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Georgia
Public Expenditure Review

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CURRENCY EQUIVALENTS
(as of January 1996)

Currency Unit	=	Lari
US$1	=	1.23

WEIGHTS AND MEASURES
Metric System

ABBREVIATIONS AND ACRONYMS

CIS	-	Commonwealth of Independent States
CPI	-	Consumer Price Index
EU	-	European Union
EF	-	Employment Fund
FSU	-	Former Soviet Union
GDP	-	Gross Domestic Product
GFS	-	Government Finance Statistics
IMF	-	International Monetary Fund
IMR	-	Infant Mortality Rate
NGOs	-	Non Governmental Organizations
OECD	-	Organization for Economic Cooperation and Development
O&M	-	Operations and Maintenance
PIP	-	Public Investment Program
UFSS	-	United Fund for Social Security
WDR	-	World Development Report

GEORGIA - FISCAL YEAR

January 1 - December 31

Preface

The preparation of this report was managed by Ana Revenga and Michelle Riboud. The study draws on background papers prepared by Arup Banerji (Government Program & Employment), Gary Burtless (Social Protection), Stephen Lister (PIP), François Orivel (Education, Science), Chandra Pant (Infrastructure), and H. Barnum and Laura Rose (Health). The report also benefited from contributions by Afsaneh Farzin, Hafez Ghanem, Pedro Taborga, Marijn Verhoevens and Vlado Vucetic. Kyle Peters and Jeff Hammer were peer reviewers. Una Raymond assisted with document preparation. The report was prepared under the general direction of Wafik Grais (Division Chief) and Basil Kavalsky (Director). The mission team wishes to thank the Georgian authorities for their excellent support and cooperation and their useful comments and discussion on an earlier draft.

REPUBLIC OF GEORGIA
PUBLIC EXPENDITURE REVIEW

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The breakdown of government finances in Georgia is unlike anything seen elsewhere in the Former Soviet Union. Following independence, in a context of economic collapse, civil conflict and political chaos, tax revenue virtually disappeared. By 1993, total revenues had fallen to 2.3 percent of GDP, covering barely 6 percent of total expenditure. The collapse of government revenues has implied drastic cuts in the financing of key public services. On a per capita basis, spending on education and health is now well below the average for the the rest of the region, and below levels seen in much of the developing world. Spending on maintenance of essential infrastructure has also basically disappeared.

Table 1: Per Capita Spending on Education and Health for Selected Countries

Country	GDP per capita (US$)	Population (millions)	Education $ p. cap	Education % GDP	Health $ p. cap	Health % GDP
Armenia	570	3.7	6	1.0	7	1.2
Sri Lanka	600	17.2	17	2.8	8	1.4
Indonesia	740	187.2	12	1.6	3	0.4
Bolivia	760	7.1	22	2.9	14	1.8
Moldova	1060	4.4	63	6.0	41	3.9
Lithuania	1320	3.7	51	3.9	41	3.1
Greece	7390	10.4	228	3.7	358	3.2
Georgia	**440**	**5.4**	**4**	**0.9**	**3.3**	**0.8**

Source: World Development Report 1995.

The challenge for Georgia to deliver key public services is enormous. With revenues projected to reach only 9-13 percent of GDP during the 1996-98 period, the pressure to maintain a tight expenditure program will continue. On the other hand, the government clearly needs to make some essential investments in the economy (in human capital and infrastructure) to ensure sustained growth and the continued welfare of its population. Georgia will not be able to meet this double challenge without a thorough redefinition of the role of the state in its economy. Public expenditure policy has an important role to play in fostering this change.

A sustainable fiscal framework

The main constraint Georgia faces in designing its public expenditure policy is the availability of resources. With little ability to borrow domestically and limited foreign exchange reserves, the government has only two sources of financing for its budget deficit: central bank credit and foreign borrowing. However, the extent to which it can rely on either one is greatly constrained by the need to consolidate the progress made against inflation, on the one hand, and by creditworthiness considerations on the other.

To consolidate the stabilization, Georgia will need to maintain a tight fiscal program, which aims to reduce the budget deficit to 3 percent of GDP by 1998, and to under 1 percent by 2004. This degree of fiscal discipline is necessary to reduce public dissaving and restore positive domestic savings in the economy by 1997. Higher domestic savings are critical to the recovery of domestic investment that is needed to sustain growth. Reducing public dissaving is also crucial to improving Georgia's external accounts. Lower fiscal deficits would lead directly to significant improvements in the current account—from a deficit of 15.3

percent of GDP in 1995 to 1.7 percent by the year 2004. This, in turn, would contribute to lessening Georgia's dependence on foreign inflows, and would keep Georgia's external obligations within the limits of its ability to pay. Even with increased domestic savings, however, external financing needs will remain substantial: gross financing requirements for 1996-2004 are projected at about US$420 million per year. The bulk of these resources would have to come from official sources, initially on concessional terms.

Table 2: A Sustainable Fiscal Framework

% of GDP	1995	1996	1997	1998	2000	2004
GDP growth rate	2.8	8.0	10.0	10.0	8.0	5.0
Current Account (Excld Grants)	-15.4	-7.2	-5.4	-4.2	-3.1	-1.7
Domestic Savings	-8.8	-0.6	3.6	7.8	12.4	17.5
Investment	3.7	5.1	8.0	11.2	14.7	18.4
o/w: Public	1.0	1.2	2.2	2.9	4.1	4.8
Fiscal Deficit (Excld Grants)	-7.5	-4.2	-3.8	-3.5	-3.0	-1.0
Debt Service after rescheduling/Exports	28.6	10.7	28.0	11.8	20.4	27.9
Total Debt/Exports	241.9	248.7	245.5	242.2	228.9	186.6

Can Georgia sustain larger fiscal deficits?

Whether a higher level of spending could be sustained over the medium term would depend on how the incremental deficit was to be financed, and on the impact of additional spending on growth. If higher spending were to lead to a higher growth rate—for example by allowing for more public investment in high-return infrastructure—a higher fiscal deficit may indeed be sustainable. However, this argument can be easily oversold: even if an investment has a high return (and not all public investments do) the government must be able to capture part of it if the increase is to be self-sustaining. In the case of Georgia, this would require a significant improvement in the government's ability to collect revenues from the private sector through cost-recovery and taxes.

Table 3: Key Creditworthiness Indicators under a Larger Fiscal Deficit Scenario

as % of GDP	1996	1997	1998	1999	2001	2004
Financed via external borrowing:						
Fiscal deficit (excl. grants)	6.0	6.6	6.2	6.4	5.4	4.8
Current account (excl. grants)	-9.8	-7.5	-6.5	-7.2	-6.9	-6.1
Total DOD (US$M)	1462	1783	2147	2585	3587	5240
Debt Service after rescheduling/Exports	10.7	29.3	14.7	17.5	41.0	60.5
Financed through credit expansion:						
Fiscal deficit (excl. grants)	6.1	7.0	6.8	6.8	4.4	3.0
Current account (excl. grants)	-9.8	-6.6	-5.7	-5.3	-4.7	-4.3
Total DOD (US$M)	1462	1734	2081	2463	3522	5992
Debt Service after rescheduling/Exports	10.7	29.3	14.5	16.6	34.7	56.4

A larger fiscal deficit path could be financed either through an expansion of credit from the central bank, through increased external borrowing, or through some combination of both. Financing a larger deficit path through foreign borrowing *on commercial terms* would add to Georgia's already large debt burden, and make it difficult for the country to meet its debt service obligations. Even a relatively modest increase in the fiscal deficit of 2 to 3 percentage points per year, would more than double key debt and creditworthiness within a ten year period. The current account deficit would double relative to the sustainable scenario. To finance a larger external imbalance, Georgia would have to accumulate twice as

much debt; debt service to exports would increase to 50 to 60 percent within ten years. Given this scenario, it is highly unlikely that commercial external financing would be available. Foreign borrowing on commercial terms is not a viable financing option for Georgia.

A larger deficit path could also be financed by an expansion of credit from the central bank to the government. Given Georgia's recent hyperinflation history, however, faster credit growth could quickly lead to more inflation. Higher total spending and higher inflation would in the short term work to appreciate the real exchange rate, and lead to a worsening of the current account. In the medium term, slower export growth would also feed back to lower total GDP growth. The total stock of debt would reach US$ 6 billion and debt service to exports would increase to 56 percent.

⇒ ***Given its already high debt burden and the legacy of high inflation, the government has very little scope to relax its fiscal stance: it can increase its aggregate spending envelope only to the extent that it can pay for it out of increased revenues. Running a fiscal deficit higher than 2-3 percent of GDP is financially unsustainable over the medium term.***

Additional external financing on concessional terms could play a critical role in relaxing this severe resource constraint. Such financing would allow Georgia to address its key investment needs and provide an additional spurt to growth. By underpinning necessary public investment, concessional financing would also help draw in private flows, and lay the basis for improving Georgia's commercial creditworthiness in the medium term. The amounts needed are not huge: an additional US$ 80 to US$ 110 million of concessional financing per year over the 1996-1998 period would be sufficient to allow an increase in public investment of about 2 percent of GDP per year.

The New Role of Government

Rebuilding Government

Until now, the government has reacted to the drop in revenues on a "day-to-day" basis: addressing the most pressing needs with available resources, and delaying all other spending until it becomes unavoidable. Energy payments, and the necessity of paying wages and social entitlements have dominated the spending agenda, leaving little room for maintenance or more medium-term investments. A more careful expenditure strategy is needed, to concentrate resources only on those minimum public functions that absolutely must be met, while putting in place a framework that will allow other priorities to be addressed by the private sector.

⇒ ***Priority expenditures are those in which there is both a strong case for public intervention, and in which the costs of delaying spending are highest. As a first priority, these include spending on pure public goods—public safety, the legal framework—and on mixed private/public goods for which expenditure needs are urgent—emergency maintenance in the power sector, critical maintenance of main roads and water distribution/sewage systems, and expenditures on basic education and essential public health.***

Comparing this set of priorities to the current allocation of spending suggests that some major expenditure shifts are needed:

- ***An increase in the resources devoted to priority public good activities: public order and safety, the court system, and further development of key economic institutions and public administration.*** These expenditures presently account for about 15 percent of the total spending budget or 2 percent of

GDP. This is approximately one-half the average level for developing countries. A reasonable goal is to aim for devoting somewhere between 3.5 and 4 percent of GDP to these tasks.

- ***A withdrawal from directly productive activities in areas such as agriculture, forestry, industry, media and film.*** Government involvement in these areas should be primarily indirect, and focus on provision of an appropriate institutional and regulatory framework. In agriculture, which will remain a priority sector, expenditures should focus on: (a) institutional support to land reform; and (b) quality and animal health control. The total share of spending going to economic services or "national economy" should probably not change much.

- ***An increase in the resources devoted to maintenance and rehabilitation of existing infrastructure.*** The top priority in this regard is addressing the backlog of maintenance needs in critical infrastructure sectors— power, roads and railways. This will demand a significant up-front investment of resources: about US$40 million per year for maintenance and rehabilitation of the main road system , and another US$ 50 to 60 million per year for the power sector. To accomodate this, the share of resources devoted to capital expenditure will have to increase significantly to reach 18 to 20 percent of total spending by 1998.

- ***A reorientation of the social-cultural budget to focus primarily on education, health and social protection***, reducing expenditures on cultural activities, sports, and subsidies to the mass media. While there may be a case for public spending on some of those activities, these should not be given priority over health and education. Curtailing these secondary social expenditures would allow spending on critical health and basic education services to increase significantly, without a need to increase the total social-cultural spending envelope.

- ***Within education, health and social protection, a re-focusing of expenditures on the priority sub-sectors: public health and minimum essential clinical services, basic education, and a minimum social assistance program*** (which would include the current minimal, universal pension). This would ensure that public resources go to those activities where social returns are highest and would concentrate resources on those services which the poor tend to use more.

- To make room for the increase in the share of spending going to pure public goods, ***the share of "other expenditures" will have to decline***. This should be facilitated by a gradual decline in interest payments after 1998, but ***will also require a reduction in unclassified, discretionary expenditures***.

Policies for expenditure reform

To achieve a better provision of public services within the overall spending constraint, reforms are needed in several critical areas:

- ***Improving government pay and employment practices***. The primary objective of civil service reform should be to reduce employment to an efficient minimum, while paying remaining employees reasonable wages. This will involve, at a minimum, a reduction in government employment of 5 to 6 percent per year over the 1996-1999 period. Assuming a moderate increase in the share of spending going to wages and salaries, such a reduction would allow the average public sector wage to converge to 75 percent of per capita GDP by 2004. To sustain a larger wage increase, however, more drastic cuts in employment would be needed.

- ***Widening private sector participation***. There is a whole range of goods that are supplied publicly but that can also be privately provided. Given its limited resources, the government should try to encourage private sector participation all of these areas. Putting in place an adequate regulatory framework for these activities and facilitating entry is of utmost priority in this regard. The areas in which the private sector should play a significant role over the medium term include: transport services, basic utilities, communications, higher education, clinical health services, and social insurance (through private pension schemes).

