regulatory framework leads to corruption at all administrative levels.

**Lack of Incentives to Operate Formally Weakens Demand for a Better Investment Climate**

The large informal sectors in the CIS-7 countries are not just a sign of lax enforcement of tax laws. They also reflect an underlying problem in the social framework for private sector development: the absence of benefits from joining the formal sector. By choosing to stay informal, firms are saying that the costs of formalizing outweigh the expected benefits.

In the CIS-7 countries, the benefits of becoming formal are uncertain at best. In a Western developed economy, formal firms, as legal entities, have greater access to credit, can conduct business in a predictable manner with other legal entities, particularly in matters of contract enforcement; and can enjoy the advantages of modern limited liability forms, such as incorporation. In the CIS-7 countries, however, access to credit does not depend on legal institutions such as collateral, but rather on the lender’s firsthand knowledge of the applicant, while contract enforcement is weak at best.29

Under these conditions, the demand from businesses for a better investment climate is likely to be minimal. In the advanced reformers of Central and Eastern Europe and the Baltics, demand for market-based institutions, including a better investment climate, and protection of property rights and the rule of law originated with the businesses themselves. Their objective has been to increase the benefits and reduce the costs of doing business. Absent this demand from businesses, improvements in the business environment in the CIS-7 countries are likely to be supply-driven only.

The indirect social costs of a growing informal sector are large. Formal sector companies must compete against companies that operate informally, paying no import tariffs or taxes. A survey in Tajikistan shows that only 59 percent of companies make full disclosure of their revenues to tax authorities.30 Informal sector activity thus results in lower tax collection, reducing the ability of the public sector

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27 Holden (2002).
28 Desai (2002).
29 Holden (2002).
to perform its core functions. Another consequence is that formal sector companies must deal with the delays and high costs associated with inadequate customs administration. The financial sector is also underdeveloped as a result of extensive informal sector activity. Financial development in the CIS-7 countries is substantially below the average for the poorest group of countries. In 2000, the ratio of private sector credit to GDP in five of the CIS-7 countries was less than 10 percent of GDP—about a quarter that in countries with similar per capita GDP and less than 10 percent of the average in high-income countries (Figure 9.3).

Evidence from a recent survey by the Microfinance Centre indicates that the informal sector in Eastern Europe and Central Asia, including the CIS-7 countries, is financed mostly by nongovernment organizations (NGOs). In general, NGOs escape the supervision of banking authorities and the red tape and political influence of governments as a result of their legal status as international organizations operating under intergovernment agreements.\(^{31}\)

**Focus on Domestic Rather Than Regional Policies**

The CIS-7 countries remain inward-focused even though regional issues are pressing: border conflicts, spillover risks from the war in Afghanistan and regional conflicts, and growth constraints owing to the small size of domestic markets. Consider the Caucasus, including Turkey. It offers a potential market of 110 million inhabitants. Yet each Caucasus country produces and supplies goods and services mainly to its own internal market. A critical issue is the lack of incentives for large, resource-endowed countries, such as Kazakhstan and Uzbekistan, to integrate with smaller, poorer countries, such as the Kyrgyz Republic and Tajikistan.

Within the CIS as a whole, economic and political relations generally have been established on a bilateral basis rather than CIS-wide. Many CIS countries have been unwilling to strengthen their links with post-Soviet Russia. Consequently, the CIS has never evolved into a free trade area. Some nations have formed alliances without Russia, while others have strengthened their relations with Russia (see Chapter 10). However, while international integration based on free trade can provide significant potential for catch-up growth, it exposes previously sheltered economies to new types of risk, arising from cyclical variations in external demand and private capital flows, that must be managed effectively.

**Recommendations**

More than a decade after the start of the transition, the CIS-7 countries continue to face greater challenges than the countries in Central and Eastern Europe and the Baltics. Some lessons have emerged that can provide broad guidance for improving private sector development.\(^{32}\)

\(^{31}\) Forster and Pytkowska (2002).

\(^{32}\) Lieberman and others (2002).
Figure 9.3. Average Credit to the Private Sector in Five of the CIS-7 Countries Compared with Other Countries, by Income Group

Sources: International Financial Statistics Database and World Development Indicators Database.

Note: Credit to the private sector from deposit money banks and other financial institutions. High income countries had GDP per capita in 1999 of more than US$10,000; upper middle income countries had GDP per capita of between US$3,000 and US$10,000; lower middle income countries had GDP per capita of between US$7,000 and US$3,000; low income countries had GDP per capita of less than US$1,000. Data for Uzbekistan and Tajikistan were unavailable.

Create an Environment Conducive to Private Sector Development

Evidence shows that the overall business environment is the most important determinant of enterprise competitiveness and growth. As a first step, registration, licensing, and inspections that unduly restrict business operations and encourage businesses to remain underground should be eliminated. Interventions to support the private sector should be limited and well designed. For instance, the direct provision of credit to small enterprises through state funds tends to substitute for markets rather than dealing with the underlying causes of underdeveloped markets.
Promote Entrepreneurship

The private sector in the CIS-7 countries has few truly entrepreneurial firms. The challenge is to develop a class of entrepreneurs to improve the quality of the private sector. Institutions that incubate and support entrepreneurial efforts should be supported—including microfinance and other lending institutions, both banks and nonbank financial institutions. Extensive efforts should be made to train managers and senior staff and to expose them to the way businesses operate under real market conditions. Increasingly, such opportunities exist in Central and Eastern Europe in countries and firms that have been through the transition and now operate under market conditions.

Find Ways to Support Greenfield Investments

International financial institutions such as the European Bank for Reconstruction and Development and the International Finance Corporation could support efforts to improve the basic infrastructure in CIS-7 countries. But so far, due diligence has kept them out of many activities in these countries, because so many locally owned enterprises have poor corporate governance standards, and many potential sponsors could not pass the screening and credit requirements. Alternative mechanisms, such as guarantee programs, should be explored to support greenfield investments.

Prepare Carefully for Privatization

Privatizations often have been pushed through the reform agenda with the hope that the result will be efficient, well-governed private enterprises. This result has not been achieved in many cases. A more gradual approach is needed that includes restructuring monopoly enterprises to provide for new entry and competition, as appropriate; corporatizing some state enterprises; restructuring and improving corporate governance prior to sale; using contracting out and concessions more extensively for infrastructure and utility sales when strategic private owners cannot be found; and searching for potential buyers outside traditional Western markets. For utilities and natural resource companies, adequate capacity and regulatory frameworks should be developed before sale. To compensate for deficiencies in basic infrastructure, donors may need to consider greater support for greenfield investments and using guarantees more extensively to attract private investors.

Encourage “Nontraditional” Investors

Foreign investors from Western countries had a natural financial and strategic interest in Central and Eastern Europe and the Baltics because of their proximity. Such interest in investing in the CIS-7 countries is unlikely. Foreign investment should be sought from other, more closely aligned markets. Investors from China, India, Indonesia, the Republic of Korea, Malaysia, Pakistan, Turkey, and Russia have the necessary capital and business sophistication to deal with the complex, difficult markets of the CIS-7 countries. Attracting such investors
requires improving the business environment and moving toward greater regional integration to increase the potential market for investment.

**Establish and Enforce a Consistent Legal Framework**

Complaints about the inefficient regulation of business in the CIS-7 countries often focus on the legal system and on how well laws reflect the legal systems of industrial countries. Attention should focus instead on determining how well laws and regulations achieve desirable economic ends in the CIS-7 countries, which have very different economic and institutional constraints than advanced industrial economies. Analysts rarely address nuts and bolts questions such as, What is an efficient regulatory system for hotels? For restaurants? For barbershops? Most transition countries have ended up with a patchwork of legal reforms and little real judicial capacity.

To attract investors, to enable the growth of enterprises, and to bring firms in out of the shadow economy, the private sector strategy needs to be anchored in a sound legal framework that addresses a variety of legal needs—company law, collateral laws, security laws, bankruptcy laws, and antimonopoly laws. The legal system needs to respect shareholder and creditor rights and other contractual rights, and judicial enforcement must be competent and noncorrupt. To move toward a consistent system of laws that matter for operating a business, a careful line-by-line analysis of general business regulation should be undertaken, identifying which laws should be revised and when.

**Focus on Regional Integration**

Regional integration efforts are important in a context in which the market size of some of the CIS-7 countries is less than 4 million people. Growth will require businesses to sell beyond domestic markets. The advanced reformers of Central and Eastern Europe are accelerating the pace of reforms because they have the prospect of joining the European Union. It is less clear what the integrating factor might be for this region of the world. The CIS-7 countries are a diverse group, with no apparent integrating factor. The international financial institutions could help to encourage mutually beneficial cross-border efforts.

**References**


10
The Integration of Low-Income CIS-7 Countries into the World Trading System

Constantine Michalopoulos*

More effective integration into the world trading system is part of the transition from central planning to markets. Based on market forces, international trade promotes more efficient resource allocation and increased productivity and growth—necessary conditions for sustainable poverty alleviation. The low-income CIS-7 countries started the transition with different resource endowments but with similar protectionist policies that isolated their economies from the rest of the world and created large distortions in prices and resource allocation.

In the decade since independence, the CIS-7 countries have introduced market-oriented reforms, including trade reforms. Many have established very liberal trade policy regimes, and three—Georgia, the Kyrgyz Republic, and Moldova—have become members of the World Trade Organization (WTO). Yet, their overall trade performance lags by comparison with other CIS and Central and Eastern European countries. So far, international trade has failed to provide the boost to productivity, growth, and poverty reduction that had been anticipated.

This study looks at why and outlines a strategy to enable the CIS-7 countries to obtain greater benefits from international trade. The strategy includes a mix of domestic policy reform and regional cooperation, and the focus is as much on issues of trade policy as on other aspects of domestic market reform and capacity building. Frequently, the most important reforms would strengthen trade-related capacity and reduce unnecessary constraints. In many areas, the international community can play a supporting role.

* This chapter is based in part on interviews conducted by Wojciech Paczynski (in the Caucasus and Moldova) and Carolina Revenco (in Central Asia) in early 2002. Their contributions are gratefully acknowledged. The author also thanks Carolina Revenco for assistance in preparing the database, statistical analysis, and tables used in the study and her comments on the Moldovan economy; Martin Keiser and David Cooper of the European Bank for Reconstruction and Development for inputs on telecommunications issues in Central Asia; Ataman Aksoy, Nina Budina, and Evgeny Poljakov of the World Bank and Marco Pani, Clinton Shillies, and Thomas Richardson of the International Monetary Fund for comments on earlier drafts; Armanda Carcani of the World Bank for assistance with processing and formatting; and Saumya Mitra of the World Bank for overall direction and support.
Economic Context and Trade Performance

All of the CIS-7 countries are among the poorest countries in the CIS and need to take urgent steps to stimulate growth and reduce poverty. All face similar challenges in improving governance, maintaining macroeconomic stability, addressing debt issues, improving the climate for private investment, and providing adequate health and education services to their people. In terms of their positioning in international trade, however, six of the seven countries are very similar, but Uzbekistan is different.

Armenia, Azerbaijan, Georgia, the Kyrgyz Republic, Moldova, and Tajikistan are small in both population and aggregate GDP, ranging from Moldova, at 3.6 million people and a GDP of $1 billion, to Azerbaijan, at 8.0 million people and a GDP of $5 billion. For such small economies, trade is a large component of GDP and an important determinant of growth in income and output. These six countries have further similarities.

- All have relatively liberal formal trade regimes.
- With the exception of the Kyrgyz Republic, all have been involved in some kind of conflict, either international or domestic (see Chapter 8), which adversely affects normal international trade relationships.
- With the exception of Georgia, they are landlocked countries (although Azerbaijan is on the inland Caspian Sea), which means that their trade depends on transit through third countries and raises the issue of collaboration on points related to transport.

Uzbekistan, however, is a much larger country, with 25 million people and a GDP of close to $8 billion. It has a very protected trade regime; it has not had any significant conflicts, with the exception of its border skirmishes with Afghanistan; and, though also landlocked, it has had fewer problems of transshipment than many of the others.

The three Caucasus countries—Armenia, Azerbaijan, and Georgia—are a distinct group whose trade links have been severely distorted by the Armenia-Azerbaijan conflict. Their other regional trade partners are primarily Iran, Russia, and Turkey. The three Central Asian countries—the Kyrgyz Republic, Tajikistan, and Uzbekistan—have trade links with each other as well as with Kazakhstan. Their trade links outside the immediate region are with Russia and China. Moldova, not truly part of any distinct regional group, has ties both to the Balkans and to other CIS countries, primarily Russia and Ukraine. There are few actual trade links among the three groups and limited natural potential for trade. Russia is the most important regional trading partner common to all seven countries.

General Trends in Trade Performance

The export performance of the CIS-7 countries in the second half of the 1990s was weak. There has been little change in the composition of exports. Major new export products have tended to be in capital-intensive extractive industries.
which hold little promise for increasing employment and reducing poverty. There has been a major reorientation of trade away from the CIS countries and toward developed economies, especially the European Union, but Russia continues to be the largest trading partner for almost all the CIS-7 countries.

There are also important trade links among the countries in Central Asia, but much less so in the Caucasus, mainly because of the Armenia-Azerbaijan conflict. As a consequence, there is clearly a basis for increased regional trade in both groups of countries: in Central Asia, to intensify what already exists and in the Caucasus, to develop natural trading partnerships if a political solution to the conflict is found. Moldova has regional partners in both the CIS and the Balkans, with the Balkans holding greater promise as trading partners.