- ***Increasing cost recovery***. Where the state is to retain a role in provision, it should seek at least partial cost recovery. For most public services, cost-recovery levels are currently very low. This is due both to low collection levels (energy) and because user charges are too low (transport, education). Household tariffs on electricity are one-half below the supply cost; more importantly, collections are abysmally low, in the range of 10 to 15 percent. Charges to enterprises are higher, but on the whole the electricity entities are recovering only 30 to 40 percent of costs. Basic municipal services, such as trash collection or urban transport, are also heavily subsidized, with charges recovering between 2 and 40 percent of costs, depending on the municipality. Cost-recovery should be increased in all of these areas.

Table 4: Priority Maintenance and Rehabilitation Needs in Selected Sectors, 1996-98
(in millions of US$)

Emergency Maintenance (1996)	55.7
Health Facilities	0.5
Main roads	6.6
Power - thermal	12.2
Power - hydro	36.4
Full Rehabilitation (1996-98)	266.6
Health Facilities	9.2
Roads	86.4
Power - hydro	63.0
Power - thermal	60.0
Power - transmission & dispatch	33.0
Tbilisi - roads	15.0

- ***Increasing maintenance and rehabilitation expenditures***. To prevent existing infrastructure from deteriorating beyond a point of recovery, the government needs to allocate significantly more resources to meeting its maintenance needs. The short term goal for key infrastructure sectors should be that they operate on a commercial basis, and generate enough revenues through cost-recovery to cover at a minimum their O&M costs. However, it is unlikely that in the short-term, cost recovery will generate sufficient resources up-front to address the backlog of maintenance and rehabilitation needs. Some budgetary resources will have to be allocated to these tasks. The bulk of these resources should be allocated to the backlog of delayed maintenance and urgent repair work, followed by rehabilitation of existing assets.

Chapter 1: The Macroeconomic Constraint

A. The Collapse of Government Finance

1. The breakdown of government finances in Georgia is unlike anything seen elsewhere in the Former Soviet Union (FSU). Following independence, in a context of economic collapse, civil conflict and political chaos, tax revenue virtually disappeared. By 1993, total revenues had fallen to 2.3 percent of GDP, covering barely 6 percent of total expenditure (on an accrual basis). This dismal revenue performance continued into the first half of 1994: during January - June 1994, revenues represented only 2.8 percent of GDP, or 5.4 percent of current expenditures. At the same time, the expenditure program was heavily burdened with subsidies (most notably for energy and bread, which in the first half of 1994 amounted to over 30 percent of GDP). The result was a soaring budget deficit, which reached 26 percent of GDP in 1993. The overall deficit increased further during the first half of 1994, to reach 44 percent of GDP, before the implementation of the Government's adjustment program restored some degree of fiscal balance (Table 1.1).

Table 1.1: Key Fiscal Indicators, 1993-95 (% of GDP)

	1993	Jan-Jun 1994	Jul-Dec 1994	1995
Total revenue	2.3	2.8	4.5	5.2
Grants	7.4	5.8	3.1	2.0
Expenditure and net lending	35.9	52.3	19.5	12.9
Accrual deficit	26.2	43.7	11.9	5.6

Source: IMF/World Bank on the basis of data provided by national authorities.

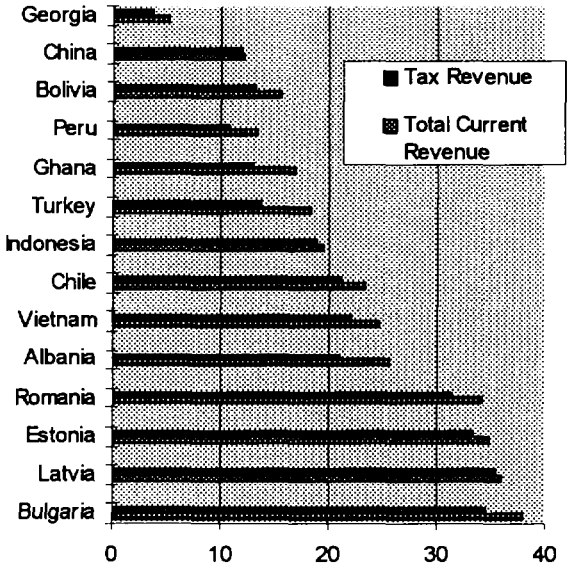
2. To finance the deficit the Government relied mainly on the accumulation of large domestic and external arrears, and on central bank credit. The unsustainable fiscal situation was largely accommodated by monetary policy, fueling a hyperinflation of 60-70 percent per month; this, in turn, led to a depletion of reserves and a sharp depreciation of the domestic currency. The external debt mounted to unsustainable levels. By the end of 1994, three years after entering independence with modest external obligations, the country had accumulated a stock of external debt of almost US$1 billion—equal to almost 80 percent of Georgia's GDP. The huge imbalance between government revenues and expenditure needs, moreover, forced the Government to increase its reliance on international humanitarian assistance, which at the end of 1994 still represented nearly 45 percent of government revenues.

3. Faced with limited budgetary resources, the Government ceased to perform many of its basic functions—most importantly those of maintaining law and order, providing basic safety net protection for the poor, and maintaining critical infrastructure. Expenditures on health and education declined from 12 percent of GDP in 1991 to less than 2 percent in 1994—a decline of over 90 percent in real terms. Spending on maintenance of essential infrastructure basically disappeared. The result was a marked deterioration in many measures of social welfare: infant mortality rates (IMRs) rose by 13 percent to reach

21.4 in 1993;[1] life expectancy declined for both men and women, and the age-adjusted mortality rate rose by 18 percent; net school enrollments fell by 11 percent; and critical transport assets such as the main road system (the main east-west road from Azerbaijan to the Black Sea and north-south road from the Armenian to the Russian borders) fell into a state of disrepair.

4. Politically and economically, the situation has improved markedly since late-1994. Following the establishment of a cease-fire in Abkhazia, the Government was able to focus once again on the task of reforming and rebuilding the Georgian economy. With support from the IMF and the World Bank, the Government designed a successful stabilization and reform program. The cornerstone of the program was a drastic fiscal adjustment, accompanied by tight monetary policy. The impact has been impressive. The overall budget deficit, on an accrual basis, has been reduced from 26 percent of GDP in 1993 to about 6 percent in 1995, mainly through sharp cuts in expenditure. The ratio of revenue (excluding grants) to current expenditure has increased from 5.4 percent in the first half of 1994, to 27.2 percent in the second half, and to 56.1 percent in 1995. The measures supporting this adjustment included the reduction of subsidies through price increases for bread, gas and electricity;[2] improved monetization of wheat grants; a wide range of measures to improve tax administration and tax policy; and a close to 40 percent reduction in the number of government positions during 1995.

Figure 1.1: Revenues as % of GDP, 1994



5. Despite this initial success, Georgia's fiscal situation remains precarious. Notwithstanding government actions to increase tax collections, revenues are still extraordinarily low: estimates for 1995 show tax revenues reaching only 3.7 percent of GDP; the lowest tax to GDP ratio among the former FSU economies, and below the level observed in some of the poorest countries in the world (Figure 1.1). As a result, Georgia continues to depend on external, mainly in-kind, grants for a quarter of its total revenues (nearly 2 percent of GDP).

6. On the expenditure side, fiscal adjustment has translated into an almost unparalleled compression of public spending. Total expenditure has fallen from 52.3 percent of GDP in the first half of 1994 (24 .2 percent for the year as a whole) to 12.9 percent in 1995 (Table 1.1). While essential to restore fiscal balance, such a compression of spending has implied drastic cuts in the financing of key public services. On a per capita basis, spending on education and health is now well below the average for the rest of the region, and below levels seen in much of the developing world (Table 1.2). Given that one of Georgia's sources of comparative advantage is its relatively high level of human capital, this is a source of concern. Spending on maintenance of essential infrastructure has also basically disappeared. In 1995, for example, outlays for routine road maintenance represented less than

[1] Compare to IMRs of 13-16 for the Baltics, Belarus and Ukraine; of 12-14 for much of Central and Eastern Europe, and of 21 for Russia.

[2] Subsidies were reduced from close to 39 percent of GDP in the first half of 1994 to less than 1 percent in 1995.

one percent of the estimated minimum needs. Similar patterns were seen in other key infrastructure sectors, such power, where improper operational practices and insufficient maintenance has led to a serious deterioration of facilities.[3] Inadequate and unreliable electricity supply has become one of the major bottlenecks in the economy; yet because of the financial deterioration of the electricity company, few if any resources are being devoted to maintenance mad rehabilitation. There is a real concern that current levels of spending on these essential public functions may prove insufficient to ensure economic recovery and may hamper Georgia's prospects for long-term growth.

Table 1.2: Per Capita Spending on Education and Health for Selected Countries

Country	GDP per capita (US$)	Population (millions)	Education $ p. cap	Education % GDP	Health $ p. cap	Health % GDP
Armenia	570	3.7	6	1.0	7	1.2
Sri Lanka	600	17.2	17	2.8	8	1.4
Indonesia	740	187.2	12	1.6	3	0.4
Bolivia	760	7.1	22	2.9	14	1.8
Philippines	850	64.8	24	2.9	5	0.6
Moldova	870	4.4	52	6.0	34	3.9
Lithuania	1320	3.7	51	3.9	41	3.1
Greece	7390	10.4	228	3.7	358	3.2
Georgia	**440**	**5.4**	**4**	**0.9**	**3.3**	**0.8**

Source: World Development Report 1995. Data for Georgia refer to 1995.

7. There are many distortions in the allocation of public expenditure which contribute to lowering the efficiency with which scarce public resources are used. Because of Georgia's energy deficit, a disproportionate amount of public resources must be devoted to utility payments: over a third of the educational budget in 1995, for example, was allocated to this task. This made it necessary to squeeze all other expenditures, and most notably wages. In 1994, wages and salaries of public employees represented only 3 percent of total expenditure, or a miniscule 0.8 percent of GDP. Since then, the share of wages and salaries has increased to about 13 percent of total expenditure (or 1.7 percent of GDP); but remains well-below the norms observed in other countries.[4] Combined with considerable overemployment in the public sector, this has translated into very low average wages (about US$12 per month in December 1995). Such meager levels of pay cause government workers to allocate much of their time to alternative jobs, to the detriment of public services. Another source of inefficiency is that many public services (especially at the municipal level) are still being provided in a highly subsidized manner, when scarcity of resources would warrant greater cost-recovery. Even when services are provided at a nominal charge, non-payment means *de facto* free provision: as of February 1996, collections on electricity payments from households were just 15 percent of supply. In the energy sector in particular, lack of payment discipline by users has led to the financial deterioration of the utility companies, and to the consequent deterioration of services. The result is a vicious circle in which lack of resources reduces the amount and quality of services, which in turn reduces people's willingness to pay and lowers collections. With resources as limited as Georgia's, the failure to allocate spending efficiently is particularly costly.

[3] Sakenergo's 1994 budget, for example, allocated less than 0.3 percent of total expenditure to repair and maintenance (about 3 million lari).

[4] The average for East Asia, Latin America and Africa is 33 percent of total expenditures (or 6-8 percent of GDP), whereas in the OECD public wages account for about 25 percent of total expenditure (8-10 percent of GDP). In the Baltic countries, the corresponding figure ranges from 15 percent of total expenditure in Estonia to 21 percent in Latvia.

8. The challenge for Georgia to deliver key public services within its very constrained resource envelope is enormous. With revenues projected to reach only 9-13 percent of GDP during the 1996-98 period, the pressure to maintain a tight expenditure program will continue. This is especially so if Georgia is to become creditworthy, and hence eligible for receiving significant foreign financing. On the other hand, the government clearly needs to make some essential investments in the economy (particularly those in human and physical capital) to ensure sustained growth and the continued welfare of its population. Georgia will not be able to meet this double challenge without a thorough *redefinition of the role of the state* in its economy.

9. In many ways, the decline in the size of government in Georgia may prove to have a silver lining. Unlike other countries in the FSU, the Georgian economy is not burdened by a huge and omnipresent government which absorbs and wastes resources. And given the collapse of government finance, there should be fewer vested interests in maintaining the old state regime. Moreover, the political economy of many key reforms, such as the reform of the pension system, could be facilitated to some degree by the earlier collapse. All of this should make the transition to a market economy easier. However, none of it will prove ultimately beneficial unless the Government is able to fulfill its key mandate of delivering sustained growth and improvements in the living standards of the population. Public expenditure policy has an important role to play in achieving this goal.

B. Medium-Term Fiscal Framework

10. The main constraint Georgia faces in designing its public expenditure policy is the availability of resources. With little ability to borrow domestically and limited foreign exchange reserves, the government has only two sources of financing for its budget deficit: central bank credit and foreign borrowing. However, the extent to which it can rely on either one is greatly constrained by the need to consolidate the progress made against inflation, on the one hand, and by creditworthiness considerations on the other. In this sense, the government has little scope to relax its fiscal stance: how much it is able to increase expenditures over the next few years will depend primarily on its ability to pay for them through increased revenues, and to a lesser extent on the availability of external financing on purely concessional terms.