**Changes in Trade**

The poor quality of the trade data for the CIS-7 countries, especially Azerbaijan, Georgia, Moldova, Tajikistan, and Uzbekistan, makes precise determinations about international trade difficult. There is a large amount of unregistered merchandise trade, misrepresentation of customs invoices, and other weaknesses in the operations of customs, resulting in significant discrepancies between data based on customs declarations and data derived from financial statistics, and between official statistics based on country reports and data derived from trade partners’ data.1

Given these substantial caveats, information on the export and import of goods and services in the CIS-7 for 1995–2000 suggests that merchandise exports declined in absolute terms in Armenia (through 1999), Moldova, and Uzbekistan, and grew in the other countries (Table 10.1). Growth was substantial in Azerbaijan and Georgia, and modest to negligible in the Kyrgyz Republic and Tajikistan. In Azerbaijan, growth was based on a large increase in oil exports. Georgia’s growth may not all be real: exports increased about 30 percent in 2000, in part due to a rebound in the Russian market, but appear not to have been sustained in 2001. Changes in the method of calculation throughout the period, and a possible decline in underreporting shed some doubt on the reliability of these findings and the sustainability of this export performance.

In countries for which Russia is an important market (Armenia, Moldova, Tajikistan, and Uzbekistan) the sharp contraction of the Russian market in 1998 led to a decline in exports from which they have not fully recovered. Merchandise exports for Moldova and Uzbekistan were lower in 2000 than they had been five years earlier.

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1 Uzbekistan does not formally report, or readily share, trade data; for what it does report, it uses a unique product and country classification that is different from that employed in standard international classifications. The analysis in this study uses International Monetary Fund *International Financial Statistics* data in the discussion of overall trends; the United Nations Statistics Division *Direction of Trade Statistics* data in the analysis of the geographical orientation of trade; and COMTRADE data, which are based on national statistics, in the discussion of the product composition of merchandise trade.
Table 10.1. Average Annual Growth of Exports and Imports, 1995-2000
(In percent)

<table>
<thead>
<tr>
<th>Item</th>
<th>Armenia¹</th>
<th>Azerbaijan</th>
<th>Georgia²</th>
<th>Kyrgyz Republic</th>
<th>Moldova</th>
<th>Tajikistan³</th>
<th>Uzbekistan</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Merchandise exports</td>
<td>-2.3</td>
<td>24.9</td>
<td>6.8</td>
<td>4.6</td>
<td>-8.4</td>
<td>0.9</td>
<td>-3.3</td>
<td>1.9</td>
</tr>
<tr>
<td>Service exports</td>
<td>47.2</td>
<td>8.6</td>
<td>1.3</td>
<td>9.7</td>
<td>2.4</td>
<td>n.a.</td>
<td>11.8</td>
<td>8.7</td>
</tr>
<tr>
<td>Total</td>
<td>6.3</td>
<td>22.0</td>
<td>5.0</td>
<td>5.0</td>
<td>-6.3</td>
<td>2.3</td>
<td>-1.9</td>
<td>2.7</td>
</tr>
<tr>
<td>Merchandise imports</td>
<td>1.7</td>
<td>9.3</td>
<td>-5.8</td>
<td>-1.1</td>
<td>-0.7</td>
<td>-3.6</td>
<td>-5.5</td>
<td>-1.5</td>
</tr>
<tr>
<td>Service imports</td>
<td>39.7</td>
<td>9.7</td>
<td>-4.8</td>
<td>-5.2</td>
<td>0.9</td>
<td>n.a.</td>
<td>0.5</td>
<td>3.3</td>
</tr>
<tr>
<td>Total</td>
<td>6.1</td>
<td>9.4</td>
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<td>-2.2</td>
<td>-0.4</td>
<td>-1.8</td>
<td>-4.6</td>
<td>-0.6</td>
</tr>
</tbody>
</table>

¹ 1999 data are used instead of 2000.
² 1997 data are used instead of 1995.
³ Growth in services is not calculated due to lack of 1995 data. It is taken to be zero in calculating total growth in services.
Overall for the CIS-7 countries, the growth of merchandise exports averaged 1.9 percent a year, compared with 4.9 percent for Russia, 5.7 percent for the rest of the CIS, and almost double that for the Baltics (Table 10.2). This performance is worse than that of the least-developed countries, a group of 49 low-income developing countries for which the international community has planned measures to enhance their trade prospects.

Imports also declined after 1995 in all countries except Armenia and Azerbaijan. In Azerbaijan, increased imports reflect the large inflows of foreign direct investment. The decline in the other countries reflects both the decrease in exports, the leveling-off of foreign official flows, and the inability to attract substantial amounts of private capital.

Trade in services is growing in importance in transition economies, which had stifled growth of the sector under central planning. The limited information available suggests significant growth in exports and imports of commercial services for most countries, albeit from very low levels (see Table 10.1).

**Direction of Trade**

Since 1995, all the CIS-7 countries except Tajikistan have reoriented their exports away from CIS markets and primarily toward the markets of developed countries. By 2000, 62 percent of total CIS-7 exports were going to non-CIS countries, up from 47 percent in 1995 (Table 10.3). Imports have followed a similar but weaker trend.

Among non-CIS trading partners, the European Union has emerged as the most important, accounting for 35 percent of exports and 23 percent of imports. Turkey is also emerging as an important supplier to the region. While Russia’s share of trade with the CIS-7 countries is declining, it is still the largest single market and source of imports for all but Azerbaijan.

Regional trade, i.e., trade among the three Central Asian countries or among the three Caucasus countries, is far more important for the former group than for the latter. In the Central Asian countries, regional trade accounts for 18 percent of total exports and 14 percent of imports. Adding Kazakhstan to the group brings regional trade to almost 20 percent of the four countries’ total trade. Trade among the Caucasus countries accounts for 5 percent of exports and 4 percent of imports. Greatly reducing the total is the almost complete absence of trade between Armenia and Azerbaijan. Moldova’s regional trade partners include Belarus and Ukraine in the CIS, and Romania and some of the Balkan countries. Trade with both sets of regional partners is declining, while that with the European Union is rising (see Table 10.3).

**Composition of Merchandise Trade**

**Exports**

Available data on the product composition of merchandise trade suggest little change in the basic structure of exports of the CIS-7 countries during...
Table 10.2. Annual Average Growth of Exports and Imports of CIS-7 and Selected Countries and Country Groups, 1995-2000
(In percent)

<table>
<thead>
<tr>
<th>Item</th>
<th>CIS-7</th>
<th>Russian Federation</th>
<th>Other CIS</th>
<th>Baltic Countries</th>
<th>Czech Republic</th>
<th>Hungary</th>
<th>Poland</th>
<th>Slovakia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Merchandise exports</td>
<td>1.9</td>
<td>4.9</td>
<td>5.7</td>
<td>10.3</td>
<td>6.2</td>
<td>14.5</td>
<td>7.5</td>
<td>6.7</td>
</tr>
<tr>
<td>Service exports</td>
<td>8.7</td>
<td>-1.8</td>
<td>9.0</td>
<td>12.6</td>
<td>0.0</td>
<td>3.8</td>
<td>-0.5</td>
<td>-1.2</td>
</tr>
<tr>
<td>Total</td>
<td>2.7</td>
<td>4.3</td>
<td>6.2</td>
<td>10.9</td>
<td>4.9</td>
<td>11.9</td>
<td>5.3</td>
<td>5.2</td>
</tr>
<tr>
<td>Merchandise imports</td>
<td>-1.5</td>
<td>-6.4</td>
<td>1.3</td>
<td>9.9</td>
<td>5.0</td>
<td>12.4</td>
<td>12.6</td>
<td>7.7</td>
</tr>
<tr>
<td>Service imports</td>
<td>3.3</td>
<td>-3.0</td>
<td>19.2</td>
<td>14.2</td>
<td>2.1</td>
<td>4.4</td>
<td>4.7</td>
<td>-0.4</td>
</tr>
<tr>
<td>Total</td>
<td>-0.6</td>
<td>-5.6</td>
<td>3.3</td>
<td>10.5</td>
<td>4.5</td>
<td>11.1</td>
<td>11.1</td>
<td>6.5</td>
</tr>
</tbody>
</table>


1 Belarus, Kazakhstan, and Ukraine. Turkmenistan is not included because trade data are not available.
1995–2000, with two exceptions. Azerbaijan became even more dependent on oil exports, which reached 85 percent of exports in 2000 and was up from 69 percent in 1995. The Kyrgyz Republic has increased its exports of gold, which account for about 40 percent of exports. In both cases, especially for the Kyrgyz Republic, known reserves will run out in a few years, giving the countries a limited horizon during which to develop a more diversified export structure. For the rest of the CIS-7 countries, traditional commodities account for the overwhelming proportion of exports (see Box 10.1).

While a few sectors have shown some promise, such as prepared foodstuffs in Armenia and textiles in Moldova, the increased dependence on capital-intensive extractive industries is likely to provide little direct stimulus to employment or increased incomes for the poor. Developing country experience suggests that raw material and primary product exporters have fared worse in recent periods, in terms of both export and GNP growth, than more diversified exporters. The challenge is to use the increased foreign exchange and tax revenues from the expansion of resource-based exports to spur development of other sectors and to assist the poor.

Despite an abundance of labor—much of it highly educated and unemployed—labor-intensive exports did not grow during 1995–2000 in most of the CIS-7 countries, with Armenia as an exception. Several factors help to explain why. Overall economic restructuring has been slow, labor-intensive activities have been heavily taxed, governments have continued to intervene in business activities, and access to developed country markets for labor-intensive exports was less favorable for the CIS-7 countries than for their competitors. The net effect has been that the export sector has not contributed to poverty reduction as it did in successful Asian exporters like China. This makes the challenge of reducing poverty in these countries even greater.

Imports
Imports tend to be more diversified, and their composition varies from country to country. In most, machinery and transport equipment account for a significant share of imports. Armenia, Georgia, the Kyrgyz Republic, and Moldova are heavily dependent on imports of oil and oil products. The three Caucasus countries import large amounts of food, and some countries import products that are subsequently reexported, such as diamonds (Armenia) and aluminum (Tajikistan).

Trade Policy
In exploring why export performance has been weak, the first place to look is trade policy—both the policies of trade partners, which affect market access, and the CIS-7 countries’ own trade and exchange rate policies, which affect incentives to produce for the domestic market or for export.
Table 10.3. Geographical Composition of Merchandise Trade, 1995–2000

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<tbody>
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<td>17</td>
<td>19</td>
<td>23</td>
<td>17</td>
<td>23</td>
</tr>
<tr>
<td>Other countries in the region ( ^3 )</td>
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<td>15</td>
<td>3</td>
<td>17</td>
<td>4</td>
<td>15</td>
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<td>0</td>
<td>6</td>
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<td>2</td>
<td>1</td>
<td>2</td>
<td>8</td>
<td>9</td>
</tr>
</tbody>
</table>

Source: IMF, Direction of Trade Statistics Yearbook, various issues.

1 For South Caucasus countries this includes Armenia, Azerbaijan, and Georgia; for Moldova it includes Ukraine and Belarus; and for Central Asia it includes the Kyrgyz Republic, Tajikistan, and Uzbekistan.

2 Canada, United States, Japan, Switzerland, Norway, and Australia.

3 Defined as China for Central Asian countries; Iran and Turkey for South Caucasus countries; member countries of the Stability Pact for South Eastern Europe (Albania, Bosnia and Herzegovina, Bulgaria, Croatia, FYR Macedonia, Romania, and FR Yugoslavia) for Moldova.
Box 10.1. Major Export Developments

**Armenia.** Imported diamonds are processed, polished, and subsequently reexported to Belgium, accounting for a third of exports. Metal scrap (old equipment and parts from deactivated Soviet-era industry) and prepared foodstuffs are other important exports. There are also electricity swaps with Iran.

**Azerbaijan.** The dominance of oil exports is increasing, reaching an estimated 90 percent of total exports in the first three quarters of 2001. Cotton, previously an important export crop, has virtually collapsed, accounting for only 1–2 percent of exports.

**Georgia.** Metal scrap (again from Soviet-era factories) and timber are important exports, the value of which is probably underestimated because export restrictions have forced trade in these products underground. Exports of wine, almost exclusively to CIS markets, are important and rising. Sales of other traditional exports, such as tea, have declined in value. Metal scrap is the only new substantial export product.

**Kyrgyz Republic.** Gold is by far the most important export product. Electricity exports to Kazakhstan and Uzbekistan are the second most important, although volatile, export (they are bartered for natural gas and coal). Cotton and tobacco account for about 10 percent of merchandise export earnings, and manufactured products destined for the Russian defense industry account for a declining portion. Once-important wool and textile exports have virtually disappeared.

**Moldova.** Agricultural products, mainly foodstuffs and wine destined for CIS markets (especially Russia), are the main exports. A new development is the increase in textile exports, based on subcontracting by foreign firms. Moldova's agricultural export base is at a disadvantage in EU markets because it faces heavy competition from established EU exporters and substantial protection. A further handicap is the inability to raise the food quality to meet EU standards. Transdniestria has substantial heavy industry, with total exports perhaps as high as 70 percent of those of Moldova. The largest exporter is probably Moldova Metallurgical Works, an efficient producer and exporter worldwide, owned by a Russian company registered in the United States.

**Tajikistan.** The main export product is aluminum, based on imported alumina and the heavy use of subsidized electricity generated by hydropower, a major resource of Tajikistan. The Soviet-era Tadaz aluminum plant accounts for 55 percent of exports and 29 percent of imports. It could not survive, however, without the heavy electricity subsidy. Other important exports are electric power and cotton fiber. No new export has been developed in recent years.