11. This section first presents a medium-term fiscal framework that is consistent with Georgia's projected stream of revenues and expected foreign inflows. It then considers whether a higher spending path could be sustained, and whether there are viable sources of financing for that incremental spending.

A sustainable fiscal framework

12. To maintain macroeconomic stability, Georgia needs to ensure that its medium-term fiscal position is compatible with its balance of payments, monetary and inflation targets. Table 1.3 shows the evolution of key macroeconomic variables under a sustainable fiscal policy scenario. The key characteristic of this scenario is that it assumes a tight fiscal program, with deficits declining to 3 percent of GDP by 1998, and down to under 1 percent by 2004. Such fiscal discipline is a prerequisite to reducing public dissaving, and to restoring positive domestic savings in the economy by 1997. This, in turn, is critical to the recovery of domestic investment that is needed to sustain growth. Total domestic investment needs to triple over the next few years if Georgia is to sustain growth rates of 8-10 percent per year. This cannot happen without a significant increase in government savings.

13. Reducing public dissaving is also crucial to improving Georgia's external accounts. With a total stock of debt of about US$1.0 billion (nearly 80 percent of GDP), and a current account deficit of more than 15 percent of GDP, Georgia is at present very far from being creditworthy. As a result, its access to

external financing from anything but official sources (and on concessional terms) is very limited. However, concessional flows will not be available indefinitely. In anticipation of such flows drying up, Georgia needs to move toward restoring some degree of commercial creditworthiness. As illustrated by Table 1.3, lower fiscal deficits would lead directly to significant improvements in the current account—from a deficit of 15.3 percent of GDP in 1995 (excluding grants) to 1.7 percent by the year 2004. This, in turn, would contribute to lessening Georgia's dependence on foreign inflows. As a result, total debt to GDP would decline gradually over the period, from 39.5 percent in 1995 to just under 20 percent in 2004. Total debt to exports would fall in parallel from 250 percent in 1996 to 187 percent in 2004, and debt service to exports would remain below 30 percent.

Table 1.3: A Sustainable Fiscal Framework

	1995	1996	1997	1998	2000	2004
Real Growth Rate						
GDP	2.8	8.0	10.0	10.0	8.0	5.0
Inflation (end of period)	64.8	23.1	8.5	6.6	6.2	6.2
As % GDP						
Current Account (Excld Grants)	-15.4	-7.2	-5.4	-4.2	-3.1	-1.7
Domestic Savings	-8.8	-0.6	3.6	7.8	12.4	17.5
Investment	3.7	5.1	8.0	11.2	14.7	18.4
o/w: Public	1.0	1.2	2.2	2.9	4.1	4.8
Government Revenue	6.9	9.4	11.3	12.7	15.5	17.6
o/w: Tax Revenue	3.6	6.7	8.1	9.7	13.2	14.9
Government Expenditure	12.5	12.8	14.5	15.7	18.2	18.5
Fiscal Deficit (Incld Grants)	-5.7	-3.4	-3.1	-3.0	-2.7	-0.9
Fiscal Deficit (Excld Grants)	-7.5	-4.2	-3.8	-3.5	-3.0	-1.0
Total Debt/GDP	37.7	27.0	24.7	24.4	23.4	19.5
Debt Service after rescheduling/Exports	28.6	10.7	28.0	11.8	20.4	27.9
Total Debt/Exports	241.9	248.7	245.5	242.2	228.9	186.6

14. Achieving these fiscal targets will not be easy as they require both significant improvements in revenue mobilization, and continued control over expenditure. On the revenue side, the projections assume that efforts to expand the tax base via the removal of exemptions and to improve tax administration are successful. This would allow tax revenues to increase to 6.7 percent of GDP in 1996, and reach nearly 15 percent by the year 2004. Total revenues would increase in parallel from 9.4 percent of GDP in 1996 to 17.6 percent by 2004. Although modest by most countries' standards, achieving even this level of government revenue would allow for a gradual recovery of expenditure, to reach 17 percent of GDP in 1998, and stabilize at 18-19 percent thereafter.

15. A tight fiscal program alone, moreover, will not guarantee the recovery of growth. Fiscal efforts need to be complemented by progress on the structural measures—privatization, trade liberalization, institution building—that are key to the development of a dynamic private sector. Equally important is that Georgia address the problems of its energy sector, which lie at that core of the economic collapse. A first priority in this regard is to enforce payment discipline, so that the energy companies can operate efficiently and deliver critical energy services, without which the economy cannot function. A second priority is to reduce the burden of energy imports—through a combination of increasing energy use

efficiency and developing domestic energy resources. The composition of public spending needs to change to reflect these needs: devoting more resources to institution building and indirect support of private production, while shifting out of directly productive activities (Chapter 2).

16. Even with improved revenue performance and increased domestic savings, Georgia's domestic resources will remain insufficient to finance its full expenditure needs. Substantial additional financing from external sources will continue to be needed. Average gross financing requirements for 1996-2004 are projected at about US$420 million per year. The bulk of these resources would have to come from official sources, and, at least initially, on concessional terms. Private foreign financing is exected to play an important role, but only in the medium term.

Can Georgia sustain larger fiscal deficits?

17. The deficit path projected in Table 1.3 leaves room for only a modest recovery of public expenditure. But is there room for a bigger recovery of spending? In the absence of parallel improvement in revenue performance, higher spending would imply running a larger fiscal deficit. Whether this could be sustained over the medium term would depend on how the incremental deficit was to be financed, and on the impact of additional spending on growth. If higher spending were to lead to a higher growth rate—for example by allowing for more public investment in high-return infrastructure—a higher fiscal deficit may indeed be sustainable. However, this argument can be easily oversold: public investment can also be inefficient and generate low returns; more importantly, even if public investment has a high return, the government must be able to capture the additional returns if the increase is to be self-sustaining. In the case of Georgia, this would require a significant improvement in the government's ability to collect revenues from the private sector through cost-recovery and taxes.

18. In principle, a larger fiscal deficit path could be financed either through an expansion of credit from the central bank, through increased external borrowing, or through some combination of both. Financing a larger deficit path through foreign borrowing would tend to appreciate the exchange rate, encouraging imports and worsening the current account deficit. Direct foreign borrowing *on commercial terms* would also add to Georgia's already large debt burden, and make it difficult for the country to meet its debt service obligations. As illustrated by Table 1.4, *even a relatively modest increase in the fiscal deficit of 2 to 3 percentage points per year (to average 5.5 percent per year over the 1997-2004 period), would more than double key debt and creditworthiness within a ten year period.* The current account deficit would double relative to the sustainable scenario (remaining above 6 percent of GDP for the whole period). To finance a larger external imbalance, Georgia would have to accumulate twice as much debt; as a result, the stock of debt would climb to over 5 billion by the year 2004. Total debt to GDP ratios would reach 40 percent, and debt service to exports would increase to 50 to 60 percent within ten years. Given this scenario, it is highly unlikely that commercial external financing would be available. Foreign borrowing on commercial terms is simply not a viable financing option for Georgia at this time.

19. A larger deficit path could also be financed by an expansion of credit from the central bank to the government (or by a combination of increased credit and foreign borrowing). Faster credit growth, however, would quickly lead to more inflation. Under the best of scenarios—assuming fairly high money holdings relative to GDP and fast GDP growth— the government could finance a deficit increase of 1 to 2 percentage points of GDP through seignorage. Anything beyond that, however, would be inflationary. In the case of Georgia, moreover, and given its recent hyperinflation history, the inflationary impact of a credit expansion would probably be felt sooner. Higher total spending and higher inflation would in the short term work to appreciate the real exchange rate, damaging export growth and favoring imports. This would lead to a worsening of the current account. In the medium term, slower export growth would also

feed back to lower total GDP growth. A continued credit expansion, moreover, would ultimately require a devaluation of the nominal exchange rate, which would further fuel inflation. The illustrative projections suggest that under this scenario, the current account deficit would remain above 4 percent of GDP for the full period. The total stock of debt would reach US$6 billion and debt service to exports ratios would increase steadily to reach 56 percent. Inflation would remain stuck at above 20 percent.

Table 1.4: Key Creditworthiness Indicators under a Larger Fiscal Deficit Scenario

as % of GDP	1996	1997	1998	1999	2001	2004
Financed via external borrowing:						
Fiscal deficit (excl. grants)	6.0	6.6	6.2	6.4	5.4	4.8
Current account (excl. grants)	-9.8	-7.5	-6.5	-7.2	-6.9	-6.1
Total DOD (US$M)	1462	1783	2147	2585	3587	5240
Total Debt/GDP	30.9	29.8	31.0	33.6	37.6	42.6
Debt Service after rescheduling/Exports	10.7	29.3	14.7	17.5	41.0	60.5
Growth rate of GDP	8.0	10.0	10.0	8.0	8.0	5.0
Financed through credit expansion:						
Fiscal deficit (excl. grants)	6.1	7.0	6.8	6.8	4.4	3.0
Current account (excl. grants)	-9.8	-6.6	-5.7	-5.3	-4.7	-4.3
Total DOD (US$M)	1462	1734	2081	2463	3522	5992
Total Debt/GDP	30.9	28.7	27.5	26.4	24.3	25.6
Debt Service after rescheduling/Exports	10.7	29.3	14.5	16.6	34.7	56.4
Growth rate of GDP	8.0	10.0	10.0	8.0	6.0	2.5

20. These two alternative scenarios highlight the severe constraints facing Georgia's expenditure policy. The legacy of hyperinflation seriously limits the government's scope for financing larger deficits through central bank credit, while the possibility of borrowing domestically is still some years away. At the same time, Georgia's large stock of existing debt undermines its creditworthiness and precludes foreign borrowing on commercial terms. *In the absence of additional concessional financing or debt reduction, running a fiscal deficit higher than 2-3 percent of GDP is unsustainable over the medium term.*

Composition of expenditure.

21. While the sustainable scenario envisages a moderate increase in expenditures, total spending has to be kept within the available resource envelope, so as to allow for a reduction in the fiscal deficit to under 2 percent of GDP by the year 2001. The key to fulfilling essential public functions within this limited spending envelope will be to maximize the efficiency with which scarce resources are used. The composition of expenditures hence becomes particularly important. Because of this, the sustainable fiscal scenario envisages several key expenditure policy measures:

- An increase in public investment, which would rise from 1 percent of GDP in 1996 to 4.8 percent of GDP by 2004. This represents a minimal increase in investment, without which it would be difficult to sustain the projected high growth path. To accommodate such an increase in capital spending, it will be necessary to contain current expenditures.

- An increase in the share of expenditures going to wages and salaries, from 13 percent of total spending in 1996 to 20 percent by the year 2004 (Table 1.5). In combination with a rationalization of

government employment, this would allow for a substantial increase in the real public sector wage—a prerequisite to improving efficiency in the civil service.

- Successful reforms in the energy sector that ease supply constraints and allow for a gradual reduction of energy-related payments in the state budget. This would allow expenditures on other goods and services (which are primarily utility payments) to decline from their current level of 24 percent of total spending to under 20 percent, releasing resources that can be devoted to other critical activities.

- A reduction in extra-budgetary social security expenditures, as a result of pension reform. Given Georgia's age structure, pension liabilities will inevitably rise over the next three decades; financing these liabilities under the existing pay-as-you-go system will require either raising the already-high contribution rate or allocating more budgetary resources to financing the deficit of Pension Fund. Either option is undesirable: the first because it will distort the labor market further; the second because it would strain the total spending envelope.

Table 1.5: Projected Government Expenditure by Economic Classification, 1995-2004
(as percent of total expenditure, excluding net lending)

	1995	1996	1997	1998	2000	2004
Current Expenditure	0.92	0.91	0.85	0.82	0.78	0.74
Wages and salaries	0.14	0.13	0.15	0.17	0.18	0.20
Other goods and services	0.24	0.28	0.25	0.21	0.23	0.19
Transfers	0.09	0.09	0.10	0.11	0.11	0.11
Extrabudgetary social	0.12	0.14	0.12	0.10	0.07	0.06
Interest payments	0.13	0.07	0.08	0.07	0.06	0.06
Other expenditure	0.20	0.19	0.14	0.14	0.14	0.14
Capital Expenditure	0.08	0.09	0.15	0.18	0.22	0.26

Source: Annex 3.

22. What are the risks associated with the failure to implement these expenditure shifts? Less public investment would be reflected in lower quality infrastructure services to support the private sector, which would work against private investment, and risk lowering the overall GDP growth rate. A lower growth rate would, in turn, undermine the sustainability of the projected level of fiscal deficits, which would have to be adjusted accordingly. Similarly, the failure to successfully reform the energy sector would risk perpetuating the current situation, with a sizable fraction of government resources going to finance utility payments, to the detriment of public wages and other key elements of public expenditure. Continued energy problems, moreover, would constrain the development and growth of a private sector, and act as a disincentive to foreign investment. Failure to control mounting pension liabilities could risk blowing the spending ceiling; or require compressing other—more productive—social expenditure. All of these would lower the expected growth path.

A role for additional concessional financing

23. Given Georgia's extremely tight aggregate spending envelope, additional public spending could, at the margin and if directed at critical bottlenecks, be very productive. Incremental spending on key public investments in infrastructure, for example, could contribute to increasing the productivity of many private activities and to raising the growth path. Similarly, additional expenditure on building key market institutions (an appropriate legal framework and court system, for example), could have a big payoff in

terms of attracting private (both domestic and foreign) investment. But because resources are so constrained, and financing possibilities so limited, many of these key investments may not get made; or may be delayed for several years.

24. In this context, additional external financing on concessional terms could have an important role to play over the next few years. By relaxing the resource constraint, such financing could allow Georgia to address its key investment needs and provide an additional spurt to growth. By underpinning necessary public investment, concessional financing would also help draw in private flows, and lay the basis for improving Georgia's commercial creditworthiness in the medium term. In absolute terms, the amounts needed are not huge: an additional US$ 80 to US$ 110 million of concessional financing per year over the 1996-1998 period would be sufficient to allow the government to increase public investment by approximately 2 percentage points of GDP per year. Assuming that these resources were directed to high-return, high-priority activities, and assuming the government improves its capacity to capture part of the return through taxes, the payoffs to these investments amply should exceed the government's borrowing costs.

25. However, the need for additional concessional financing comes on top of already-identified needs of about US$420 per year, a substantial part of which would already have to be concessionary in nature. Georgia's ability to mobilize these magnitudes of concessional financing will require demonstrating a particularly strong commitment to reform, and putting together a prioritized and focused public investment strategy.

Chapter 2: The New Role of Government

A. Rebuilding Government

26. Unlike many other economies of the FSU, Georgia is faced with the task of rebuilding its government rather than reducing it. And it must do so while facing an incredibly severe revenue constraint which is unlikely to ease significantly in the near term. In such a context it has little choice but to limit its public interventions to a bare minimum—to those core functions which are essential to ensure the future growth and creditworthiness of the economy and an adequate level of welfare for the population. The task of defining these functions is not easy: the choice must combine economic criteria of efficiency with distributional considerations and social equity objectives. And given Georgia's limited revenues, it is bound to involve difficult tradeoffs between competing uses, all of which may have legitimate claims on public resources.

27. The definition of what constitutes a core function can be guided by two criteria . First, by the relative role of the private versus public sectors in a market economy (see Box 2.1). Government resources should not be wasted on services that the private sector can provide on its own. Instead, public intervention should concentrate on those activities that it does best, and where market and socially desirable outcomes diverge significantly. Second, spending allocations should be based on the relative urgency of the expenditure. Certain areas of public spending may be neglected for a period of time without irreversible damage; other less so. Taking this intertemporal dimension into consideration can help establish priorities. Expenditures on agricultural extension services, for example, may be part of a set of functions that the state ultimately wants to keep; yet if the state does not spend any money on these activities for a few years, the damage to agriculture will not be all that expensive to recoup. In contrast, two or three more years of neglect of basic maintenance could lead to the irreversible deterioration of Georgia's main roads, and a significant larger cost of reconstruction would have to be incurred to recoup the damage.

Box 2.1: The role of the private versus public sectors

In a market economy most economic decisions are made by the private sector on the basis of market forces. However, governments often do intervene in markets; usually to address what is perceived as a failure of the market outcome, or to pursue broader social equity and fairness objectives. The extent to which governments should or should not intervene has long been a subject of much debate. While there is no standard recipe for the precise mix of private versus public activities in a market economy, there is nevertheless broad consensus on the reasons for government intervention. Most economists would agree that a role for government is warranted in the following areas:

- Ensuring the provision of goods and services subject to market failure. This includes goods and services which private markets will not provide (public goods such as defense or law and order), or which they will provide in insufficient quantity (services such as immunization, for which private and social returns to the activity may differ).
- Establishing a legal, regulatory and policy environment to facilitate private sector activity and the effective operation of competitive markets.
- Pursuing poverty alleviation and other distributional objectives through income transfers and other measures to protect the poor.

Although these three arguments provide clear theoretical rationales for government intervention, in practice choices are much more difficult. Few goods are pure public goods; many more are mixed—goods that are supplied by private markets although in insufficient quantities, or goods that are supplied publicly but could be privately provided. Moreover, governments need to decide not only when and where to intervene, but also how they will do so. Should government provide a public good directly? Should it encourage its production indirectly? Or should it subcontract its provision to private firms? All these decisions have implications for the efficiency with which services are delivered, and for fiscal expenditure. For Georgia, *limited public resources dictate the need to maximize private sector participation wherever possible.*

The role of the private versus public sectors

28. The respective roles of the private versus public sector, and the distinction between public financing and public provision, can be used to derive a taxonomy of goods and services in terms of the importance of public sector involvement (Table 2.1). This taxonomy then provides a basis to prioritize items for Government spending. A *first priority* is spending on *pure public goods*—law and order, the legal framework, municipal lighting, the basic safety net; these the government will have to continue financing and providing, as the private sector largely cannot and will not do so. *Second*, are *"mixed" private/public goods* in which the public sector will retain a primordial role even in the medium term: the provision of basic health and education, the maintenance of the main road system, and water supply and sanitation services. *Third* are *"transitionally public" goods*, activities that are part of the public domain now but that are to be shifted to private ownership as soon as an appropriate regulatory and institutional framework is in place. This applies, most importantly, to energy services, but also to a number of educational and health services, telecommunications services, urban transport, and railways. Finally, there is a whole set of goods that can be adequately provided by the private sector, and on which the government should not waste its resources.

Table 2.1: A Taxonomy of Activities by the Degree of Public Sector Involvement

Public Sector Involvement	Activity
Pure public	Defense, Law and Order, Regulatory and Legal Framework, Social Assistance Municipal Streets and Lighting, Environmental Protection.
Public/Private	Education, Health ,Water Supply and Sewage, Highways, Social Insurance, Agricultural Extension.
Predominantly private w/ role for government	Electricity, Heating and Gas, Municipal Transport, Telecommunications, Railways, Airports and Ports, Research and Development.
Pure Private	Agriculture, Mining, Manufacturing, Commerce and Trade, Trucking and Shipping, Construction, Housing, Finance, Tourism, Sports, Media and Communications.

The time path of expenditures.

29. Georgia is very much an economy in transition: not only in the midst of a difficult passage from administered to market-based economy, but also in the process of rebuilding its state after its post-war collapse, and within a context of very limited resources. In setting priorities for public expenditures, this "transitional' aspect needs to be taken into account. *Georgia's long-range preferences as regards the role of the state in the economy may be quite different from what it can afford today.* Decisions on expenditure allocations should distinguish explicitly between medium-term objectives and immediate needs; allocating expenditure to where it is more urgently needed, while putting in place a strategy that will allow for remaining public functions to be adequately fulfilled as revenues increase.

30. How can the urgency of different expenditures be adequately compared? A simple rule is in terms of the "irreversibility" of the damage done by neglecting spending in a particular area. This has to weighed against the cost of maintaining that spending. An example of this is presented in Box 2.2. Using

this analysis, it is possible to draw a preliminary assessment of the urgency of different expenditures (Table 2.2).

Table 2.2: The Timing of Different Public Expenditures

Time path	Activity
Most urgent - neglect over the next 3 years highly costly; little room for private activity and/or cost-recovery; no alternative to public resources.	• Public safety • Courts and legal system • Emergency maintenance in power and main transport routes. • Emergency maintenance of water distribution and sewage systems.
Urgent - neglect over the next 3 years costly; however, private resources and/or informal mechanisms partially addressing these needs; costs of temporarily delaying spending are lower than for first group.	• Basic public health (prevention) and essential clinical services. • Primary education: ensuring access and maintaining minimal standard of quality. • Minimal safety net.
Important, but less urgent - private sector and/or cost-recovery can generate sufficient resources to meet the bulk of priority needs.	• Secondary education: maintaining access for the poor and maintaining quality. • Full rehabilitation of main roads, and backlog of maintenance on secondary roads • Backlog of maintenance and rehabilitation in other key infrastructure sectors: irrigation, power/gas, railways and ports.

Box 2.2: Assessing the costs of delaying spending: an example from the transport sector

Routine maintenance if the main road network is estimated to require outlays of approximately US$6 million per year. This is equal to the costs of resurfacing 1 km of road * length of the main road network (US$6000* 1000km of main highway). If this expenditure were to be postponed for 3 years, the savings generated would amount to US$16.4 million (discounted).

However, 3 years of additional neglect would almost certainly lead to a situation where the roads could no longer be resurfaced at the cost of US$6000 per km, but a substantially larger cost of reconstruction would have to be incurred. At US$132,000 per km, reconstruction of the main 1000km would require an investment of US$90 million (discounted). And this would not take into account the economic costs of longer transport times.

Hence, for every $1 spent on current maintenance, $6 would have to be incurred to recoup the damage. To assess the relative urgency of this expenditure, this ratio needs to be compared to similar ratios for alternative uses of resources.

31. The areas where public expenditures are needed most urgently include: police protection and maintenance of public safety; emergency maintenance in the power sector (which remains a bottleneck to growth in the economy); emergency maintenance of main transport routes (to ensure they are not lost beyond a point of repair); addressing critical maintenance needs of water distribution and sewage systems; and all expenditures related to setting up a proper regulatory and legal framework (which will be essential to developing a private sector, and attracting foreign investment, and hence will be crucial to reducing medium-term demands on government resources). Second in order of urgency are expenditures on basic education and on essential public health activities; as well as expenditures on maintenance of a minimal level of social protection for the poor. While these

social expenditures are definitely of top priority, the costs of temporarily delaying spending in these areas are likely to be smaller than for the first set of activities. Many of these activities have a private return, and informal mechanisms for delivering these services in the face of declining government revenues have sprung up already (see Box 2.3). Third in order of importance are expenditures on rehabilitation of existing infrastructure—full rehabilitation of existing energy facilities, main and secondary roads etc. Since these expenditures can probably be delayed for a year or two, the bulk of resources should be raised through cost-recovery and/or by drawing in private (domestic and foreign) investment.

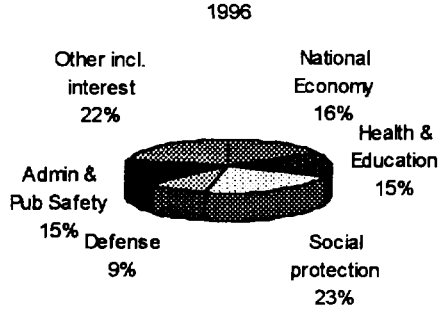
B. Expenditure Priorities by Sector

32. The two criteria described above provide useful guidelines for deciding on the appropriate cross-sectoral mix of expenditure. Priority sectors are those in which there is both a strong case for public intervention, and in which the costs of delaying spending are highest. Comparing this set of priorities to the current allocation of spending (Figure 2.1) suggests that some major expenditure shifts are needed. These include:

- An increase in the resources devoted to priority public good activities: public order and safety, the court system, and further development of key economic institutions and public administration. At present , these expenditures account for about 15 percent of the total spending budget or 2 percent of GDP. This is approximately one-half the average level for developing countries.[5] A reasonable goal is to aim for devoting somewhere between 3.5 and 4 percent of GDP to these tasks.

- A withdrawal from directly productive activities in areas such as agriculture, forestry, industry, media and film. Government involvement in these areas should be primarily indirect, and focus on provision of an appropriate institutional and regulatory framework. Overall, the total share of spending going to economic services or "national economy" will probably not decline much in the near term, as resources released from directly productive activities will have to be employed in setting up the regulatory and legal framework of a market economy. As resources expand in the future, however, the share allocated to these 'economic services" should indeeed decline.

Figure 2.1: Functional Distribution of Expenditures



- An increase in the resources devoted to maintenance and rehabilitation of existing infrastructure. The top priority in this regard is addressing the backlog of maintenance needs in critical infrastructure sectors— power and transport (mainly roads and railways). This will demand a significant up-front investment of resources: about US$40 million per year for maintenance and rehabilitation of the main road system , and another US$50 to 60 million per year for the power sector. To accommodate this, the share of resources devoted to capital expenditure will have to increase significantly.

[5] Pradhan (1995) reports a mean for developing countries in 1990 of about 5.5% of GDP (see Annex 2).

- A reorientation of the social-cultural budget to focus primarily on education, health and social protection, reducing expenditures on cultural activities, sports, and subsidies to the mass media. While there may be a case for public spending on some of those activities, these are second priority and may have to wait until the resource envelope expands sufficiently. Curtailing these secondary social expenditures would allow spending on critical health and basic education services to increase significantly, without a need to increase the total social expenditure envelope. Over the medium-term, new financing mecanisms for activities such as culture will have to be plored, to bring in financing from the private sector and to increase cost-recovery.