**Uzbekistan.** Gold, energy (oil and natural gas), and cotton fiber appear to be the main exports, although details are not readily available. Cotton fiber, the traditional export, seems to have been declining in importance in recent years. It is not clear what, if any, new export lines outside the resource-intensive sectors have been developed.
**Market Access**

Market access in the two major markets for CIS-7 products, the CIS and the non-CIS developed countries, does not seem to have been a major constraint in the expansion of exports during 1995–2000. Most of the CIS-7 countries have enjoyed preferential treatment in the CIS based on a number of free trade agreements. Despite some uncertainties, the problems of accessing the CIS markets have had less to do with formal trade barriers and more to do with the lack of transparency and weaknesses in the operation of market institutions, a problem that has plagued all CIS countries.

All of the CIS-7 countries enjoy most-favored-nation trade status in major non-CIS markets. Developed countries have extended most-favored-nation status on a voluntary basis while the CIS countries apply to the WTO. Those that have become WTO members (Armenia, Georgia, the Kyrgyz Republic, and Moldova) enjoy contractually guaranteed, unconditional, permanent most-favored-nation treatment from other members. Minerals and fuels, which constitute a significant portion of CIS-7 exports, are typically subject to very low, if any, tariffs in developed countries and virtually no quantitative restrictions.

The CIS-7 countries also benefit from the Generalized System of Preferences (GSP) operated by developed countries. However, GSP focuses on manufactured products and excludes common CIS-7 exports, such as textiles and clothing as well as sensitive temperate-climate agricultural products (such as wine), which are heavily protected. Indeed, preferences under the GSP put the CIS-7 countries on the lowest rung of the EU preference ladder, behind the least-developed countries; the African, Caribbean, and Pacific countries; the Balkans and other Central and Eastern European countries; and the Mediterranean countries. On balance, however, it is unclear whether these issues have played a significant role in limiting exports, especially of agricultural products, which, in Moldova’s case, are also constrained by quality and standards problems.

Finally, the CIS countries have been characterized as nonmarket economies by the developed countries, including the United States and the European Union and, as such, have been subjected to antidumping actions more frequently and to procedures that are even less transparent and more arbitrary than the antidumping procedures applied to other countries. The European Union has also used the nonmarket designation to impose selective safeguards and quantitative restraints on imports from the CIS countries. Most of these restraints and antidumping actions have been directed at iron and steel and nonferrous metal exports from Russia and Ukraine.2 A few of these actions have affected exports from Transdniestr and Tajikistan. Overall, however, antidumping actions have not been a major constraint on CIS-7 exports to developed country markets.

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Countries’ Own Trade and Exchange Rate Policies

Armenia, Georgia, the Kyrgyz Republic, and Moldova are WTO members, while Azerbaijan, Tajikistan, and Uzbekistan are at the early stages of accession. All except Uzbekistan have adopted relatively liberal trade policies, although countries still protect certain products. As a consequence, the formal trade regime is not a significant source of inefficiency. Except for Uzbekistan, none of the countries uses foreign exchange restrictions to control imports. Armenia, Georgia, the Kyrgyz Republic, and Moldova have met IMF Article VIII standards for exchange rates.

On a scale of one to ten, with ten the most restrictive, the IMF rates the overall trade policy stance of the six CIS countries, excluding Uzbekistan, as either one or two (Table 10.4). It rates Uzbekistan as a nine. Uzbekistan has a more restrictive tariff regime than the other countries, but the greatest distortions result from foreign exchange controls and state trading in major exports such as gold and cotton. Import contracts have to be registered in advance with the Ministry of Foreign Economic Relations. While the stated purpose is the protection of state interests and the interests of Uzbek enterprises, the protection of consumers against poor quality goods, rationalization of import flows, and the prevention of unwarranted outflows of international reserves, the actual purpose is to contain the balance of payments deficit and avoid depreciation of the official exchange rate.

Simple average tariffs range from a low of 5 percent in the Kyrgyz Republic to a high of 11 percent in Georgia and Tajikistan. Weighted-average tariffs tend to be lower still. The maximum tariff in most cases is 15–20 percent, although both Azerbaijan and Tajikistan have a few higher tariffs. Also, most countries have adopted relatively simple tariff structures with few tariff bands. The CIS-7 countries that are members of the WTO have eliminated nontariff barriers, except those related to health, safety, security, and environmental protection. Azerbaijan and Tajikistan also appear to have no significant formal nontariff barriers.

Uzbekistan’s average tariff in 2000 was relatively high at about 19 percent, and its maximum tariff was 100 percent (on used cars for which the maximum tariff in other sectors was 30 percent). Tariffs are changed frequently—six revisions in six years—and there are numerous exemptions (about 180). Tariffs are thus neither the main device for controlling imports nor a significant source of revenue. The main import control mechanism is the allocation of foreign exchange based on the degree of essentiality of the import. The import controls are coupled with a system of government procurement of cotton, which taxes producers by paying them substantially less than world prices, and state monopolies on exports of cotton, minerals, and precious metals.

Other than in Uzbekistan, there are also few controls on exports. Azerbaijan and Georgia ban exports of scrap metal, and Georgia and Moldova have licensing requirements or other controls on exports of some natural resource-based products, such as timber. None of these controls appears to affect the overall level of exports. In some cases, they just drive the exports underground. Tariffs
<table>
<thead>
<tr>
<th>Country</th>
<th>Simple average (percent)</th>
<th>Number of bands (percentage rate)</th>
<th>Nontariff Barriers</th>
<th>IMF Trade Policy Stance Rating¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armenia</td>
<td>4</td>
<td>2 (0-10)</td>
<td>Minimal</td>
<td>1</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>10</td>
<td>4 (0-15)</td>
<td>Minimal</td>
<td>2</td>
</tr>
<tr>
<td>Georgia</td>
<td>11</td>
<td>3 (0-12)</td>
<td>Minimal</td>
<td>2</td>
</tr>
<tr>
<td>Kyrgyz Republic</td>
<td>5</td>
<td>5 (0-20)</td>
<td>Minimal</td>
<td>1</td>
</tr>
<tr>
<td>Moldova</td>
<td>7</td>
<td>6 (0-15)</td>
<td>Minimal</td>
<td>1</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>8</td>
<td>6 (5-30)</td>
<td>Minimal</td>
<td>1</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>19</td>
<td>5 (max 100)</td>
<td>Extensive</td>
<td>9</td>
</tr>
</tbody>
</table>

Source: IMF.

¹ The scale is 1 to 10, with 10 the most restrictive.
on certain inputs, however, may put some exporters at a disadvantage because
systems for import tax (and value-added tax) rebates for exporters are subject to
delays and inefficiencies.

While all CIS-7 countries except Uzbekistan have liberal exchange rate
regimes, appreciation of the real exchange rate and fluctuating real rates have
adversely affected competitiveness and the development of new export industries
in some countries. The Russian crisis in 1998 forced a number of other coun-
tries, such as the Kyrgyz Republic and Moldova, to devalue after a period of real
exchange rate appreciation. In others, such as Armenia and Georgia, the overall
real exchange rate appears to have remained relatively constant during
1995-2000, although the Armenian dram has continued to appreciate relative to
the Russian ruble since 1998, which has contributed to the decline in the com-
petitiveness of Armenian products in that market. In Azerbaijan, rapidly expand-
ing oil exports have been accompanied by a depreciation of the exchange rate
since 1997, thus apparently avoiding the Dutch disease phenomenon, which
impedes the development of new export products and reduces the competi-
tiveness of others.

In summary, formal trade policy measures do not appear to be an important
factor undermining efficiency and export expansion in the CIS-7 countries,
except for Uzbekistan. For several of the countries, however, maintaining real
exchange rate stability has been a challenge, in part because of significant
exchange rate changes in some of their major markets, such as Russia and
Turkey. In Uzbekistan, improvements in trade and exchange rate policies would
make a significant contribution to more effective integration in the world trading
system. In the other six countries, however, trade and foreign exchange policies
are not behind the lackluster trade performance.

Regional Cooperation in Trade and Related Issues

The CIS countries participate in a large number of regional cooperation agree-
ments having a potential impact on trade. In most cases, implementation lags far
behind the ambitious formal commitments. Some of the agreements, such as the
CIS Free Trade area, are CIS-wide, while others, such as the Eurasian Economic
Community—comprised of Belarus, Kazakhstan, the Kyrgyz Republic, Russia,
and Tajikistan—involve smaller groups of CIS countries. Still others, such as the
Central Asian Cooperation Organization—comprising Kazakhstan, the Kyrgyz
Republic, Tajikistan, and Uzbekistan—have had a regional focus. One agree-
ment, the Transport Corridor Europe-Caucasus-Asia (TRACECA), is a project to
develop a transit corridor between Central Asia and the Caucasus that would
include all the CIS-7 countries.

Most of these arrangements aim to stimulate trade among the CIS countries
through trade preferences. Their effectiveness is in doubt, in part because they
have not been fully implemented. But even those that have been at least partly
implemented have failed to arrest the relative decline in intra-CIS trade.
The CIS Free Trade Agreement
This agreement involves a series of bilateral agreements between participating countries, each with different product coverage and rules of implementation, resulting in a complex network of agreements where coverage and rules change frequently and the impact is difficult to evaluate. Operating an effective free trade agreement requires implementing rules of origin, which are the responsibility of customs authorities. Given the extreme weakness in the customs institutions in all the countries, porous borders, and the complex character of the agreements, the payment of actual tariffs paid on any product to any authority in intra-CIS trade is a very chancy thing and has little to do with the formal agreements signed by the trading countries.

The Eurasian Economic Community
This is a free trade area in practice and is expected to become a customs union with a common external tariff by 2005. Its main driving force has been the desire of traditional exporters to Russia to maintain their preferences and links to the industrial structures in the other countries. Russia expects the other countries to move to its tariff, but progress in achieving this goal has been uneven: according to the most recent information available, tariffs have been harmonized on 95 percent of the items in the schedules for Russia and Belarus, 85 percent in the schedules for Russia and Kazakhstan, 60 percent in the schedules for Russia and Tajikistan, but only 14 percent in the schedules for Russia and the Kyrgyz Republic.

Moving to the much higher Russian tariff will result in substantial trade diversion and will tend to tie the other economies to the old technology of the Russian industrial structures. On the other hand, if these countries maintain a free trade agreement with Russia and with each other, they would enjoy the benefits of access to the Russian market without incurring the high costs of trade diversion that would result from a customs union with Russia that adopts the higher Russian tariff.

Participation in the Eurasian agreement and regional preferential trade arrangements has led to some confusion regarding their implications for WTO membership. A few years ago, countries in Central Asia were discussing the two options as though they were mutually exclusive alternatives: either become a WTO member or join the Eurasian Economic Community. In fact, when a country applies for WTO membership, it can be a member of any number of regional preferential arrangements, as long as they are compatible with WTO provisions regarding such arrangements, which is typically not difficult to achieve.

Members of the Eurasian Economic Community agreed to apply to join the WTO individually, which means they recognized that the Eurasian Economic Community is not a customs union (which requires a common external tariff) but a free trade area where each member has its own tariff structure on imports from the rest of the world. This was clearly understood during the accession negotiations of the Kyrgyz Republic, the first member of the Eurasian agree-
ment to become a WTO member. The Kyrgyz Republic accepted legal commitments to bind its tariffs in the WTO at levels significantly lower than those applied by Russia—the levels that are to be applied by the yet-to-be formed Eurasian customs union.

The Eurasian Economic Community can play an important role in areas beyond trade preferences. For example, it has worked on cooperation in customs activities, an area in which regional efforts are especially appropriate. Russia and Kazakhstan's participation in these efforts is critical because they are major markets for the CIS-7 countries and key transit routes for several of them.

**The Central Asian Cooperation Organization**

This organization is intended to address economic and security cooperation issues. Its economic objectives include the creation of free trade zones in the most important sectors of the economy, improvement of transport infrastructure, and more efficient use of the water resources of transborder rivers and water basins. So far, the organization has served as a vehicle for multilateral discussions of regional issues and as a forum for regular meetings of the presidents of the four member countries.

**The Transport Corridor Europe-Caucasus-Asia (TRACECA)**

TRACECA is supported by the European Commission and aims to establish a transportation corridor linking Central Asia and Europe through the Caucasus. In addition to providing good quality infrastructure (roads and ports), the project seeks to facilitate trade through simplified customs procedures. Implementation has been slow, complicated by the growing number of participants and the political conflicts involving some of them.³

**Moldova**

This country deserves separate mention because it has one foot in each of two regions: it has bilateral preferential arrangements with Russia and Ukraine (and is apparently interested in becoming a member of the Eurasian customs union) and also has signed the Memorandum of Understanding on Trade Liberalization of the Stability Pact, committing it to participate in bilateral free trade agreements with the other seven Balkan countries, which are signatories. Moldova can continue its free trade agreements with other CIS countries, but clearly it cannot be a member of a customs union with Russia and others in the CIS—which would require a common external tariff—while entering into free trade agreements with the Balkan countries.

The small CIS economies are likely to benefit most from open, transparent trade regimes. Free trade agreements that cover substantially all trade (with few product exceptions) among themselves and between themselves and Russia may be useful in providing access to markets. This means, however, that the complex

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³ See World Bank (2001c) for a description of other regional issues and organizations.
and perplexing system of trade preferences that now exists should either be made to work better, by developing transparent rules and a common, limited list of exemptions, or abandoned altogether because it is mainly a source of inefficiency and corruption. But if the overall trade regime is liberal, even free trade agreements that cover substantially all products are unlikely to provide a major stimulus to foreign trade.