- Within education, health and social protection, a re-focusing of expenditures on the priority sub-sectors: public health and minimum essential clinical services, basic education, and a minimum social assistance program (which would include the current minimal, universal pension). This would ensure that public resources go to those activities where social returns are highest and would concentrate resources on those services which the poor tend to use more.

- To make room for the increase in the share of spending going to pure public goods, the share of "other expenditures" will have to decline. At present, "other current expenditure" and "unclassified" represent almost 17 percent of total current spending. Lower energy-related payments, and an appreciating real exchange rate, should greatly contribute to reducing the share of "other expenditures". This should be further facilitated by a gradual decline in interest payments after 1998.

- In parallel, some consideration should be given to what is a desirable level of defense expenditures. Military expenditures currently represent 9 percent of spending or 1 percent of GDP. However, the trend is one of slow increase which, if continued, may imply reducing expenditures on high-priority areas—such as basic health or public administration—where resources are already inadequate.

C. Policies for Expenditure Reform

33. To achieve a better provision of public services within the overall spending constraint, reforms are be needed in three critical areas: (a) improving government pay and employment practices; (b) widening private sector participation and cost recovery; and (c) increasing maintenance and capital expenditures.

Government Pay and Employment Practices[6]

34. An essential part of rebuilding government is strengthening the capacity of government employees to do their jobs. In the case of Georgia, this implies a profound reform of public administration. Fundamental to this task is the overhaul of government pay and employment practices, which have become completely dysfunctional and incompatible with a motivated and effective civil service.

35. Government employment in Georgia today is marked by two distinct traits: considerable overemployment and extremely low levels of pay. The meager remuneration causes government workers to spend much of their time attempting to supplement their income through alternative work. In effect, much of the civil service functions as a transfer mechanism akin to a public works program by which employees receive a small income supplement from the government for putting in a few hours of work per week. This

[6] This discussion draws extensively on the background paper prepared by Arup Banerji, on "Georgia: Issues in Government Pay and Employment Reform", World Bank, February 1996.

situation has not just lowered efficiency in the government, but has in some instances jeopardized its the basic civic functions.

36. *Overemployment.* In November 1995, the budgetary sector had positions for an estimated 366,900 employees (about 13 percent of the working-age population), down from 621,200 people in January 1995 (Table 2.3). While comparable to the situation in many FSU countries, the number of civil servants is extremely high when compared to most developing countries. Prior to reforms, Ghana's civil service employed 1.7 percent of its population; in Zambia the comparable figure was 2.1 percent. In 1990, the Argentine central government employed about 2.1 percent of the population, with local governments employing another 3.4 percent. Even in pre-reform Peru, total government employment accounted for about 3.4 percent of the population or 8 percent of the total labor force. In all of these countries, moreover, retrenchment of the civil service has been an important component of recent economic adjustment programs.

Table 2.3: Employment in Budgetary Organizations, 1995
(thousands of employees)

Sector	January 1995			November 1995		
	Rep.	Local	Total	Rep.	Local	Total
Education	90.0	174.3	264.3	30.0	133.0	163.0
Health	23.5	122.2	145.7	0	0	0
Science	30.7	0.3	31.0	24.3	0.2	24.5
Administration	12.0	12.0	24.0	10.0	10.5	20.5
Culture	9.6	10.0	19.6	8.7	8.6	17.3
Tourism	2.7	0.8	3.5	2.2	0.5	2.7
Sports	2.0	0.5	2.5	1.5	0.4	1.9
Defense/Law Enforcement	67.7	2.0	69.7	67.7	2.0	69.7
Other*	34.6	15.3	49.9	48.4	18.9	67.3

Notes: * includes forestry, agriculture, environmental protection and railways.

37. In the case of Georgia, extensive overemployment is combined with a scarcity of skilled workers in some key areas and with a substantial misallocation of personnel resources. There is significant redundant employment in institutions that are responsible for activities irrelevant to a market economy (such as the planning of production targets or coordination of foreign trade). At the same time, there is a shortage of skilled people trained in market economics and finance. Many ministries and institutions have overlapping responsibilities, leading to a duplication of jobs. And some sectors (health and education, for example) are clearly overstaffed by market economy standards.

38. *Extremely low pay.* By August 1994, real wages of civil servants had declined to 1 percent of their 1992 level in real terms. The purchasing power of wages has since been partially restored by successive wage increases and by the appreciation of the currency. However, wages remain far below their pre-independence levels in real terms. After the latest increase in February 1996, the monthly salary in the budgetary sector ranges from 7.5 laris (about $6) for the lowest-paid unskilled worker to 26 laris (about $20) for the top grade.[7] These wages are a fraction of what the same workers could earn elsewhere. A government accountant, for example, could earn 10 to 16 times her government wage by working in a privatized firm. Such wage differentials will make it difficult to retain skilled workers within the

[7] Personnel in defense and law enforcement receive higher salaries. As of Novemebr 1995, their average wage was 23.1 laris per month.

government as soon as private employment demand starts to pick up. Moreover, government wage scales are incredibly compressed: a senior specialist in the public administration earns only 1.4 times the wage of an unskilled laborer; a department head only 2 times the wage of an entry-level clerk. This degree of compression exceeds even those seen in highly-compressed pay structures in countries such as Tanzania, where in the mid-1980s a top public servant earned only 6 times an unskilled entry-level wage, or Mozambique, where a senior department head earned 5.4 times the wage of an unskilled clerk.

39. A large scale reform of the civil service is now underway. The major thrust of the reform has been the removal of thousands of workers from the budgetary payrolls, mostly in a few sectors—such as health, education and tourism. At the same time, there have been small increases in the pay received by remaining government workers. However, because of the budgetary constraints, these increases have been modest. They have done little to relieve workers of the impossibility of making ends meet on a single government salary. A more fundamental reform is still needed. The focus on reducing employment and increasing pay should be maintained, as ensuring appropriate employment and pay practices are a necessary (if not sufficient) element in building government administrative capacity. Efforts to increase pay, however, need to be combined with a substantial decompression of salaries and with attempts to link remuneration to job performance and productivity.

40. *Recommendations*. For Georgia, the primary objective of civil service reform is to reduce employment to an efficient minimum, while paying remaining employees reasonable wages. Doing this will almost certainly involve increasing the present wage bill. This objective has been worked into the sustainable scenario discussed above, which projects an increase in the share of total spending going to wages and salaries from its present level of 13 percent of total spending (1.7 percent of GDP) to 20 percent of total spending (3.7 percent of GDP) by the year 2004. Combined with a steady decline in government employment of 5 to 6 percent per year over the 1996-1999 period (a cumulative 16 percent decline), this will allow for a significant increase in the average real wage of public sector workers. The bulk of the employment decline should come from the overstaffed education sector, which accounts for over 40 percent of total public employment. Additional cuts in employment will have to come from non-priority sectors such as culture, sports, science, and in particular from the "other" employment category, which has actually grown over the last year. Under this scenario, the average public sector wage would converge to 75 percent of per capita GDP (a rough proxy for the average economy-wide wage) by 2004. *To sustain a larger wage increase, however, more drastic cuts in employment would be needed.*

41. In the short term (next twelve to eighteen months), reforms will have to focus on implementing agreed-upon redundancies, especially in the education sector. Meanwhile, the processes of finding and eliminating "ghost" or non-existent workers from various organizations' payrolls, elimination of all unfilled vacancies and enforcement of the retirement age should be continued and accelerated. At the same time, there needs to be a continued hiring freeze except in specialized, high-need areas. In parallel, the groundwork for later reforms needs to be laid—by deciding on desirable government structure and size, and using this information to identify the targets of further redeployment. To do this, the government has to agree on what its core functions should be. This in turn will affect the plans to rationalize the structure of ministries and administration, eliminating some functions and consolidating others. Once the core functions of ministries are understood, functional reviews will have to be carried out, beginning with a few key government agencies (such as the Ministries of Finance, Economy, Education, Health, etc.). These will attempt to determine whether existing staffing and organizational structures are appropriate for carrying out each agency's purpose.

42. A process of reducing and simplifying the salary grade structure should be initiated and followed up during the medium term. The current multi-layered pay structure is unnecessarily complex. The

existing 22-level structure should be reduced to fewer levels—explicitly differentiated between top management (including ministers), upper administrative staff, professionals and workers. The US Federal Pay Structure, for example, has 15 levels, plus a separate "Senior Executive Service" for the highest ranking federal officials. Instead of having a single salary rate for each grade, a small range can be set within grades; within-grade salary increases can be given as rewards for discernible achievements on the job. Moreover, the pay structure should be decompressed much further, concentrating the decompression on the intermediate professional grades and at the very top—where the salary differentials with the private sector appear to be largest. Within this framework, pay should be increased to levels which provide a greater degree of incentive. Initially, the level of government pay need not aim to be the same as in the private sector, as government work has some compensatory factors (usually more employment security) which can allow the salary to be below he alternative private sector wage.[8]

Private Sector Participation and Cost Recovery

43. There is a whole range of goods that are supplied publicly but that can also be privately provided. These include services such as education, where the existence of social externalities and of equity objectives may warrant public intervention even though privately-provided substitutes exist; and may include goods such as electricity or telecommunications, which can be fully provided by private markets but require that an appropriate institutional and regulatory framework first be put in place. Given Georgia's scarcity of public resources, the government should try to maximize private section participation whenever possible, and encourage private sector entry into all of these services.

44. Realistically, it will take some time to mobilize private financing for sectors such as education, housing or municipal services; the public sector will have to continue to play a key role in their direct provision. However, for sectors such as electricity generation (especially hydropower), ports or urban transport, it should be possible to attract private involvement fairly quickly, *provided an adequate market and regulatory framework exists* (it will be hard to attract resources to electricity as long as collections remain abysmally low, for exxample). Putting in place an adequate regulatory framework for such "privatizeable" activities and facilitating entry is hence of utmost priority. In parallel, where the state is to retain a role in provision of these mixed goods, it makes sense for it to seek at least partial cost recovery.

45. Cost recovery policies involve imposing part or all of their costs on the actual users and beneficiaries through user charges, rather than on the general public through the tax system. [9] The increased application of cost recovery policies has several benefits. First, it reduces the dependence on tax revenues and increases the resources available to the government for provision of key services. Second, it increases efficiency by moving the price of the good in line with the cost of provision, hence encouraging consumers to rationalize their demand. And third, it encourages the "commercialization" of public sector activities, making them more efficient, increasing their quality, and paving the way for private sector competition.

46. Cost recovery policies make sense only when users and/or beneficiaries can be identified and non-payers excluded from using the service. In such a case, a key aspect of setting cost-recovery targets is assessing users' willingness to pay for the good. Much can be learned in this regard from Georgia's recent experience, as the collapse of government revenues meant that *de facto* many services the state had

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[8] For example, studies of U.S. federal and state government employees indicate that they earn on average 20 to 40 percent less than comparable workers in the private sector.

[9] Given low tax compliance in Georgia, cost recovery has the side benefit of eliminating the implict subsidization of non tax payers by those who do pay.

traditionally performed went unfulfilled or were provided informally at a charge. For example, in the case of education and health, households' responses indicate a high willingness to pay for these services (see Box 2.3). The existence of privately provided equivalents or near substitutes can also assist in identifying the appropriate price.

Box 2.3: Assessing households' willingness to pay for social services

The collapse of government finances in Georgia meant that many services which the state had traditionally performed went unfulfilled. To what extent did private agents take over provision and/or financing of these services? Can anything be learnt about private and social valuations of these previously publicly-provided goods?

- In education, the private sector responded to the collapse of government resources by taking over a significant fraction of sectoral expenditures. Households presently pay fees for textbooks, extra tutoring, and many also provide in-kind supplies to schools for heating. Moreover, there has been significant growth in the number of students attending private schools, especially at the secondary and university level. Rough estimates suggest that at present households account for over one-half of total spending in the sector. Within the public system, households are contributing about US$29 per pupil (or 52 percent of unit cost), up from close to zero in 1990. Private fees are estimated to be within the US$150 to US$200 range. In response to the increase in the price of public schooling, there has been a decline in public enrollments of 23 percent.[10] This has been partially offset by an increase in private enrollments equal to about 12 percent of the public sector figure. Assuming no double counting, this translates into a net decline in enrollments of 11 percent. Given the magnitude of the price increase, the decline in enrollments is relatively moderate, indicating a fairly inelastic demand for education. Optimal tax theory would suggest that in this case there is a high willingness to pay for educational services on the part of households, and hence scope for (some) cost-recovery.

- A similar argument can be made for health. With the decrease in government resources, the private sector became the major source of revenue for the health sector (totaling for possibly as much as 75 percent of total sector spending). While most services continued to be provided in public facilities, patients paid for all aspects of treatment, including drugs, supplies and provider fees. The increase in price had an apparent effect on demand, with annual outpatient visits per person falling from 10 to 5 and hospitalization rates falling from 0.11 admissions per capita to 0.06. This decline should reflect, in part, a "rationalization" of use of health services following the increase in its price; it may also reflect the effects of declining quality, supply constraints and declining incomes. Although previous utilization levels were probably inefficiently high, the worsening health status of the population also indicates that there could be external costs associated with the new equilibrium. For example, if fewer visits means people enter the system later in the course of their illness, when treatment costs are higher. While inter-sectoral comparisons are tricky, the evidence on changes in demand suggests a higher price elasticity for health than for education.

47. For most public services, cost-recovery levels are currently very low. In education, households are paying for textbooks, as well as other informal fees; but official charges are still negligible. Cost-recovery from households on electricity is abysmally low, in the range of 10 to 15 percent; this is in part subsidized by higher charges to enterprises, but on the whole the electricity entities are recovering less than 40 percent of costs. Basic municipal services, such as trash collection, are also heavily subsidized, with charges recovering between 2 and 20 percent of costs, depending on the municipality. In urban transport, tariffs recover an average of 30 to 40 percent of O&M costs. There is scope for increasing cost-recovery in all of these areas.

48. Users' willingness to pay is not the only relevant criteria for determining the level of the user charge. The social benefits of providing a particular service also have to be taken into account. In the case of education and health, for example, the existence of external effects implies that full cost-recovery will not be necessarily optimal. In contrast, publicly-provided transport and communications services (roads, railways, telephones) should aim at full cost-recovery. The same applies to basic public utilities

[10] Total decline in net enrollments between 1990 and 1995 was 25.1 percent; about 15 percent of this was due, however, to shrinking age cohorts.

(electricity, gas, heating and water). Within this framework, social protection and equity objectives will be best served through direct transfers to poor households. Reduced prices for particular vulnerable categories of households is a possible, but less-desirable, alternative.

Table 2.4: Some Estimates of Cost-Recovery for Different Public Services

	Electricity[a]	Urban Transport	Water Supply
Nationwide			
Households	7	--	--
Budget	69	--	--
Other	35	--	--
Tbilisi	30	42	10
Kutaisi	30	55	--
Poti	65	60	50

Note: [a] Sakenergo for nationwide. Local distribution companies for municipal. Estimates from Sakenergo and Municipal Sector Policy Note.

49. The introduction of user charges often raises the question of whether cost-recovery revenues should be earmarked for use on related expenditures. This issue, for example, has already come up with regard to the earmarking of road user revenues and fuel taxes for road rehabilitation and maintenance (through the so-called Road Fund). It has also arisen with regard to the allocation of earmarked payroll tax revenues (the "3+1" tax) to the Health Fund. Two arguments are often made in favor of earmarking: first, it addresses the myopia of the budget process and protects expenditures that are high priority but vulnerable to being disproportionately cut during episodes of fiscal adjustment (such as expenditures on maintenance, and social services); second, it taps consumers' willingness to pay for certain services and hence increases revenues. Moreover, in the case of the Health Fund (see Chapter 3), earmarking can be thought of as a first step in the creation of an explicit health insurance system. On the negative side, earmarking diminishes the Government's flexibility to modify expenditure priorities in a tremendously constrained and volatile resource environment. Because of this significant disadvantage, it is preferable to address budget myopia and the vulnerability of certain expenditure items directly, by improving the budget and priority-setting process, than through earmarking.

Maintenance and Rehabilitation Expenditures

50. As a consequence of Georgia's fiscal crunch, spending on maintenance and rehabilitation has basically disappeared. In 1995, for example, outlays on routine road maintenance were less than US$500,000, a fraction of the estimated minimum needs (see Table 2.5). While still adequate for current traffic volumes, the main road system (comprising the main east-west road from Azerbaijan to the Black Sea and the north-south road from the Armenian to the Russian borders) is deteriorating rapidly. Potholes have appeared in numerous stretches, surface markings have all but disappeared, and several key structures need rehabilitation. A similar state of disrepair is obvious in railways, where only about 22 percent of locomotives and 30 percent of wagons are operational, and where several critical bridges are in urgent need of repair. In the energy sector, faulty operational practices, particularly in the power system, are damaging existing generation and end-use equipment. At the same time, the sector's poor financial situation has resulted in a complete lack of maintenance: in 1995, Sakanergo's budget allocated only about 1 percent of total operating expenditures to routine maintenance and urgent repair work. If sustained, the failure to provide adequate maintenance expenditures could have serious adverse consequences for the capital endowment of the economy (which could deteriorate to a state where rehabilitation is no longer possible), and therefore for Georgia's future growth prospects.

Table 2.5: Priority Maintenance and Rehabilitation Needs in Selected Sectors, 1996-98 (in millions of US$)

Emergency Maintenance (1996)	55.7
Health Facilities	0.5
Main roads	6.6
Power - thermal	12.2
Power - hydro	36.4
Full Rehabilitation (1996-98)	266.6
Health Facilities	9.2
Roads	86.4
Power - hydro	63.0
Power - thermal	60.0
Power - transmission & dispatch	33.0
Tbilisi - roads	15.0

Source: Estimates based on preparation work for the Transport Rehabilitation and Health Projects, and on the Energy Sector Memorandum.

51. Specific maintenance and investment priorities for each sector are addressed in Chapter 3. However, some common themes can be extracted for all sectors:

- In all sectors, the *first priority is to address the backlog of delayed routine maintenance and urgent repair work*. Expenditures over the next twelve to eighteen months should focus almost exclusively on these needs. A second priority is the rehabilitation of existing assets. New investment to address potential capacity constraints is a distant third priority, as in most sectors existing volumes of usage do not warrant new investment. This should wait until usage volumes recover to their pre-1991 levels (the only possible exception could be investment in new hydro capacity to alleviate the energy shortage).

- The short term goal for key infrastructure sectors (power and gas, road transport, railways, telecommunications etc.) is that they *operate on a commercial basis*, and generate enough revenues through cost-recovery to cover at a minimum their O&M costs. In the medium term, cost recovery should also cover investment costs. At the same time, it will be necessary to lay the groundwork for privatization of the commercialized enterprises in these sectors, which will be key to attracting new capital.

- In addition to raising revenues through increased cost-recovery, there is scope for increasing the resources available for essential maintenance in most of these sectors via *reductions in operating costs*. The greatest savings would come from reductions in fuel and energy use (which represents one of the main expenditure items in almost all sectors including power, railways, health and education).[11] Measures to this effect could include: improvements in transmission/distribution networks to reduce leakage and wastage; installation of meters at generation, interface of transmission and distribution, and end-users levels; and promotion of energy conservation measures. A second source of savings would be reductions in the work force. In railways, for example, the 18,000 operational staff could easily be reduced to 10,000 given the size of the network and current traffic flows. Furthermore, in some sectors, additional resources could be generated via the divestiture of assets and social welfare

[11] Of Sakenergo's expenditures durin gthe first 9 months of 1995, almost 75 percent was on fuel and imported energy. In the railways, expenditures on fuel and energy were about 25 percent of the total. In education, energy-related expenditures represented almost a third of the sector budget.

functions. The Railway Department, for example, spent nearly 5 million lari on the construction of apartment buildings for its employees in 1995. In the case of the Highway Concern, it is estimated that the privatization of maintenance and construction units could generate up to USS$1 million in the sale of assets, mainly real estate and equipment.

- Realistically, it will take time before some of these sectors can adequately cover their investment needs. It is also unlikely that new tariff and cost reduction measures will generate sufficient up-front resources to address the backlog of maintenance and rehabilitation needs (especially in sectors like power, where collection rates are abysmally low). *Some budgetary resources will have to be allocated to these tasks*, either independently or as part of counterpart financing for externally-funded projects (as in the Bank-supported Transport Rehabilitation Project).

52. If it is to address these priority needs, Georgia will need to devote more resources to maintenance and rehabilitation than it has over the past 3 years. To accommodate this, the sustainable fiscal scenario projects a rise in capital expenditures from under 1 percent of GDP in 1996 to about 4.8 percent in 2004. Given the base case assumptions for growth and public spending, this represents approximately US$350 million available for capital spending during the initial 1996-98 period. Although modest in comparison to levels achieved in other countries, this level of capital spending will at least provide a basis for halting the deterioration of the country's stock of infrastructure. Decisions on the specific inter-sectoral allocation of these resources will have to be based on a careful cost-benefit evaluation of the different options, and on the availability of alternative sources of funding. However, because of their role as bottlenecks to growth, priority should be given to rehabilitation of key assets in road transport and power.

53. Developing a strategy for O&M expenditures. Because maintenance expenditures are a key determinant of the state of the capital stock, expenditure decisions on O&M can potentially affect the quality of a whole range of public expenditure programs. As part of its efforts to increase the quality of public services, Georgia will need to develop a more effective strategy for meeting O&M expenditure needs in the future. It cannot continue to treat maintenance expenditure as a residual, to be addressed only on an emergency basis when something breaks down. Developing a better strategy for O&M expenditure will require reforms of the planning and budgeting process. The following actions could help in this task:

- Calculations of O&M expenditure requirements should be explicitly incorporated into project evaluation, and into the preparation of the Public Investment Program.

- Responsibility for overseeing O&M expenditure needs and outlays should be consolidated within a single agency, and monitoring and supervision of such expenditures strengthened.

- Government accounting practices should be reformed (along the lines of the Government Finance Statistics economic classifications) to identify actual O&M expenditures. This will allow for better monitoring and planning.

- At the sectoral level, information on stock of assets, condition, maintenance history and requirements should be compiled. On this basis, sectoral agencies should then define O&M objectives, requirements and costs.

The Public Investment Program

54. In the short term, most of the financing for capital investment will have to come from external sources, mainly international financial institutions and donors. Developing a strategy for focusing the

attention of these sources on the government's priorities (rather than on donor's own, isolated projects) can prove fundamental to making the best use of these resources. The preparation of a Public Investment Program (PIP) can play an important role in developing this strategy. More importantly, the PIP can also be a useful tool for clarifying the Government's own policies and strategies, and in identifying the priorities for public investment.

24. The Government has established a Project Preparation Service which is preparing a PIP fir the 1996-1998 period. Statements of policy and strategy for each main sector have been drafted in collaboration with the sector ministries, and profiles of a number of unfunded projects have been written up. This work has successfully laid the groundwork for preparation of a PIP on a regular basis. Despite this progress, both the final product and the PIP process itself still need to be strengthened if the exercise is to reach its full potential. More specifically:

- Project screening, evaluation and selection need to be improved, not only at the level of the Project Preparation Service, but especially at the sectoral ministry level. No attempt has been made so far to calculate economic and financial rates of return on different projects, and hence project selection remains ad hoc. Better criteria for inter-sectoral and intra-sectoral selection of projects need to be developed, and economic analysis of projects explicitly incorporated into the project selection process.

- Links to the government's overall spending and investment priorities need to be made more clearly; particularly for the pipeline of future projects, where they appear to be weakest (see Table 2.6). In the same vein, there needs to be a more explicit consideration of the available resource envelope. At present, the implicit expectation is that the PIP would help tap large amounts of additional external funding, that would not otherwise be directed to Georgia.

- For the near term, investments should focus more on maintenance and rehabilitation of existing infrastructure, and less on new investments (which dominate the pipeline of future projects). Recurrent expenditure requirements of the proposed projects should be more explicitly taken into account, and integrated with the budget process.

- While most of the ongoing projects appear to have a solid public sector rationale, some of the pipeline projects appear to be more commercial, and hence candidates for private financing. Specific examples of "private-sector" projects that should not be in a PIP include: production of liquid carbo-hydrogen fuels, development of the Chiatura manganese mine, and construction of a Transcaucasian optic fiber cable line (see Table 2.6).

- More generally, the PIP needs to be more closely integrated into the planning/budget process. It should start from a macroeconomic assessment of resource availability and use this to give individual ministries and agencies realistic medium-term guidelines on investment and expenditure resources for their sectors.

55. If these issues are adequately addressed, the PIP can prove to be a very useful tool, not only to attract donor financing but, more importantly, to make more efficient and coherent use of the Government's own resources.