Analysis of the potential expansion of trade among the Caucasus countries, in the event that they reestablish normal trading relations, suggests that their mutual trade would expand by a few percentage points even without the establishment of any preferential trade regimes. While the major increase in trade is likely to occur between Armenia and Turkey, all countries should benefit from the overall economic growth that normalization of relations would bring about. Some regional agreements, in particular in Central Asia, could be used as forums for discussion and collaboration on issues such as transport, customs procedures, and the like that could be very important in promoting trade.

**Trade-Related Capacity and Institutions**

Since neither formal trade policies (except in Uzbekistan) nor market access conditions in the main trading partner countries appears to explain the lagging export performance of the CIS-7, other factors must be involved. Effective integration into the world trading system requires the support of a variety of institutions and policies. The availability of low-cost, high-quality services is a critical determinant of export competitiveness. Weak trade-related institutions (in customs and tax administration, the banking system, and marketing and standards organizations), lack of infrastructure, and poor governance likely play a role.

None of the CIS-7 countries scores more than two of a possible four points in the most recent European Bank for Reconstruction and Development rating of competition policy and governance and enterprise restructuring.

Bureaucratic, institutional, and infrastructure constraints to trade would have to be addressed before trade could expand and the CIS-7 countries could reap substantial economic benefits from normalized political relationships. A fundamental problem, not limited to international trade, is an economic interventionist attitude by governments. This attitude is pervasive in nearly all aspects of market activity, but it has an especially stultifying effect on international trade and has been identified as a key constraint in export development in all the CIS-7 countries.

**Customs**

The problems faced by the customs services in all seven countries are well known. Customs services are only a few years old and have not had much time since establishment.

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5 This section summarizes the findings of various studies by governments or donors. The problems in Tajikistan and Uzbekistan have not been extensively studied, so there are far fewer references to these countries. This should not be interpreted to mean that they face fewer problems.
to develop expertise. Salaries are low, and customs officers lack the resources of a modern customs service, including fully computerized communications and data systems. They also are expected to administer a complex, and frequently changing, set of rules and regulations. In Georgia and Moldova particularly, but in other countries as well, customs officers are not able to control large parts of the border. The physical infrastructure is also weak and probably would not be able to cope with significant increases in trade.

These difficulties are compounded by internal management problems. Georgia has had frequent changes in the top customs administrator. Azerbaijan has problems of coordination and communication among the different agencies involved in the clearance of imported merchandise. In Azerbaijan and the Kyrgyz Republic, approvals by standards and health agencies take a long time, and rules are sometimes enforced capriciously. Dispute settlement procedures are lengthy and nontransparent, driving many to resort to bribes. In the Kyrgyz Republic, approvals are needed from agencies located in different parts of the country. Better coordination among the customs authorities in each of the two main regions is also needed.

Many of the CIS-7 countries have been reforming their customs administration, though more needs to be done. Some of the problems are political, requiring political will or international cooperation to resolve them. Some of the problems require additional resources to support ongoing reforms. The key reforms needed relate to internal organization of the customs authority, staffing and remuneration, performance management and accountability, modernization of operational procedures, internal and external control and audit procedures, physical infrastructure, and approval procedures for standards and health organizations.

**Taxes**

The tax system and tax administration are important impediments to exports in many CIS-7 countries. While tariffs are not high, there is often a cascading of tariffs. Also, a value-added tax (VAT) of around 20 percent is charged on all imports. Tariffs and VAT paid on imports used in export production need to be promptly refunded or credited; this rarely happens. As a consequence, export competitiveness is impaired. In the Kyrgyz Republic, the failure to refund tariffs and VAT is estimated to have raised total costs by 9 percent for 44 firms surveyed in 2000.6

Another problem in several CIS-7 countries is high payroll taxes, 39 percent in the Kyrgyz Republic. These taxes diminish the competitiveness of exports and undermine an important comparative advantage of these countries, their large supply of educated and qualified labor.

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6 Cuthberson and Jones (2000).
Banking and Finance

Financial institutions in the CIS-7 countries do not appear capable of financing trade flows. Financial markets are poorly developed; letters of credit, bills of exchange, and other modern payment instruments are unavailable. And while payments between traders in the Central Asian countries can be cleared through settlement accounts in commercial banks of neighboring countries, governments levy taxes on these accounts, and international clearing is tightly controlled.

Exporters have almost no access to domestic credit. This is part of a general problem of credit availability for small and medium-sized enterprises because the banks see other easier, more profitable investment opportunities and because establishing creditworthiness is difficult. As a consequence, credit has to be provided on the importing side, which is easier to do when selling to developed countries than to other CIS countries.

While trade finance is important, improving it should be part of an overall strengthening of the commercial banking system. International experience suggests that directed credit lines specifically designed for short-term trade finance do not have a lasting impact outside the context of a strong banking sector. And there are very few product lines in these countries that require longer-term export credits. Promoting the entry of foreign banks, with their international contacts, could help develop the banking system as well as provide trade finance.

Marketing and Standards

Exporters have to rely on their own resources to market their products because marketing institutions do not exist. For traditional raw material exports (cotton in Uzbekistan or aluminum in Tajikistan), this is not a problem. Difficulties arise in introducing a new product line. Marketing is easier when the export is based on a joint venture with an international partner that has established commercial links abroad. But there are few joint ventures in these economies. These should be encouraged along with the development of domestic marketing organizations.

While little information exists about the operational effectiveness of standards organizations in the CIS-7, there is a general impression that these organizations are weak. On the import side, they tend to delay shipments, sometimes extensively. On the export side, they are unable to provide the information exporters need to meet the requirements in export markets. These organizations have to replace Soviet-era standards with standards that are compatible with modern international trade. This is a requirement for countries joining the WTO. Assistance to these organizations typically has been offered by donors in connection with WTO accession, but there is a continuing need for strengthening these institutions even after WTO accession.

Transport and Transit

Transport costs are a major determinant of competitiveness. In all the CIS-7 countries transport infrastructure is a significant impediment to expanded trade.
The substantial investment in transport infrastructure during the Soviet era was designed to service trade flows within the former Soviet Union. After independence, demand for transport services declined along with economic activity. Since then, infrastructure has been poorly maintained, and no new infrastructure has been added to meet the needs of changing trade patterns. Reform of transport sector management and financing has also been slow.

Roads are in generally poor condition, the trucking fleet is aging and not being renewed, railway rolling stock is antiquated, airfreight services are very limited, and general freight charges are highly subsidized, with transport enterprises—often publicly owned—in poor financial condition.

Road funds and railway companies operating in the CIS-7 countries are in need of substantial institutional strengthening and increased investment in maintenance and repair. Demand and supply for various transport services need to be reassessed in light of emerging patterns of economic activity and international trade. Support for these efforts, such as that provided by the Asian Development Bank, should be an important component of the efforts to strengthen the integration of these economies into world trade.

Transit problems differ for the two CIS-7 groups of Central Asia and the Caucasus, while Moldova appears to face no serious transit problems other than those endemic to a landlocked country. In Central Asia, transit problems are concentrated in the Kyrgyz Republic and Tajikistan, largely in road transport. All Central Asian railways use the same rolling stock, track standards, and rulebooks, and there appears to be good cooperation among the rail authorities in the three countries. In the Caucasus, the problems derive from the Armenia-Azerbaijan conflict and the Turkish blockade of Armenia.

- **Kyrgyz Republic:** The destination of many exports is Russia and the European Union. Road transport costs are typically 10–15 percent of total costs. About a third of this is fuel costs, and the rest is official and unofficial fees and payments at various points in transit countries.7 Transporters also complain that axle weight limitations are set differently and biased against their trucks, and that slight deviations above weight limitations incur disproportionate penalties, forcing them to carry inefficiently small loads.

- **Tajikistan:** About 80 percent of Tajikistan's exports are routed through Uzbekistan, in part because of the topography and in part because Tajikistan's northern and southern rail networks, which carry most of the exports, are not connected. Uzbekistan depends on transit through Tajikistan for access to the Ferghana Valley. Cooperation appears better on rail than on road traffic. Tajik drivers complain that border fees are higher for exports than for imports and that complex customs regulations leave considerable room for harassment and bribery.8

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7 Cuthberson and Jones (2000).
8 World Bank (2001b).
Armenia: Transport costs account for about 10 percent of the total value of merchandise in Armenia. Also, Armenia has been affected by the Turkish blockade, forcing it to reroute its trade through Georgia. It is estimated that lifting the Turkish blockade would halve trucking costs between Armenia and Turkey. There would also be substantial savings if Turkish ports were used for transshipments of sea freight. Opening the direct link between Armenian and Turkish road systems would also increase the availability, predictability, and reliability of shipping services.

Azerbaijan and Georgia: Azerbaijan’s transport costs would decrease less as a result of opening the road between Armenia and Turkey, while Georgia would lose transit fees if the blockade on Armenia were lifted. But all countries would gain from the increased trade and growth that would result from normalization of political relations.  

**Telecommunications**

An efficient telecommunications sector is important to the long-term integration of the CIS-7 countries into the world economy. All the CIS-7 members inherited an extensive but low-quality fixed telephone network. Since independence, the countries have adopted a variety of regulatory regimes and have made varying progress in modernizing and privatizing their telecommunications sector.

Tajikistan has made the least progress. The government controls the fixed-line operator monopoly as well as the broadcasting enterprise, which in turn owns shares in the only cellular, tracking, and paging operators companies. Non-transparent and noncompetitive licensing further increases investor risk and constrains entry into new services, such as the Internet. Infrastructure is outdated and managed inefficiently, and the sector is in a precarious financial position. The structure of tariffs penalizes exporters, with high international tariffs subsidizing low local tariffs.

The Kyrgyz Republic has a sounder regulatory environment, with an established independent regulator. The financial viability of the public sector telecommunications entities is in doubt, however, making the chances of finding an international investor rather slim.

The Uzbekistan telecommunications sector has benefited from Japanese and Korean investments (with EBRD participation). The government is trying to privatize the fixed telephone network and rebuild the licenses for the seven existing mobile operators.

The three Caucasus countries have adopted different regulatory regimes, but telecommunications sector development has been constrained by a common set of regulatory bottlenecks. Chief among these are noncompetitive and

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9 Polyakov (2001).
10 World Bank (2001b).
inconsistent licensing: lack of clear build-out obligations in license agreements; interconnection and revenue-sharing problems among operators; unbalanced tariffs; and a lack of capacity to manage scarce resources, such as numbering or frequencies. Underdeveloped telephone infrastructure, especially low digitalization, hampers Internet connectivity and data transmission, while the high cost of leased lines and international connectivity is a heavy burden for exporters. Foreign interest in these markets is dampened in part by conditions affecting the telecommunications industry globally. While there is growth potential, especially in mobile communications, the three markets are small individually. They need to form a single market to interest foreign investors, which would require making mutually inconsistent regulatory networks more compatible.

Priorities for action depend on the state of development in each of these markets. In Tajikistan the priority is to develop a comprehensive restructuring strategy. This would require separating the operational, regulatory, and policymaking functions of the public sector, establishing a transparent licensing system for infrastructure and service providers, revising existing licenses, and developing a regulatory network. A key short-term priority is to rehabilitate and increase the efficiency of the fixed telephony system, with a view to privatizing it.

In the Kyrgyz Republic and Uzbekistan, the priority is to find a strategic foreign investor to privatize the public telecommunications and fixed telephony system. If this fails, the governments may need to consider alternatives, such as performance-based management contracts with foreign firms.

In the Caucasus, the priorities are to update the legal and regulatory frameworks, especially licensing arrangements that restrict market entry, and to reduce the remaining obstacles to privatization. Efforts are needed to create a regional market for telecommunications services, including common regulatory frameworks and the establishment of a regional Internet exchange point. A breakthrough is also needed on the political side in the Armenia-Azerbaijan conflict.

Elements of a Strategy for Better Integration

In developing a strategy for better integration into the world economy, the CIS-7 countries need to consider policies they can pursue individually and policies that require regional cooperation, often relating to arrangements for strengthening trade capacity and reducing constraints. In many of these efforts the international community can play an important supportive and complementary role.
**Actions by the CIS-7**

**Trade Policy**

- Countries that are members of the WTO need to take advantage of ongoing multilateral trade negotiations to further liberalize their trade policies on a multilateral, reciprocal basis within the WTO framework.

- Countries that are not members of the WTO need to redouble their efforts toward accession, which would contribute to their integration in the international trading system by strengthening their market institutions, establishing clear and transparent rules for the conduct of trade, and creating an opportunity to lock in liberal trade regimes. This would also enhance and secure market access for their products and provide access to a dispute settlement mechanism that would contribute to better trade relations with neighbors and other trade partners.

- Uzbekistan urgently needs to review its trade policy, with a view to eliminating nontariff barriers and export policies that discriminate against cotton producers.

- All CIS-7 countries need to establish efficient ways of providing refunds or credits to exporters for tariffs and other taxes, especially VAT, paid on imported inputs.

**Trade-related Institutions**

- Maintaining macroeconomic stability is crucial. Inflation and overvalued exchange rates can be extremely damaging to export prospects, as can policies that result in large fluctuations in the real exchange rate.

- The numerous approvals, permits, and other clearances required of importers and exporters need to be reduced and procedures need to be streamlined.

- Customs and trade-related institutions dealing with technical standards and sanitary and phytosanitary regulations need to be strengthened. This may require the assistance of the international community and the cooperation of regional trading partners, including Kazakhstan and Russia, which are important both as markets and as transit routes for many of the CIS-7 countries.