Table 2.6: Summary of Projects in the Draft PIP

(a) Committed (D is donor-funded)

Domain	Priority	Total Cost ($m)
Public		
Agriculture Development Project (D)	High	19.6
Emergency Power Rehabilitation (D)	High	33.4
Network Rehabilitation (D)	High	56.5
Transport Rehabilitation Project (D)	High	30.0
Health Project (D)	High	19.8
Municipal Infrastructure Rehabilitation (D)	High	19.6
Social Investment Fund (D)	High	18.0
Center for Biodiversity (D)	Medium	0.92
Equipment for Radio/TV	Med/Low	0.4
Public/Private		
Airport Development (D)	High	11.0
Wholesale Markets (D)	High	13.1

(b) Proposed

Domain	Priority	Total Cost ($m)
Public		
Rehabilitation of Two Bridges on the Dzirula river	High	2.80
Reconstruction of Mail Services	High	3.5
Establishment of a Legislative Base in Communications	High	0.3
Development of Urban Transport Policy Framework	High	0.3
Water Supply to Poti	High	3.2
Database of Municipal and Housing indicators	Medium	0.2
Census of Population	High	1.5
Development of Urban Cadaster	High	0.2
TA to the Department of Geology	Low	0.15
Ecologically Safe Development of Black Sea Basin	Medium	0.10
Improvement of the Economic Information System	High	0.55
Public/Private		
Liquid Gas Terminal, Poti	Medium	10.80
Construction of Freight Turnover Service in Poti	Med/High	9.0
Rehabilitation of Khashuri-Batumi Oil Pipeline	High	0.83
Wind Farm (100Mw)	Low	6.43
Wind Farms in Mtasabueti	Low	4.9
Support for High-Technology SMEs	Low	1.10
Tourism Product Development and Marketing	Medium	0.15
Artificial Geothermal System in Lisi Lake Area	Low	8.1
Private		
Production of Liquid Carbo-Hydrogen Fuel	Low	1.7
Construction of Transcaucasian Optic Fiber Cable Line	Medium	7.0
Reorganization of Construction Sector	Low/Med	0.2
Elaboration of Tourism Projects	Medium	0.1
Development of Chiatura Manganese Mine	Low	1.3

Source: Project Preparation Service, Georgia Public Investment Program 1996-98.

Chapter 3: Selected Sectoral Expenditure Issues

56. To aid the government in the process of rethinking the role of the state, the discussion in this chapter will focus on what roles the government can, and should play, in the social and infrastructure sectors. Without attempting to be comprehensive, the chapter will review the main expenditure issues within each sector, and present some broad recommendations for reform. Particular attention is paid to the themes raised in Chapter 2: encouraging private sector participation; applying cost recovery policies; ensuring an adequate level of maintenance and capital expenditures; and the need for pay and employment reform.

A. Health[12]

Key Sector Issues

57. *Deterioration of health outcomes.* The health status of the Georgian people is deteriorating rapidly. The infant mortality rate (IMR) has risen by 13 percent since 1990, reaching an official rate of 21.4 in 1993. The maternal mortality rate was estimated to be 39 per 100,000 live births in 1990-93, four times the level in Western Europe, and is expected to increase due to a recent rise in unsupervised home deliveries. In the absence of immunization programs for children (which almost completely ceased in 1992), there has been a sharp rise in the cases of various communicable diseases, including diphtheria, measles and pertussis. Recent trends also show a jump in tuberculosis (TB) morbidity and mortality: the TB mortality rate is now 90 percent higher than in any country of Western Europe. Deaths due to cardio-vascular diseases have increased by 35 percent since 1991, and the overall age-adjusted mortality rate has risen by 18 percent.

58. *Inefficiency.* As in other FSU countries, the health system in Georgia was developed with little attention to criteria of technical or allocative efficiency. The system overinvested in curative health services at the expense of health prevention and promotion. The bulk of resources went to acute care facilities, staffed with specialized physicians. Poorly planned investment programs during the 1970s and 1980s resulted in an accumulation of hospitals and hospital beds. Low occupancy rates (below 30%) and chronic underfunding of recurrent expenditures on drugs and maintenance have further exacerbated the inefficiencies in the system. In addition, Georgia has one of the most over-staffed health sectors in the world: with 1 physician per 197 inhabitants, Georgia's density of physicians surpasses even the levels seen in OECD countries.

59. *Collapse of public financing.* Following independence, and as result of the collapse of government revenues, public spending on health fell sharply. By 1994, annual public expenditures on health had fallen to less than 10 percent their 1990 value, and represented only 0.3 percent of GDP, or less than US$1 per person. With the collapse of government finances, the private sector became the main source of revenue for the health sector (totaling for possibly as much as 75 percent of total sector spending). While most services continued to be provided

Table 3.1: Hospital Use, 1994

Hospital Beds ('000s)	44,444
Est. Bed Needs (EU average)	17,000
Beds per 1000 population	8.7
Admissions per capita	0.06
Average length of stay	14.9
Occupancy Rate	0.28

[12] This section draws extensively on the background paper prepared by H. Barnum and L. Rose, "Georgia: Health Financing and Expenditures", and on the Staff Appraisal Report for the Health Project.

in public facilities, patients paid for all aspects of treatment, including drugs, supplies and provider fees. Fees were high: the average price of a delivery was about US$150, while that of a cesarean ranged between US$300 and US$400 (as compared to an average official GDP per capita of US$410). Partly as a result of the increase in price, utilization rates for the system fell sharply, with annual outpatient visits per person dropping from 10 to 5.

Table 3.2: Public Expenditures on Health, 1990-95

	1990	1991	1992	1993	1994	1995
Nominal Health Expenditures	0.45	0.78	3.57	70	4300	21900
Real Expenditures (% of 1990)	100	103	30	11	8	38
Real Expenditures per Capita (1994 US$)	9.62	10.10	2.98	1.12	0.81	3.29
Health as % of GDP	3.5%	4.1%	2.8%	0.4%	0.3%	0.7%
Health as % of Total Public Expenditures	9.5%	13.2%	5.4%	1.2%	1.3%	5.1%

Notes: In billions of coupons (1995 = thousands of lari). Rubles 1990-92 converted into coupons at 1:1.

60. Falling public real expenditures have been accompanied by a shift in composition. As in other sectors, rising costs of utilities and hard-currency supplies have crowded out expenditures on wages and maintenance in the limited budget. In 1992, wages and supplements represented 52 percent of total sector spending. By 1994, they had fallen to 32 percent of the total. Current real wages in health can purchase only a few loaves of bread per month, and are insufficient to sustain a household. Expenditures on utilities, on the other hand, have increased in importance to account for a third of the 1994 budget; even though in real terms they have also fallen, to less than 20 percent of their 1990 value. Maintenance and repairs have kept their share of spending, but have declined sharply in real terms (to about 1 percent of their 1990 value).

61. *Decline in coverage and access to services.* There has been a sharp decline in coverage and access to services. Physical access has been limited by a dramatic reduction in the availability of functioning ambulances and helicopters, necessary for servicing rural and mountainous areas. Financial access has been curtailed by the economic collapse and the increase in the price of services. Although detailed data are not available, results from a 1994 household survey suggest that as many as 27 percent of households were unable to afford medical care. Given the overall decline in utilization rates, this suggests a sharp drop in access for the poor.

The Government's Reform Program

62. The Government has responded with a radical reform plan for the sector. The strategy is to concentrate scarce public resources on the provision of a basic package of public health and essential clinical services. [13] Services outside the package would be provided on a fee-for-service basis, with exemptions made for the most vulnerable groups. The reform program also includes measures to drastically reduce the size and improve the quality of health personnel, and to reduce the number and improve the

[13] The public health package covers immunization, disease prevention, epidiemological surveillance, health promotion and measures to reduce infant and maternal mortality. The clinical services package includes deliveries, treatment of children under 14, treatment of TB, inpatient psychatric care, provision of drugs for terminally ill patients, and emergency services.

quality of health care facilities (the bulk of which are to be privatized, with the aim of creating a mixed public/private market for health services). [14]

63. A key ingredient of the reform is the separation of the financing and provision of health care. Most health services are to be provided by the private sector, with only a limited number of hospitals remaining in public hands. Providers will be reimbursed for services included in the basic package from a State Health Fund. The Fund will be financed in part by an earmarked 4 percent payroll tax (with 3 percent paid by the employer and 1 percent by the employee), and in part via an allocation from the central budget. These resources will be supplemented by revenues from privatization, licensing fees and, at least initially, by significant amounts of humanitarian assistance. In addition, municipalities are required to provide financing for emergency services and for treatment of children 1 to 13 years of age; initially they will also subsidize the utility expenses of facilities located in their jurisdictions.

64. In 1995, with the introduction of a new health reform program and an increased central budget allocation, total public spending on health increased to about US$3.3 per person (5.1 percent of total spending or 0.7 percent of GDP). In 1996, total public expenditures on health are projected to reach US$ 9 per person, or 7 percent of total public spending. The base case scenario incorporates a further modest increase in the share of spending going to health over the next few years. Combined with the refocusing of sector resources toward the basic package, this should allow per capita spending on those key services to increase to US$ 24 by the year 2000, and would bring Georgia in line with the average recommended by the 1993 World Development Report for middle income countries.[15]

65. The reforms presently underway imply a significant reallocation of resources within the sector towards basic public health and essential clinical services. The 1996 consolidated health budget, for instance, assigns approximately 12 percent of total health expenditure to health promotion and disease prevention, a significant increase from past practices. About 41 percent of total expenditure is allocated to essential clinical services, and another 22 percent to emergency services (to be covered by the municipalities out of their budgets). Approximately 15 percent of the budget is devoted to administration, research and education, and 10 percent to the provision of insulin to diabetics.

Recommendations

66. In line with the recommendations discussed in Chapter 2, the reform program seeks to maximize private sector participation, while retaining a role for the public sector in several key areas where there is a strong rationale for public intervention. The resulting shift in the allocation of resources to those areas should greatly increase allocative efficiency in the sector. The program also attempts to address the problems of overstaffing and low pay in the sector, which lie at the core of the sector's inefficiency. The key measure in this regard is the removal of physicians from the budgetary payroll. The hope is that in combination with the privatization of hospitals, this will generate sufficient competition to rationalize the number of personnel in the sector

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[14] On the whole, the reforms emphasize improving the health care system and changing individual lifestyles, both of which appear to be the key determinants of health outcomes in Georgia, along with socio-economicconditions. Unlike in many low-income countries, environmental considerations do not appear to be a key factor influencing the burden of disease.

[15] The 1993 WDR recommended concentrating health resources on provision of a basic package of public health and essential clinical services, much along the lines of the reforms initiated in Georgia. In 1990, the average cost of providing such a package in medium-income countries was estimated at US$22.

67. However, some aspects of the proposed reforms raise concerns. First, there are obvious equity issues, since the evidence suggests that many poor people cannot afford to pay health fees. The government has chosen to address this issue by providing vouchers for health services to a target group of vulnerable households (about 300,000). However, it is not clear whether the coverage of this voucher scheme will be sufficient to guarantee access to health services to all of those who cannot afford to pay. The government will have to monitor access by the poor under the new system, and make corrrections if needed.

68. Second, not all services covered by the basic package have an explicit public good aspect. Precisely what constitutes "emergency services", for instance, has not been clearly defined: in principle, many of the services that could fall in this category have high private returns and could be adequately provided by the private sector. Other services included in the basic package—such as psychiatric care —also have a weak rationale for public intervention. Some of these services are, moreover, among the most expensive to provide, and tend to absorb a disproportionate amount of resources. The intended coverage of the basic clinical package may be too broad for Georgia's limited public resources. The aim should be to cover for free only priority clinical services (with large public good or externalities components). Other curative services should either be excluded from the basic package or require a co-payment from those that can afford to pay. Resources released by this measure could be devoted to increasing interventions targeted to the poor.

69. To encourage risk pooling, the government should in parallel build a framework for the development of private health insurance. This would help create a two-pillar system, in which the government would provide a minimum basic package of health services and seek to guarantee access to the poor; private households could complement this coverage through private schemes

70. There is a risk that the planned reimbursement system will generate significant cost escalation. Under the new system, health care providers will be reimbursed on the basis of a diagnostic related group type fee schedule. The difficulties of controlling costs with such a system are well-documented in the OECD. Already there are indications of cost escalation: the number of cesareans is rising relative to normal deliveries (the price differential in January 1996 was on the order of 10 to 1); and unit costs for some services are creeping up. Some steps have been taken to control costs such as capitating public health services and establishing a reference price list for services not included in the basic package. However, the government will have to monitor these developments closely, and, if necessary, take further actions to contain costs.

B. Education[16]

Overview

71. Georgia's education system comprises four levels: kindergarten, compulsory general education (grades 1 to 9), upper secondary (grades 10 and 11), and higher education. After the nine years of compulsory education, students have a choice between entering a four-year technical school or technicum, entering a two or three year vocational school for qualified workers, continuing on to upper secondary school leading to university, or leaving the system altogether. Enrollments rates have traditionally been extremely high: participation rates for compulsory education were close to 100 percent, and enrollments in secondary education about 76 percent.

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[16] This paper draws extensively from the background paper by F. Orivel, "The Education Sector in Georgia: Previous achievments, present problems and perspectives".

72. Administratively, the system is run jointly at the central and local levels. A relatively small Ministry of Education is responsible for controlling 240 of the total 6000 public school facilities, mostly vocational/technical schools and centers for higher education. At the central level, some facilities (mainly specialized technicums) are controlled by other ministries. All other 5700 preschool and school institutions are managed by local governments (except for some 600-700 kindergartens managed by large enterprises and collective farms).