- Banking and finance, and tax design and administration need to be reformed as part of the transition to a market economy. The reforms should take into account the needs of the trading community so as to ensure, for example, that exporters are not disadvantaged through the imposition of export or payroll taxes and that the banking system has incentives to provide trade finance.

- Strengthening the transport and telecommunications sectors should receive high priority. These sectors are important to overall development and to increasing competitiveness and participation in international trade.
Regional cooperation will be necessary for many of these actions to succeed and for reduction of the external constraints that impede trade.

Bilateral trade preferences should be streamlined by developing common rules and a small, standard list of exemptions or should be abandoned altogether. The small CIS-7 countries would probably be better off maintaining low protection on a most-favored-nation basis. But maintaining free trade agreements that cover substantially all trade could also be beneficial, especially by contributing to broader regional cooperation.

Maintaining access to the Russian market is especially important to many CIS-7 countries. A free trade agreement with Russia, if it covered substantially all trade, could be beneficial; but a customs union with Russia, based on Russia's higher protective tariff, should be avoided.

In the future, priority should be given to other regional cooperation efforts that hold greater promise for enhancing trade relations, such as collaboration among the countries in Central Asia and, separately, among the countries in the Caucasus. In Central Asia, cooperative arrangements need to include Kazakhstan because of its strong links with the other economies. TRACECA, the transport project linking the two sets of countries, should be pursued in tandem with strengthening cooperation within each group. Moldova's trade future is likely to be better served through closer links with its Balkan partners than with the CIS countries.

In Central Asia, a number of institutions already in place could be used for regional cooperation on a range of issues. These institutions need to be significantly strengthened, however. Even in the Caucasus, despite the Armenia-Azerbaijan conflict, it may be possible to explore ways to enhance collaboration on technical issues, such as standards and telecommunications.

Regional cooperation efforts are especially needed on customs arrangements and border crossings and in the development of a common policy on transit fees, rules, and procedures, especially for road transport. Central Asian institutions, such as the Central Asian Cooperation Organization, already have a mandate to do this. Countries need to use them to reach agreements in these areas.

For meeting WTO commitments, it would be more efficient to have one regional standards authority in Central Asia than to have several separate ones. Similarly, there are potential benefits from the establishment of Central Asian regional institutions on phytosanitary regulations and intellectual property rights. The same holds true for the three Caucasus countries.

Enhanced regional cooperation on transportation, telecommunications, water, and electricity generation in Central Asia and the Caucasus would also promote international trade. Political independence has not reduced these countries' economic interdependence, and cooperation in dealing with common
problems continues to be a priority. But cooperation based on formulas developed under the Soviet system needs to be reviewed, and new economic relations need to be forged based on market principles. The telecommunications sector needs to be modernized, based especially on foreign direct investment and reduced public sector involvement. New technologies offer new opportunities for regional cooperation.

**Actions by the International Community**

**Trade-related Policies**

- Developed countries should identify products of interest to the CIS-7 countries for export that are protected by high tariffs or nontariff barriers, with a view to reducing these barriers in the context of the ongoing WTO multilateral trade negotiations.

- Developed countries should review their trade preference schemes, with a view to improving the preferences offered to the CIS-7 countries. Most of these countries are as poor as the least-developed countries and the Balkan countries, to which various developed countries have offered especially deep and broad preferences in recent periods, and which face limitations just as severe on their capacity to trade.

- CIS-7 countries that become members of the WTO should no longer be considered nonmarket economies in possible antidumping or safeguard actions.

**Assistance Priorities**

- Strengthening the trade-related capacity of the CIS-7 countries should have high priority in assistance programs. This means, in particular, continuing support for strengthening of customs and tax administration and broadening support for the establishment of standards and other trade-related institutions.

- Trade-related assistance should not be terminated once countries become members of the WTO.

- The private sector should have the primary role in strengthening transport and telecommunications, but countries should be assisted in elaborating sectoral and regional strategies in these areas.

- The development of institutions that would foster regional cooperation in Central Asia and the Caucasus should be supported by technical and financial assistance, as should activities that have a true regional dimension.
References


Michalopoulos, Constantine, 2001, Developing Countries in the WTO. (New York: Palgrave Macmillan).


11
Low Pressure, High Tension:
The Energy-Water Nexus
in the CIS-7 Countries

David Kennedy, Samuel Fankhauser, and Martin Raiser

Overview

Energy and water have emerged as critical issues for the CIS-7 countries—Armenia, Azerbaijan, Georgia, the Kyrgyz Republic, Moldova, Tajikistan, and Uzbekistan—and their neighbors for at least two reasons. The first is that energy and water constitute the region's main natural resources, and the exploitation of both was and still is a key to these countries' mode of production. The second is that the distribution of these resources is very unequal across countries. Azerbaijan, Kazakhstan, Turkmenistan, and Uzbekistan benefit from rich energy reserves, while Armenia, Georgia, the Kyrgyz Republic, and Tajikistan have substantial water resources. This unequal distribution gives rise to potential gains from trade but it is also the source of recurrent conflict between neighboring states in the region. Energy and water issues are closely linked given that the latter can be used, inter alia, for hydropower generation and/or irrigation. Use of water in the municipal sector is not discussed in this chapter. Replenishment of the Aral Sea as an alternative to irrigation is consistent with increased winter hydro generation, discussed below under “Unlocking the Benefits from Trade.”

This chapter looks at the energy-water nexus in Central Asia and the south Caucasus regions and the energy situation in Moldova. The central argument is that reform of domestic power (and water) tariffs is key to unlocking the potential for beneficial regional trade in both electric power and water and to stimulating the efficient use of resources. Of course, electric power reforms are linked to regional trade in other primary energy sources, particularly natural gas; where appropriate, these links will be drawn. When the Soviet Union collapsed, the cross-border price of primary energy traded between former republics suddenly increased; however, domestic power prices were not adjusted. For net energy importers this has meant a growing quasi-fiscal burden often associated with significant accumulation of foreign debt to energy-exporting countries. The cross-border payment problems are an important cause of irritation between countries in the region and have motivated a drive toward self-sufficiency in energy. The

1 At the time of writing, the authors were affiliated with the European Bank for Reconstruction and Development (EBRD). The views expressed in this chapter are the views of the authors, not of the EBRD. The chapter draws on the analysis in EBRD (2001).
failure to adjust domestic energy prices has also limited the funds available for investment, and system degradation has resulted. Moreover, the low domestic energy price has had implications for the management of regional water resources. Because energy is not traded efficiently, upstream countries may be using more water for hydropower generation than is economically efficient. Moving toward cost-recovery tariffs in energy would create a basis for evaluating and realizing the significant benefits from trade (which are currently foregone); unlock necessary investments in the power systems of the region; and, if combined with the introduction of water charges, create incentives for a more efficient use not just of energy but also of water resources.

The chapter begins by describing the resource endowments of the region and the impact that the move toward market prices in primary energy trade between CIS countries had on quasi-fiscal deficits, inter-CIS debt, and on energy trade (following section). The section on end-user tariff reform examines the present level of domestic energy tariffs and makes the case for moving toward cost recovery. The section on energy price reform deals with the issue of affordability of cost-recovery tariffs for the poor in the region and the political acceptability of tariff reform. Broad popular opposition and concern about its social impacts have been the main obstacles to tariff reform. The section dealing with the benefits of trade examines the impact of moving to cost-reflective energy tariffs on regional power trade. The section on institutional reform discusses the overall energy sector reform framework and explains why tariff reform needs to be combined with institutional reform—regulatory reform in particular—to attract private investment. This section draws on case studies to show what has and has not worked in energy sector reforms in the transition countries. Concluding remarks follow.

**Natural Links: Resources, Interdependence, and the Breakdown of Regional Trade**

**Energy Resources and Energy Trade**

The CIS-7 countries and their neighbors have abundant energy resources. The Caspian states of Azerbaijan, Kazakhstan, and Turkmenistan have among the world’s largest hydrocarbon (oil and gas) reserves, estimated at around 6.4 billion tons of oil equivalent. Uzbekistan’s reserves are smaller but still amount to 1.8 billion tons of oil equivalent. The Kyrgyz Republic and Tajikistan—home to some 20,000 glaciers and at the source of the two main Central Asian rivers, the Amu Daria and the Syr Daria—have substantial hydroelectric potential, as do Uzbekistan, Georgia, and Armenia (see Table 11.1).

While these resources were not used effectively under central planning, the Soviet system took account of the heterogeneous resource endowments among republics. Primary energy resources, including crude oil, natural gas, and coal

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2 These studies can be found in Annex 1 of Kennedy, Fankhauser, and Raiser (2003).

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Table 11.1. Energy Resources in CIS-7 Countries and Their Neighbors

<table>
<thead>
<tr>
<th></th>
<th>Natural Gas (billion m³)</th>
<th>Oil (billion tons)</th>
<th>Hydro (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armenia</td>
<td>1,010</td>
<td>—</td>
<td>1,010</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>120</td>
<td>0.9</td>
<td>950</td>
</tr>
<tr>
<td>Georgia</td>
<td>2,800</td>
<td>—</td>
<td>2,800</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>1,820</td>
<td>1.1</td>
<td>2,060</td>
</tr>
<tr>
<td>Kyrgyz Republic</td>
<td>2,950</td>
<td>—</td>
<td>2,950</td>
</tr>
<tr>
<td>Moldova</td>
<td>60</td>
<td>—</td>
<td>60</td>
</tr>
<tr>
<td>Russia</td>
<td>47,600</td>
<td>6.7</td>
<td>43,400</td>
</tr>
<tr>
<td>Turkmenistan</td>
<td>2,830</td>
<td>0.1</td>
<td>1</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>—</td>
<td>—</td>
<td>4,020</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>1,850</td>
<td>0.1</td>
<td>1,700</td>
</tr>
</tbody>
</table>

Sources: EBRD (2001) and U.S. Energy Information Administration.

Note: Figures show proven reserves for oil and gas, and current capacity for hydro.

were shipped across the Soviet Union in a vast network of transportation links. The power networks in the Caucasus and Central Asia were integrated, and energy resources were exploited on a regional basis. In Central Asia, hydropower was supplied to the regional network by the Kyrgyz Republic and Tajikistan, while Kazakhstan, Uzbekistan, and Turkmenistan supplied thermal-generated (oil and gas) power. In the Caucasus, Armenia supplied nuclear and thermal power to the regional system, Azerbaijan supplied thermal power, and Georgia supplied hydro and thermal power.

Following the dissolution of the Soviet Union, primary energy prices increased substantially for cross-border trade between the newly independent states. For crude oil and coal, the breakdown of the Council for Mutual Economic Assistance (CMEA) meant access to the world markets and hence an almost immediate increase in opportunity costs, as both resources are globally traded. For natural gas, the situation has been more complicated, given limited storage capacity and the difficulty of transportation. Despite these bottlenecks, natural gas prices have also increased substantially in intra-CIS trade.

The move toward market prices in intra-regional primary energy trade has resulted in the emergence of significant payment problems by CIS importers,

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who are unable to generate the cash flow in their domestic energy systems that is required to cover higher import costs. Table 11.2 shows the extent of quasi-fiscal deficits in the energy sector in the CIS-7 countries, as well as estimates for the share of public debt due to the energy sector. By the end of the 1990s, quasi-fiscal deficits were still in the range of 4 to 8 percent of GDP in the energy-importing countries and energy-related public debt amounted to between 10 and 20 percent of GDP, much of this due to foreign creditors. In Azerbaijan and Uzbekistan, the two net energy exporters of the CIS-7, quasi-fiscal deficits were also large, but the burden was carried mainly by domestic energy producers rather than financed from abroad. Developments in regional energy trade are therefore closely linked to the foreign debt problem in the CIS-7, and debt sustainability will require these economies to tackle the root of the quasi-fiscal deficits in the sector, low domestic energy prices.

Partly in response to regional payment problems, and partly out of a political desire for resource independence, the CIS-7 countries have moved toward a policy of power sector self-sufficiency. In the Caucasus, trade has fallen drastically, with limited imports to Georgia from Armenia and Russia, and no trade between Azerbaijan and the rest of the system. Energy trade in the South Caucasus is also affected by the dispute between Armenia and Azerbaijan over Nagorno Karabakh. There are currently no official trade relations between the two countries.

In Central Asia, hydropower that had been exported to meet peak demand in Soviet times was substituted by domestically generated thermal power. Table 11.3 shows the change in power trade in Central Asia between 1990 and 2000. It is notable that exports of hydropower to Kazakhstan and Uzbekistan from Tajikistan and, to a lesser extent, the Kyrgyz Republic fell substantially over this period. Likewise, imports by Tajikistan and Uzbekistan of thermal-generated power fell significantly. This represents reduced system integration as opposed to the more general decline in power production between 1990 and 2000: the ratio of power trade to total output in Central Asia fell 80 percent over this period.

**Hydro Power and Water Management: The Case of Central Asia**

Changes in hydropower generation patterns and the drive of the Kyrgyz Republic, and to a lesser extent Tajikistan, toward energy self-sufficiency have led to growing tensions over water allocation among Central Asian states and underlie the unsustainable nature of water management in Central Asia. The inefficiency and environmental costs of water management in Central Asia and the Aral Sea basin in particular are well documented, but excessive water use has also caused problems in Armenia, where the water table of Lake Sevan has been reduced as a consequence of water overuse.

Much of the pattern of Central Asian water use is a direct legacy of the old Soviet system. Starting in the 1920s and culminating in the 1950s, the Soviet Union began to put in place the infrastructure and institutions for the large-scale

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4 See, for example, Micklin (2001) and Global Economic Facility (1998).
<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Armenia</td>
<td>0.4\textsuperscript{1}</td>
<td>12 (or $224 million)</td>
<td>Flow deficit greatly reduced since 1998, but total financing in 2000 still 3.9 percent of GDP; debt adjusted for debt-equity swap with Gazprom in 2000.</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>27\textsuperscript{1}</td>
<td>—</td>
<td>Deficit relates to total energy sector including oil, gas, and power; at least $200 million in foreign debt was contracted for the power sector.</td>
</tr>
<tr>
<td>Georgia</td>
<td>6\textsuperscript{2}</td>
<td>18\textsuperscript{1} (or $555 million)</td>
<td>Deficit falling since 1999; cash collection in particular was up in 2002.</td>
</tr>
<tr>
<td>Kyrgyz Republic</td>
<td>7\textsuperscript{3}</td>
<td>—</td>
<td>Deficit in all utilities; power sector alone was 4 percent of GDP.</td>
</tr>
<tr>
<td>Moldova</td>
<td>—</td>
<td>18.5</td>
<td>Debt includes debt to Gazprom for gas deliveries, but adjusted for debt-equity-swap.</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>7.3\textsuperscript{1}</td>
<td>11</td>
<td>Deficit for power and gas sector includes technical losses; debt is total accumulated payables.</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>30\textsuperscript{3}</td>
<td>—</td>
<td>Uzbek power prices are significantly below long-run marginal cost; however, gas prices were raised roughly to import parity level from 1995 onward (although at the official exchange rate).</td>
</tr>
</tbody>
</table>

Sources: IMF (Uzbekistan), World Bank (other countries).
\textsuperscript{1} 2000.
\textsuperscript{2} 1999.
\textsuperscript{3} 2001.
Table 11.3. Central Asia Power Trade, 1990 and 2000
(In GWh)

<table>
<thead>
<tr>
<th></th>
<th>1990</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kazakhstan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exports</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Imports</td>
<td>9,064</td>
<td>1,269</td>
</tr>
<tr>
<td>Kyrgyz Republic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exports</td>
<td>3,978</td>
<td>2,376</td>
</tr>
<tr>
<td>Imports</td>
<td>—</td>
<td>318.7</td>
</tr>
<tr>
<td>Tajikistan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exports</td>
<td>5,700</td>
<td>333.8</td>
</tr>
<tr>
<td>Imports</td>
<td>6,900</td>
<td>1,681.2</td>
</tr>
<tr>
<td>Turkmenistan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exports</td>
<td>6,050</td>
<td>1,060</td>
</tr>
<tr>
<td>Imports</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exports</td>
<td>13,000</td>
<td>848.7</td>
</tr>
<tr>
<td>Imports</td>
<td>12,500</td>
<td>1,349.8</td>
</tr>
</tbody>
</table>

Source: EBRD consultants' report.

use of Central Asia’s water resources. The primary focus was on irrigation and the production of cotton, and to a lesser extent other crops. Other concerns, such as hydropower production and flood protection, were clearly subordinated to the primary objective of maximizing the output from irrigated agriculture. The massive Toktogul and Nurek cascades on the Syr Daria and Amu Daria, respectively, were operated in irrigation mode, with water release peaking in summer to coincide with the vegetation period. The summer hydropower generated in the process was mostly consumed in Uzbekistan and Kazakhstan. The two upstream republics were compensated with Uzbek gas and Kazakh coal, which allowed them to meet their winter electricity peak.5

The breakup of the Soviet Union has in many ways exacerbated existing problems with this system. The Central Asian water and energy infrastructure was designed as an integrated, centrally managed system. With the emergence of five independent states this structure fell apart, and what was once a technocratic exercise in central planning became a problem of intergovernmental coordination. The downstream states insisted on a minimum level of water release in summer as part of their riparian rights, but the poorer upstream states found it increasingly difficult to find the hard currency to pay for winter fuel. In this

5 Sharma and others (2003).
situation the five Central Asian governments resorted to annual barter arrangements that in essence emulate the old Soviet system. Thus, in the case of the Syr Darya, the Toktogul cascade is operated in irrigation mode, allowing Uzbekistan and Kazakhstan to maintain their extensive agricultural programs. The Kyrgyz Republic also exports summer hydropower for which it is paid in Uzbek and Kazakh coal and gas. Institutionally, the system is supported by a new regional water management body, the Interstate Commission for Water Coordination (ICWC), which was set up in 1992 in Tashkent and made responsible for the management of annual water allocations and the schedule for the operation of reservoirs.

The new arrangements have not prevented the dispute over water rights from growing. The built-in tension of this system is that it favors heavily the cotton producers downstream, who consume most of the water (see Table 11.4), while the mountainous states shoulder much of the burden in terms of maintaining and operating the upstream reservoirs. Not surprisingly, following their independence the Kyrgyz Republic and Tajikistan have started to press for more generous water quotas that reflect their abundant resources. They increasingly ignore the tough winter release limits imposed on them under the old water management system, and run the cascades on hydropower mode. The change in reservoir operations is causing considerable problems downstream, where water is lacking in summer and the dilapidated infrastructure cannot cope with the additional volumes in winter.

<table>
<thead>
<tr>
<th>Table 11.4. Water Allocation in Central Asia, October 1996-October 1997</th>
</tr>
</thead>
<tbody>
<tr>
<td>(In percent of water flow)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Downstream</td>
</tr>
<tr>
<td>Kazakhstan</td>
</tr>
<tr>
<td>Turkmenistan</td>
</tr>
<tr>
<td>Uzbekistan</td>
</tr>
<tr>
<td>Upstream</td>
</tr>
<tr>
<td>Kyrgyz Republic</td>
</tr>
<tr>
<td>Tajikistan</td>
</tr>
</tbody>
</table>

\[
\begin{array}{ccc}
\text{Amu Darya} & \text{Syr Darya} & \text{Total} \\
\hline
\text{Kazakhstan} & - & 30 & 10 \\
\text{Turkmenistan} & 36 & - & 24 \\
\text{Uzbekistan} & 36 & 42 & 38 \\
\hline
\text{Kyrgyz Republic} & <1 & <1 & <1 \\
\text{Tajikistan} & 13 & 7 & 11 \\
\end{array}
\]

Note: Residual amounts are allocated to the Aral Sea region.
Moreover, the lack of transparency in the annual bilateral barter arrangements negotiated between the different upstream and downstream parties is a cause of significant friction. Even if the system were run in irrigation mode, the downstream states object that, because they are forced to buy summer power, they are in essence paying for water resources that under riparian rights should be theirs for free. Yet the barter arrangements make it impossible to assign a monetary value to the different energy flows and establish what implicit water charges may be contained in the agreement, although generally implicit water charges would appear to be negligible. Also, because of varying water flows and irrigation water needs that depend on climatic conditions, there is significant uncertainty over the water take off requirements of downstream countries in any one year. In this situation, the incentives for the upstream countries to stick to the bilateral arrangements and operate the system in irrigation mode are not very high.

The region’s water management problems are further exacerbated by the unreformed nature of much of Central Asian agriculture, which creates an artificially high water demand. As a consequence of the state’s procurement of cash crops at below market prices and the massive subsidisation of water inputs through the system of water allocation, the efficiency of water use is extremely low. It has been estimated that as much as a third of the water delivered to farms is not used by crops, which is almost three times more than in a well-managed system. At 12,000 m³ per hectare, water use in the region is more than double that of Israel, the world’s most efficient water manager.\(^6\)

The lack of reform has affected the ability and willingness of farmers and the state to maintain the extensive irrigation infrastructure. As a consequence, these assets, which were of poor quality to start with, have begun to deteriorate. The deterioration in the hydraulic infrastructure and embankments has increased the risk of flooding and has reduced the carrying capacity of the rivers during the high water flows of winter. The problem extends beyond agricultural infrastructure to the large dams and reservoirs upstream, and the safety of many of these is now seriously impaired. The total investments needed for rehabilitation and repair have been estimated at around $10–20 billion. In the water and power sectors alike, there is a need to adjust tariffs both to provide an incentive for the efficient use of these resources and to raise cash for the rehabilitation and maintenance of systems.

**Getting the Prices Right: The Crucial Role of End-User Tariff Reform**

In the Soviet era, power tariffs were low relative to long-run costs in order to provide abundant supplies for use in production and consumption. This situation was sustainable, given the implicit and explicit subsidies in the form of low primary energy and water prices and budgetary transfers to the power industry. As the previous section showed, however, the implicit subsidies have been eroded as

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\(^6\) See Micklin (2001).
the price of primary energy has risen following the end of communism. In addition, supply costs have increased due to the loss in efficiency caused by the breakdown in regional trade. The inability of budget-constrained governments to increase support and the failure to increase tariffs to cost-recovery levels have undermined the financial viability and sustainability of power sectors—and power trade—in the region.

The extent of power sector underpricing is illustrated in Table 11.5. The optimal pricing rule that is applied to transition economies where demand is stagnant and excess capacity often exists, sets price somewhere between marginal operating cost and long-run marginal cost (LRMC). Marginal operating cost is defined as the cost of producing an extra unit of output using the existing capital stock. Long-run marginal cost is marginal operating cost plus the cost of additional capacity required to increase output. The price could be expected to rise above marginal operating cost and toward LRMC as demand picks up and investments are undertaken.

Further work is required to establish the LRMC for the CIS-7 countries. LRMC is specific to each (national or regional) power network and depends on factors such as technology, fuel prices, transmission links, and so on. For example, LRMC is likely to differ according to whether power generation is based on hydro, gas, or coal. Similarly, the LRMC for a hydro system operating in a regional system that includes thermal capacity is likely to be different from the LRMC for the same hydro system operating in isolation. The LRMC is around US$8 per kWh in the United States, and slightly higher in Western Europe. It is likely to be lower in the CIS because of lower economic fuel prices, although in practice the price might have to rise above LRMC to recoup past debt. This

<table>
<thead>
<tr>
<th>Country</th>
<th>Residential Tariff</th>
<th>Industrial Tariff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armenia</td>
<td>4.4</td>
<td>2.9</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>2.1</td>
<td>6.3</td>
</tr>
<tr>
<td>Georgia</td>
<td>4.2</td>
<td>3.3</td>
</tr>
<tr>
<td>Kyrgyz Republic</td>
<td>0.6</td>
<td>1.4</td>
</tr>
<tr>
<td>Moldova</td>
<td>5.2</td>
<td>5.2</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>0.2</td>
<td>1.1</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>1.0</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Source: EBRD survey of regulatory authorities.
depends on a number of factors, such as rents-to-existing-capital under LRMC pricing and terms of debt rescheduling, and is not discussed here in detail. Notwithstanding this, LRMC pricing would ensure the viability of power sectors on a forward-looking basis. As a rough estimate, we assume LRMC to be of the order US¢5 per kWh, which suggests that further price increases will be required in all countries, with the highest raises needed in Central Asia. For example, various consultant reports for Uzbekistan put the LRMC in that country at US¢3.5-7 per kWh.

In addition to the widespread problem of underpricing, the difference in prices between consumer groups can also be problematic. Typically, residential power tariffs are lower than those for industry. On average, industrial tariffs are 2.1 times higher than residential tariffs across the CIS-7 countries. This contrasts sharply with Western Europe, where industrial tariffs are on average two-thirds of the price charged to households, reflecting the relative costs of supplying these two customer categories.

A further distortion relates to price differentials according to time of day and time of year. In general, LRMC will be specific to times of day and year, given that electricity demand will fluctuate substantially. Consequently, demand during a peak period generally will incur operating costs plus capital costs, while off-peak demand generally will incur only marginal operating costs. This is because capacity exists for peak demand. Additional demand in the peak therefore requires additional capacity. Additional off-peak demand can be satisfied using existing capacity. There has been very little progress as regards time-of-day pricing in CIS-7 countries, the exception here being Armenia. Prices tend to be uniform across time of year, and, typically, charges for large customers are small relative to the underlying cost. Clearly there is significant scope for further tariff rebalancing to pricing arrangements throughout the region.

The collection of payments plays a critical role in power pricing in the transition economies (Table 11.6). Cash collection (the percentage of total cash collected relative to amount billed) and revenue collection (cash collection plus barter payment) are far below 100 percent, and commercial losses (defined as nonbilled consumption) are substantially above OECD levels. In Western Europe and the United States, cash collection is typically close to 100 percent, and commercial losses are typically close to zero. In the CIS-7 countries, cash collection averages only 46 percent and commercial losses 20 percent. Cash collection is particularly low for industrial consumers, and consequently incentives for industrial restructuring are limited.

The same issues that applied to power tariffs—low prices, price variation between consumer groups, and low collection rates—are also present in the district heating sector. Heat prices are often close to zero in the CIS-7 countries. This can be compared with the LRMC of a freestanding boiler—the closest alternative to district heat—of around US¢3 per kWh in Central and Eastern Europe, the Baltics, and Southeastern Europe, and US¢2 per kWh in the CIS, where gas is available more cheaply. An LRMC benchmark for district heat is difficult to
Table 11.6. Power Cash Collection and Commercial Losses
(In percent)

<table>
<thead>
<tr>
<th>Country</th>
<th>Cash Collection</th>
<th>Commercial Losses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armenia</td>
<td>87(^1)</td>
<td>-</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>30(^1)</td>
<td>15</td>
</tr>
<tr>
<td>Georgia</td>
<td>32(^1)</td>
<td>28</td>
</tr>
<tr>
<td>Kyrgyz Republic</td>
<td>45(^2)</td>
<td>17</td>
</tr>
<tr>
<td>Moldova</td>
<td>55(^2)</td>
<td>28</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>-</td>
<td>14</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>25(^1)</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: EBRD survey of regulatory authorities.
\(^1\) 2001.
\(^2\) 2000.

establish because systems differ widely, and there are few comparison networks outside the region. As in the case of power, industry tends to be charged higher rates than residential consumers, despite the higher cost of serving the latter. Anecdotal evidence suggests that collection is also problematic, particularly from public sector consumers, but no systematic data are available.

There is little disagreement in principle over the main challenges facing the energy sector: to increase prices, to reduce the cross subsidy between customer categories, and to improve payments discipline. Meeting these challenges will reduce energy sector liabilities for governments and thus reduce pressure in the areas of budget and external debt. It will make investments economically viable without the need for a sovereign guarantee. Finance will become available for new power and heat-generating stations and the upgrading of transmission and distribution networks, resulting in declining losses and improvements in system security. Residents will have incentives to regulate heat and power consumption. Industry will have incentives to improve energy efficiency and to move away from energy-intensive production methods. Sector cash flows will be sufficient to support trade, and this, together with water tariff reform, may in turn facilitate the move toward more efficient water management as well (see section below).

Affordability and Energy Price Reform: How to Protect the Poor

Price reform does not come without costs; and for elected governments, not the least of these might be political, because tariff increases are unpopular with vot-
ers. Thus, tariff increases must be sold on the basis that they will result in improved sector performance. Gradual tariff increases may ease political concerns, though this would not be practical where investment needs are urgent. It would be preferable to introduce subsidies to benefit all groups, while moving away from the blanket subsidy implicit in low prices. This can be done through a lifeline tariff, as discussed below.

From a social point of view, the impact of tariff reform on poorer groups is of particular concern. Electric power and heat are important basic services. People without access to power may suffer genuine hardship. In the climate of the CIS-7 countries, people without access to heat would be putting their health at significant risk during the winter. Household incomes have already fallen in many transition economies, particularly in the CIS-7 countries, and there is widespread poverty. This has important implications for how price adjustments can be introduced and highlights the importance of effective compensation mechanisms.

The affordability of price increases is a concern for all those households living at or below subsistence level. A significant share of the population in most CIS countries would have difficulty affording large price increases for energy. The poor typically comprise between 25 and 50 percent of all households. While a significant number of these households lack connections to utilities, particularly in rural areas, the majority of the urban poor would be greatly affected by any price increases. In addition to welfare concerns, the political viability of price reform remains a key issue. Attention needs to be paid therefore to the level of poverty in the population and to the burden of utility payments in current household budgets.

How is it possible to make sure that all those eligible to receive energy subsidies really benefit while minimizing the subsidy to those who could afford to pay cost-recovery prices? And what are the implications for public finances and the financial performance of the utility? Broadly speaking, there are four types of subsidies for the transition economies: continued supply to nonpaying customers or across-the-board price subsidies; lifeline tariffs, where consumers receive an initial block of energy for free or at a low price, with consumption of additional blocks charged at higher prices; targeted subsidies; and nontargeted subsidies or general income support. In evaluating the benefits of these approaches, it is important to consider certain conflicting aims. On the one hand, the effectiveness of the subsidy scheme depends on the extent to which it covers all potentially eligible groups. On the other hand, its efficiency depends on reaching only those consumers who need it. Additional objectives are to minimize the scheme's costs for the government or the utility; to make it fair and cost efficient to administer; and to minimize distortions arising from the scheme. Clearly a country must also have the institutional capacity to operate the chosen scheme.

Providing across-the-board price subsidies or continuing to provide power to nonpaying customers essentially would mean an extension of the status quo and would not achieve most of these aims. While such a scheme typically covers all poor people with utility connections (which may in some cases be a minority of
the poor), it lacks targeting. As a result, the costs are high either for the government or for the utilities. Incentives to economize on energy consumption are also absent under this scheme.

The benefits of the other subsidy mechanisms are more difficult to evaluate and, to a large extent, depend on the level of poverty, its frequency and severity, and on the capacity of the state to administer social transfer schemes. Lifeline tariffs are most appropriate when the number of people with difficulty paying is relatively large and state capacity is limited. Lifeline tariffs can be implemented only when consumption can be adequately metered, which applies to electricity but not necessarily to heating services, where metering is often possible only at the apartment block level. Apartment size is sometimes used as a proxy for heat consumption. Moreover, the costs of lifeline tariffs could be quite substantial compared with more directly targeted subsidies. On the plus side, lifeline tariffs benefit all groups in the population and can therefore ease political resistance to tariff increases. A lifeline tariff with a generous free consumption block declining over time could therefore be advantageous from a political point of view, though this would have to be tailored according to government budget constraints.

Targeted subsidies can achieve better efficiency if the subsidy is directly related to household incomes. These subsidies are appropriate for situations where there is no metering and therefore are a possible means of subsidizing heat consumption. Russia and Ukraine have at various times used a form of targeted subsidy known as a burden limit. This is defined as a percentage of expenditure on utilities above which a household would receive a subsidy. Such burden limits often fail to reach a significant proportion of the poor, however, who may be forced to forego energy consumption in order to pay for food and shelter. Measurement of household incomes is particularly difficult in many transition countries, where large informal economies exist. The introduction of targeted subsidies has to take into account the state's administrative capacity. These subsidies will typically work best when combined with an already existing system of income support, as is the case in many Central European countries. In many transition economies, however, the coverage of targeted subsidies is often less than perfect, leading to a trade-off between the higher coverage achieved by a lifeline tariff and the better targeting and potential cost savings of a targeted scheme. For instance, targeted subsidies were adopted in conjunction with a recent EBRD investment in the power sector in Georgia, but considerable technical assistance was needed to identify the poor.

While there may be difficulties implementing either lifeline tariffs or targeted subsidies in CIS-7 countries, there is an urgent need to move away from blanket subsidies in the form of low prices and payment collection. Depending on institutional capacity and metering—both of which should improve over time—either

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7 An alternative is to introduce a lifeline tariff with a low free consumption block and a high marginal tariff, together with the option to pay a unit tariff over all consumption at a lower marginal rate. This mechanism does not impose higher tariffs on consumers, rather, it allows them to choose whether or not to pay a higher rate.
lifeline tariffs or targeted subsidies could be implemented efficiently and help to reduce political resistance and the adverse social impacts of tariff reform.

Unlocking the Benefits from Trade

The resurrection of trade in Central Asia and the Caucasus could limit the tariff increases required to reach cost recovery. When resource endowments across countries within a region are heterogeneous, there is the potential for substantial system cost reductions through trade. At the same time, without domestic tariff adjustments the benefits from regional trade will remain unrealized because cash flows within the system are insufficient to cover import costs.

The benefits from regional trade in energy are particularly large in regions where countries are in different time zones and thus have noncoincidental peak demand, in which case trade opportunities for a given installed capacity increase. In addition, costs associated with reserve capacity to meet unexpected upswings in demand or to compensate for units that are unexpectedly unable to supply energy are lower in an integrated system.

In the case of Central Asia, the installed capacity would suggest that opportunities for profitable trade still exist (Table 11.7). The Kyrgyz Republic and Tajikistan have hydro capacity far in excess of peak demand and thus have the potential to export. It is intuitive that these countries should provide power to the system in peak periods. Looking only at the power sector, the optimal solution would usually be to generate hydropower during the winter peak. This pattern may change, however, if wider considerations are taken into account. Much of the thermal capacity in, for example, the Kyrgyz Republic comes from combined heat and power stations (CHPs), which are run most effectively in winter when the synergy between the two outputs (heat and power) is strongest. Similarly, the value of the by-product of hydro generation, water release, is highest in summer, suggesting that the traditional operation of the system in irrigation mode might in fact have some economic justification. A recent World Bank study found that the marginal costs of Kyrgyz power generation in winter are in fact lower than the marginal costs of Uzbek summer production, especially once the value of irrigation water is taken into account. This suggests that it may be advantageous to produce hydropower in summer, when it replaces expensive Uzbek capacity, rather than in winter, when it would replace cheaper Kyrgyz capacity.

In addition to the benefits from trading thermal and hydropower, there may be an additional benefit from trading thermal power, to the extent that efficiency (both thermal and operational) differs between Kazakhstan, Uzbekistan, and Turkmenistan. Without presenting comprehensive data here, it is likely that there are differences in thermal efficiency, given the different mix in plant fuel type, technology, and age.

The key to unlocking benefits from trade is in pricing policy. A necessary condition for power trade, whether this is centralized at the level of countries or at the

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8 Sharma and others (2003).

David Kennedy, Samuel Fankhauser, and Martin Raiser
level of generators and large consumers, is that sectors are financially viable and thus able to pay for imports. If a decentralized market in power is to develop, end-user tariffs must reflect the costs for each customer category. Development of this type of market is typically one objective of a power sector reform program.

In addition to cost reflectivity at the end-user level, trading prices should also be cost reflective, to ensure that trade is efficient. The limited trade that currently takes place in Central Asia is characterized by price distortions. It is governed by bilateral and multilateral agreements that cover barter exchange of electricity, water, and primary energy (see also preceding section on end-user tariff reform).

Under economic pricing, in order to encourage efficient trade, resources would be valued at opportunity cost, that is, their value in alternative uses. There is a link here between establishing the conditions for efficient trade and introducing an appropriate charge for water. Despite the overall economic benefits of running the hydropower infrastructure in the upstream countries in irrigation mode, the value of additional power to the downstream countries in summer may be below the opportunity cost of foregone power generation capacity upstream in winter. In this case, power trade would not take place without the introduction of an additional charge for water. Indeed, given the overall economic benefits, water should at least be priced at a level that reflects winter (thermal) power generation cost to allow efficient trade to take place. Studies suggest that the downstream value of water for use in irrigation far exceeds this minimum price. The introduction of water charges would signal to Uzbekistan the appropriate level of water to use for irrigation. It is likely that higher prices would lead to some

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9 In the above example of the Toktogul Cascade, the conditions for power trade are present even without adding a charge for water. However, between the Kyrgyz Republic and Kazakhstan, for instance, power trade would not take place based on cost differences for power generation alone.
reduction in downstream water usage, with increased hydropower generation in
the winter peak by the Kyrgyz Republic and Tajikistan.

Given the strong insistence of the downstream countries on their riparian water
rights, the introduction of water charges may not be easy to accomplish politi­
cally. One alternative, which has recently been proposed by Kazakhstan and the
Kyrgyz Republic for the Kanabarata hydropower station, is for the downstream
countries to invest in the upstream infrastructure, thereby allowing upstream
countries to better regulate the water flow while at the same time increasing
hydropower generation capacity. It remains to demonstrated, however, whether
hydro capacity forms part of the sector's least-cost expansion plan, whether large
investments in hydro are bankable, and whether they can meet the stringent
social and environmental conditions imposed by most financial institutions and
the World Commission on Dams. Internationally, the case of Lesotho and South
Africa provides an example of a multiyear agreement whereby South Africa pays
Lesotho water royalties for an agreed off-take of drinking water resources. The
agreement also includes significant upstream investments by South Africa and
resulting hydropower benefits for Lesotho. Lesotho in turn bears all environmen­
tal and social costs of the investment and loses all rights to its water resources. 10

Moving to technical capacity for regional trading, investments would be
required in the areas of transmission network substation rehabilitation and instal­
lation of metering and data communication equipment. The costs associated with
these investments are small relative to the associated benefits in terms of cost
reductions associated with trade. In addition, investments in institutional capacity
would be required if a market is to work. The institutional arrangements to sup­
port a market are discussed in the following section.

In the Caucasus, installed capacity, as shown in Table 11.8, suggests that there
is scope for gains from regional trade, given the heterogeneity of resources. The
intuitive dispatch pattern would be for nuclear and thermal generation to meet
base demand, with hydro generation supplying peak demand. This can be com­
pared to the present situation, where Georgia generates hydropower to meet base
demand. Thus benefits would accrue if Georgia were to export hydropower to
Armenia in the peak period, and to import thermal-generated power from
Armenia, Azerbaijan, or Russia to meet base demand.

Currently, the incentives for trade are limited due to price distortions. For
example, the price of power in Georgia is too low to provide an incentive to
import power in base periods. If power were to be priced at opportunity cost,
that is, if hydropower were priced at the level of the Armenian thermal-generat­
ing plant, then the correct incentives for trade would be in place. In this situa­
tion, demand for imports to Georgia would increase—the price of hydro would
be higher than imported base generation, nuclear or thermal—and there would
be demand for Georgian hydropower in peak periods at a price up to the peak
generating cost in Armenia.

10 See Sharma and others (2003).
Table 11.8. Installed Capacity in the Power Sector in the Caucasus
(In megawatts)

<table>
<thead>
<tr>
<th>Country</th>
<th>Thermal</th>
<th>Hydro</th>
<th>Nuclear</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armenia</td>
<td>1,400</td>
<td>1,000</td>
<td>300</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>4,000</td>
<td>900</td>
<td>—</td>
</tr>
<tr>
<td>Georgia</td>
<td>2,100</td>
<td>2,800</td>
<td>—</td>
</tr>
</tbody>
</table>

Source: EBRD.

There would be a need for investments in network rehabilitation, metering, and data communication to support trade, but associated costs would probably be small relative to benefits. There is also the possibility of building new network connections to link Azerbaijan, Georgia, and Turkey. In this case, Georgia could export hydropower to Turkey, while Azerbaijan could export some of the newfound gas reserves in the Caspian Sea in the form of power. Preliminary consultants’ reports suggest that this interconnection would be economically viable.

**Making Market Prices Stick: The Need for Institutional Reform**

To make tariff adjustments work in the energy sector institutional reform is critically needed alongside price adjustments in two areas. First, of private investment and management expertise must be attracted to improve collection rates and the technical efficiency of the power system. Improvements in efficiency resulting from private participation may in turn reduce the price increases necessary to ensure the viability of the power sector. The introduction of the private sector would also help to mobilize finance and increase the possibility of further investments in the sector. Second, institutional reforms are needed to support private investment through a system of credible and effective regulation. The power sector is a market characterized by significant network externalities in transmission, and full competition can only emerge in a well-regulated system. Private investment will only be forthcoming if network access is guaranteed and tariffs are set in the context of transparent regulation.

There are powerful reasons for accelerating private sector involvement when payments discipline is low, as it is in the CIS-7 countries. A private firm owned or managed by a foreign strategic investor will have a stronger incentive to enforce payment discipline than elected or underpaid officials. It will also have the technical knowledge and finance required for essential re-metering programs, computerization of billing, and other measures that can help improve payments performance. Effective metering is necessary for improved collection. Experience shows that people are prepared to pay for what they can be shown to consume.
Furthermore, effective metering is required in order to reduce commercial losses. For example, there is evidence to demonstrate that commercial losses fall after Soviet-style meters are replaced with modern tamper-proof meters. Experience to date suggests that in cases where the private sector has entered power distribution, payment collection has gone up. Table 11.9 outlines developments in Kazakhstan (Almaty and Karaganda), Georgia (Telasi) and Moldova, where there have been major improvements in payment discipline.

Apart from improving payment discipline, there is only limited evidence from transition economies to suggest that private sector participation improves operational performance. Experience in infrastructure reform in the United Kingdom and the widespread private participation in infrastructure around the world, however, suggest that the introduction of the private sector in a well-regulated and liberalized environment results in performance improvements.

**A Blueprint for Reform**

Introducing the private sector into a well-regulated and, where possible, liberalized environment is an important objective, but the order in which reform policies are implemented is also critically important. There are no formulaic solutions, and the appropriate reforms will tend to vary from country to country. For example, an institutionally more-advanced country may adopt more sophisticated trading arrangements, while recourse for investors in the event of a regulatory dispute may differ according to the level of independence and integrity of the local judiciary. The following steps—based on the successful experience in England and Wales and lessons from transition countries where restructuring and privatization have been undertaken—provide some broad parameters for power and heat reform.\(^{11}\)

- **Corporatization and commercialization of the industry:** The first step is to set up a joint-stock company wholly owned by the state, with the separation of accounts for different parts of the business. The next step is to unbundle the company, dividing it into subsidiaries into which private activity can be introduced and, ultimately, where market liberalization can occur.

- **Regulatory authority:** A regulatory authority that is free from day-to-day political interference needs to be set up. This agency should establish tariffs for those parts of the industry that remain a monopoly. This is likely to include retail tariffs as well as access charges. The agency should also develop and implement rules for network access. There will also be a need to enforce environmental, health, and safety standards.

- **Entry of the private sector:** Before a full framework for private participation is in place (i.e., before regulatory and market rules are fully developed), a limited number of concessions can be granted when there is an urgent need for reha-

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\(^{11}\) Individual case studies from the transition economies are reviewed in Annex 1 of Kennedy, Fankhauser, and Raiser (2003).
Table 11.9. Cash Collection Rates\(^1\) Pre- and Postprivatization
(In percent)

<table>
<thead>
<tr>
<th></th>
<th>Preprivatization</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Almaty, Kazakhstan</td>
<td>1</td>
<td>51</td>
<td>70</td>
<td>80</td>
</tr>
<tr>
<td>Karaganda, Kazakhstan</td>
<td>10</td>
<td>25</td>
<td>35</td>
<td>46</td>
</tr>
<tr>
<td>Telasi, Georgia</td>
<td>8</td>
<td>14</td>
<td>29</td>
<td>55</td>
</tr>
<tr>
<td>Moldova</td>
<td>26</td>
<td>58</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

Source: EBRD.
\(^1\) Defined as the ratio of cash revenue to total amount billed.

bilitation of power generation assets.\(^{12}\) This is with a view to limiting the amount of capacity tied up under long-term contracts at the time of market liberalization. Once the institutional framework is in place, assets may be sold outright or rendered under management contracts or concessions, and free entry of private companies into the power generation sector may be permitted.

- **Tariff reform**: Tariffs should be raised to cover long-term costs and to reduce any cross-subsidy element, while taking care to ensure that customers can afford to pay.

- **Market liberalization**: Typically, this can be achieved by allowing third-party network access. Generators would compete with each other for bilateral contracts with large consumers for the supply of power. In countries with strong institutional capacity and where cash collection is not a problem, it may be feasible to introduce power pools, whereby a central body takes bids to supply from generators and determines the cheapest plant configuration to meet power demand. It subsequently requests this plant to supply the network, collecting revenues from distribution companies and large consumers and making payments to generators accordingly. There are substantial, and often prohibitive, technical requirements (for example, data, communications, and software equipment) and institutional requirements to operate a pool successfully.

With respect to the best order of implementation for these measures, it is crucial that a sound regulatory framework be in place prior to privatization and that tariffs have been increased to at least cover operating costs. Furthermore, when privatization/private sector participation occurs, it should involve strategic investors in order to maximize privatization revenues, to secure financing for necessary investments and to strengthen incentives for improved efficiency. Privatization of the distribution network should occur not later than privatization of power

\(^{12}\) See Kennedy, Fankhauser, and Raiser (2003) for discussion.
generation facilities when payment discipline is a problem. This is because privatization of power generation when there is low cash collection is likely to produce low revenues from sales and may not support necessary investments. This could in turn lead to increasing political objections to such changes. Regarding liberalization, this should be the last step, undertaken after industry restructuring, the setting up of a regulator, and the introduction of the private sector. The industry structure at the end of the reform process is represented in Figure 11.1.

**Figure 11.1. Reformed Structure of Electricity Sector**

- Competing generating companies
- Regulated transmission company
- Regulated distribution companies
- Consumers

*Source: EBRD.*

**Reform Progress in CIS-7 Countries**

What reform progress has been achieved to date in the CIS-7, and what lessons can be drawn from this? In Georgia and Moldova, industry restructuring has taken place, independent sector regulators have been introduced, and the private sector has been introduced to distribution (in both countries), and to generation (in Georgia). The challenge in both countries is to consolidate reform through the privatization of remaining state-owned distribution companies, thus securing financing to cover ongoing operation and capital costs. The key lesson from these experiences is that reforms cannot stop halfway. Unless incentives for
efficiency improvements and better cash collection are introduced along the whole chain from production to distribution, the financial viability of the sector will continue to be impaired.

Armenia embarked on a path similar to Georgia and Moldova, with unbundling and the creation of an independent regulator. Two attempts to privatize distribution companies—one through a tender and the other through negotiation with a strategic investor—failed. Recently, distribution networks were sold to a private investor with limited power sector experience. The challenge now is for the regulator to support this investor, providing a stable environment for the turnaround of the distribution company. In time, the challenge will be to introduce the private sector to the ownership and/or management of thermal generating plants.

Uzbekistan and the Kyrgyz Republic have started to restructure their power industries. In Uzbekistan, most entities in the power sector have been corporatized as separate entities. In the Kyrgyz Republic, four distribution companies, a generation company, and a transmission company have been set up. There has been limited progress in both countries as regards regulatory reform; strengthening of the regulatory framework therefore remains a key challenge. There are important questions of how assets will be bundled for private sector participation, and the form that this will take (whether through asset sales, management contracts, or concessions). In addition, decisions must be made on the type of market models that will be introduced.

In Tajikistan, reform progress has been made through corporatization of the country’s power utilities, though further steps toward commercialization have yet to be taken. Prices are still the furthest away from cost recovery among the CIS-7 countries, and quasi-fiscal deficits in the energy sector are a very considerable drain on public resources.

The Regional Dimension
In addition to institutional arrangements that would facilitate private sector investment, other reform challenges relate to the institutional framework for the development of regional energy markets. If, as argued above, regional energy trade would unlock significant efficiency gains and thus reduce the extent to which prices need to rise to cover production costs, then institutional reforms should pay attention to the conditions necessary for such trade to take place.

A prerequisite for any power market is a grid code (technical terms and conditions for market participants); without this system integrity is jeopardized. In a regional market context, national grid codes should be at least mutually consistent, although ideally there would be a regional grid code. The point here is that national authorities should not develop grid codes in isolation. Coordination might be achieved here through a regional regulators association, possibly supported by international financial institutions (IFIs) and bilateral donors.
A second prerequisite for any market is a cost-reflective transmission tariff methodology—transmission tariffs should cover costs and, in some circumstances, should reflect geographical differences in costs. In a regional context, questions arise over how system operators in transit countries should be compensated for transmission costs occurring due to international trade. Charging mechanisms here should be cost based, that is, based on the underlying flows of electricity (as opposed, for example, to distance based or based on the number of countries between trading parties).

Another important area is whether transmission costs are levied on generators or consumers: if in one country generators are charged while in another consumers are charged, the result could be double charging for trading parties, something that would undermine economic trade. A harmonized approach is required here: all countries should agree, for example, that transmission charges are to be levied on generators. As in the case of grid codes, a regional regulators association, supported by IFIs and bilateral donors, could be an appropriate forum to achieve harmonization.

Mechanisms for coordinating investments in a regional context should be in place, given that these may be both substitutes and complements; for example, a transmission investment strengthening links between countries might substitute a generation investment in an importing country, and might complement a generation investment in an exporting country. It should also be noted that investments may require sovereign involvement (debt or guarantee), particularly in the medium term before industry reform has been fully implemented. Given that sovereign debt capacity is typically limited, these investments should be prioritized: countries may have to choose, for example, between domestic generation investments and regional transmission investments. The mechanisms for these choices should be good information—a regional system study—and cooperation between governments. In the medium term, coordination can be achieved through harmonization of regulatory rules by national regulators.

Regarding market rules, bilateral contracts are likely to be the most appropriate model for liberalization, given the cash collection problems in CIS-7 countries. For noncontracted demand, a balancing market\(^3\) could help to ensure that this is met at minimum cost. A regional balancing market would support impartial dispatch (i.e., no favoring of generators on the basis of nationality). To the extent that this is not politically feasible, coordination between national markets would be required.

**Conclusions and Key Policy Recommendations**

The CIS-7 countries currently do not make the best use of their rich natural resource endowments and of the potential for mutually beneficial regional trade in energy and water that results from the distribution of these endowments across countries. This paper has argued that a key reason is the absence of cost-

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\(^3\) See Kennedy, Fankhauser, and Raiser (2003) for discussion.
reflective energy and water pricing, both on the domestic market and in existing trade between countries.

The failure to raise energy prices on the domestic market to cost-recovery levels has led to huge quasi-fiscal deficits in the energy sector, which have drained scarce public resources and in many cases contributed significantly to these countries' current debt problems. Low domestic cash flows have discouraged investment and regional trade, and have led to an inefficient drive toward self-sufficiency in energy supply.

The lack of cost-reflective prices for primary energy, water, and power in bilateral trade results in the wrong incentives as regards the mix between thermal and hydro generation and the use of water for irrigation. The low price of water for downstream countries encourages overuse in agriculture, while at the same time encouraging upstream countries to restrict exports, thus creating tension. Energy prices below cost-recovery levels distort the incentives for private power and thereby also preserve the inefficient regional allocation of water resources.

Any solution to the present problems will therefore need to start with domestic energy price adjustments. The CIS-7 countries vary in the extent to which price reform has progressed, with the Caucasus countries and Moldova being the most advanced, and the Kyrgyz Republic, Tajikistan, and Uzbekistan lagging the farthest behind. In parallel, efforts should be increased to move toward cost-reflective pricing in the trade of primary energy and water resources between CIS states. In this regard, the water and energy nexus in Central Asia represents an urgent, if politically sensitive, challenge.

In addition to tariff reform, restored financial viability will require improved payment discipline, which in turn will require private sector participation in distribution. Evidence suggests that the institutional framework for private participation is key and that a strong regulatory framework is required to provide confidence to investors. In this respect, there is scope for strengthening regulatory institutions in all CIS-7 countries, as a tradition of independent regulation has not yet been established. Tariff reform will require complementary changes in social support for power to remain affordable for poorer groups. Again, progress has been limited here, and there exists scope for improvement through the introduction of lifeline tariffs or targeted subsidies. Changed end user prices would provide a basis for the mobilization of investment financing and for trade between countries. Immediate price increases, complemented by progressive strengthening of regulation, would provide a good signal to investors and would go a long way to providing the cash flows necessary to support trade.

Price reforms, both domestically and in regional energy and water trade, are politically difficult. Governments need to be sensitive to social concerns if price increases are to be sustainable. At the same time, in many CIS-7 countries the deterioration of the infrastructure has proceeded to a point where failure to solve the financial crisis in the energy sector presents a significant political risk in its own right. The looming crisis may impart a sense of urgency to governments to move forward rapidly with price adjustments, and IFIs should stand ready to
support the process with targeted assistance to the poor, as well as financing for critical investments.

Finally, as the experience of the region shows, there are clear benefits to choosing an institutional arrangement that is commensurate with implementation capacity. When the tradition of independent regulation is weak, it may be better to introduce the private sector gradually through management contracts and aim to attract fresh private capital only once a track record of regulation has been established and the energy sector has begun to generate positive operational cash flows.

Cheap energy was one of the motors of socialist industrialization. Overcoming this legacy is one of the central challenges of transition. Failing to address the issue could jeopardize the prospects for sustainable growth for years to come.

References


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