73. Schools used to provide extensive welfare services; free meals were provided in kindergartens (three times a day), primary schools and vocational centers. Scholarships were given to all higher education students, with some differentiation according to exam scores, and free uniforms were supplied to vocational students. On the whole, the system was highly overstaffed: in 1992, over 10 percent of the working population of Georgia was engaged in the sector, with nearly one-half of the staff engaged in non-teaching jobs. There were 94,523 teachers in Georgian schools in 1992/93, for an average pupil/teacher ratio of 8.5, far below the average even for OECD countries; pupil/teacher ratios in vocational schools were even lower (6.9 pupils per teacher).

Key Sector Issues

74. *Declining public resources*. Real public resources allocated to education have declined by about 97% since independence. All levels combined, the system used to spend $804 per pupil in 1990 (a figure which was excessive); but it spent less than $30 per pupil in 1995. At present, the share of public resources devoted to education is less than 1 percent of GDP, below the average for developing countries (2.8 percent), and well-below the average for regions such as East Asia (4.8 percent), which invest heavily in human capital (see Annex 2). One major consequence of the unprecedented shrinking of resources has been a massive decline in the real wages of teachers. This, in turn, has led to increased absenteeism and lower quality of teaching. Quality has been further compromised by lack of teaching materials, deteriorating facilities and, in many instances, lack of heating in schools.

Table 3.4: Public Expenditures on Education, 1990-1995

	1990	1991	1992	1993	1995
Nominal Expenditures (Rep.)	0.412	0.588	3.137	35.2	9780.5
Nominal Expenditures (local)	0.563	0.973	4.319	75.8	19005.9
Total Expenditures	0.975	1.561	7.451	111.1	28786.5
Share of local	57.7	62..3	57..9	68.3	66.0
As % of total spending	20.4	26..3	16.4	9.0	6.74
As % of GDP	7.4	8.2	5.0	0.8	0.9

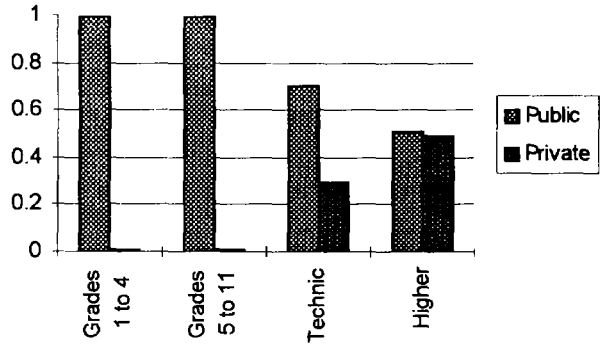
Notes: Billions of coupons (1995 in thousands of lari). Source: Ministry of Finance

75. *An emerging private sector*. Given the scarcity of public money, the system has turned towards private sources of finance. Household contributions (through textbook fees, in-kind contributions such as wood, or via private tuition) have increased dramatically, and by some estimates already account for more than half of spending in the sector. Within the public system, households are contributing about US$29 per pupil (or 52 percent of unit cost), up from close to zero in 1990. Private suppliers of education have also flourished during the last few years, especially at the post-secondary level, hence reducing the sectors dependence on the purely public system. Private fees are estimated to be within the US$150 to US$200 range per year, placing private education beyond the reach of poor families.

76. *Falling enrollments* . Partly in response to the decline in quality, partly because of the increase in the price of public schooling, there has been a decline in public enrollments of 23 percent.[17] The decline has been partially offset by an increase in private enrollments equal to about 12 percent of the public sector figure. In the absence of double enrollment, this implies a net decline in enrollments of 11 percent. Although there is no detailed data on access to education by income level, rising public charges and high private fees suggest that the decline in enrollments has been disproportionately concentrated among poor households.

77. Enrollments have fallen at all levels of schooling (except higher education), but the decline has been especially high in vocational schools (with enrollments dropping as much as 75 percent), and kindergartens (with a decline of 60 percent). In both types of facilities, this has been the result of a combination of sharper demand effects (implicit price increases in both have been larger than in other segments of the education system because of the discontinuation of the feeding programs); and possible supply effects (a number of enterprise-run kindergartens have closed down, and many vocational schools are not operating because of lack of equipment, spare parts and raw material).[18] The decline in enrollments in general and secondary education (grades 1 through 11) has been much smaller, with total enrollments falling by 5 percent between 1992/93 and 1994/95. About one-sixth of this decline was due to demographic factors.

Figure 3.1: Private/Public Enrollments, by Level (% of total enrollments)



78. The increase in private sector enrollments has been concentrated at the upper-secondary and post-secondary level. Less than 5 percent of private-sector students are in grades 1 through 9; and almost 94 percent of the private school student body is enrolled in either a technicum or in higher education. More than one-half these private schools are located in Tbilisi (which accounts for about one-quarter of Georgia's total population). Altogether, these developments suggest that the education system in Georgia is in the midst of a spontaneous segregation into public and private schooling, with the public sector retaining responsibility for educating the bulk of students in compulsory education (Figure 3.1).

79. *Declining teacher salaries*. One consequence of the unprecedented shrinking of public resources has been a steep decline in teacher salaries (which has paralleled the decline of public sector wages). In November 1995, the average monthly salary for teachers was approximately US$7; barely enough to cover the cost of public transportation for a week. As a result, teachers spend a lot of time seeking ways to supplement their incomes, through private teaching or alternative jobs. Not surprisingly, teacher absenteeism has soared. A number of local governments have developed mechanisms to supplement the

[17] Total decline in net enrollments between 1990 and 1995 was 25.1 percent; about 15 percent of this was due, however, to shrinking age cohorts.

[18] It may also reflect that demand for these particular educational services is more price and income elastic.

incomes of teachers: in Tbilisi, for example, teachers receive special allowances for transportation costs; in the Kutaisi region, the local government has used its own resources to increase teacher salaries—which are now two to three times higher than in other regions; in Adzharia, an "Education Fund" financed through a special customs duty pays some supplementary wages. Similarly, some institutions—such as Tbilisi State University—which have some autonomy over their budget, have begun to charge fees to students, and used the proceeds to finance teacher salaries. In line with these developments, the government has announced that full responsibility for teacher salaries (in general education) will be shifted to local governments starting this year.

Table 3.5: Structure of the Educational Budget of the Central Government, 1993-95
(% of total educational expenditures)

Expenditure Item	1993	1994	1995
Wages	31.3	28.4	16.4
Social Security	8.0	7.2	4.3
Utilities	12.5	45.9	30.3
Business Travel	0.2	0.2	0.1
Stipends	16.6	5.3	4.3
Food	2.2	4.0	23.1
Furniture and other materials	1.3	0.3	16.9
Capital Repair	10.9	0.3	3.4
Other	16.9	8.4	1.2

Source: Ministry of Education.

80. *Rising utility payments*. Detailed data on local educational budgets is not available. However, some insight as to the economic composition of spending within the sector can be gained from the central education budget (Table 3.5). Reflecting the decline in wages, and some cuts in staff, the share of resources allocated to salaries has fallen significantly. At the same time, utility payments have surged, accounting for nearly one-half of the budget in 1994, and about a third in 1995. Expenditures on food have also increased markedly, reflecting the elimination of subsidies. Although food services have been curtailed in most regular schools, they are still ongoing in orphanages and boarding schools for handicapped children. The huge allocation to furniture in the 1995 budget is surprising, but according to the relevant Ministry of Education staff, has not been executed and must be treated as a "slush fund" or residual for other expenses. Capital repair is minimal, and new investments have completely disappeared.

Recommendations

81. Georgia's experience of resource decline in education is not unique within the FSU, but the magnitude of the decline is certainly unparalleled. The fact that the system has not collapsed altogether is proof, however, of the great demand for education from the Georgian population, and of their high willingness to pay for these services. Since Georgia's fiscal situation precludes a large increases in the public resources available to education for the near term, reforms in the sector should hinge around transferring a substantial part of the costs of education to households, and allowing for the development of a private education sector. The process will undoubtedly generate inequities. To address them, a sizable fraction of resources will need to be focused on ensuring access to education for the poor. However, this will be better and more efficiently accomplished through targeted interventions aimed at vulnerable households (for instance, through the use of vouchers), than via a generalized subsidy to education, which Georgia can no longer afford.

82. The key elements of expenditure reform in education are as follows:

Short-term:

- *Increasing the resources available to the sector through cost-recovery at all levels of education.* Fees should be charged throughout the system for books and tuition. If some degree of subsidization is to be retained, it should be concentrated at the level of compulsory education, and not at the specialized or post-secondary levels. The goal for public higher education should be full cost-recovery: private returns to university education are higher than social ones, so there is little rationale for a public subsidy. Moreover, the appearance of a private market for education at the post-secondary level strongly suggests that those who can afford to, will pay for the investment. In this context, equity concerns are better addressed through the provision of stipends to students from poor families, than through a generalized subsidy for university education, which accrues disproportionately to the better off.[19]

- *Focusing public resources on primary and secondary education.* Social returns are highest at the primary and basic secondary level. In addition, experience from other countries indicates that resources targeted at those levels will yield the greatest benefits to the poor. Both of these reasons suggest focusing public resources on those two segments of the educational system. Although a detailed breakdown of expenditures by level of education is not available, a rough estimates can be derived from the share of central level expenditures in the total (local governments are responsible for almost all of primary and secondary schools). This suggests that about 34 percent of total spending on education is allocated to technical, vocational and higher education (and to running the central ministry). These resources should be redirected to elementary and secondary education, and the state's role in other levels of education reduced.

- *Reducing staff and increasing salaries.* Good teachers are the core of an effective educational system. At current salary levels, it will be difficult to retain skilled teachers in the system once the rest of the economy starts to pick up. Nor will the absenteeism problem be resolved without a significant increase in salaries. Yet given the fiscal constraints, increasing wages in the sector will prove impossible unless there are *significant reductions in staff* (on top of the 35 percent reduction that already occurred in 1995). With existing overstaffing, it should be feasible to implement fairly radical cuts, especially among non-teaching staff. At a minimum, an additional cut of 40,000 workers is needed. In this regard, the priority should be to release staff from the non-general education parts of the system; this should occur naturally as the state reduces the resources it allocates to those activities, and divests of facilities. However, some cuts will also be needed within staff allocated to general education (which currently amount to some 123,000 workers).

[19] In the absence of household data on consumption of education by level, it is impossible to carry out any type of indcidence analysis. Experience from other CEE and FSU economies suggests, however, that poverty is correlated with low levels of education. It seems reasonable to assume that, as in most developing countries, resources devoted to primary and secondary education will benefit the poor more than resources allocated to higher education.

Medium term:

- *Privatizing those segments of the system where there are high private returns, granting greater management autonomy to those that remain in public hands, and introducing competition for public resources.* Georgia's recent experienced indicates that there is potential for a private market in many educational services. Private sector participation and entry should be encouraged at all levels of education. To ensure that centers meet a certain level of quality, and to protect consumers, the government will have to put in place an appropriate regulatory and accreditation framework. Where the public sector is to retain a role in provision (mainly primary and secondary schooling), the goal should be to grant greater management autonomy to schools, and encourage competition between them and with the private sector. One way to do this is to link public resource flows to measures of student performance, and make both public and private institutions eligible for public funding ("voucher" system). This model has been successfully implemented in Chile for elementary and secondary education.

C. Science

Overview

83. The Georgian scientific sector used to be organized according to the general Soviet framework, and was extremely developed given the size of the country. The system comprised three types of research institutions: the traditional soviet "Academies", university-based research institutes close to the Western model, and research institutions dependent on specific ministries (Ministry of Defense, Ministry of Health etc). In 1991, there were 240 scientific institutes in Georgia, of which 40 were R&D institutions and the remaining 200 more oriented towards fundamental research with little or no connection to the productive world. These 240 institutes had a staff of about 75,000, of which approximately 46 percent were professional researchers and scientific staff. This represented a ratio of about 13 scientists per 1000 active persons— significantly above the average in OECD countries which ranges from 3 per 1000 in Italy to 7.8 per 1000 in Japan.

84. Before independence, only 105 of the 240 research institutes were supported directly by the Georgian budget, with 135 directly financed and controlled from Moscow. After 1991, the Georgian authorities decided to integrate 55 of the 135 institutes managed from Moscow into the budget. Consequently, the budget today supports 160 research centers. These 160 institutions are coordinated by the State Committee of Science and Technology, which is charged with elaborating the scientific policy of Georgia, assessing budget requirements and evaluating research outcomes. Altogether, the remaining 160 institutions have about 21,600 staff, of which less than half holds a PhD.

Key Sector Issues

85. *Declining resources.* The main issue in the sector is the scarcity of resources. For fiscal 1996, total budgetary resources allocated to the sector are 11 million Laris or US$ 8.5 million. This represents only 0.2 percent of GDP, which is low by world standards (see Table 3.6). In real terms, the science budget of Georgia has fallen to less than 1 percent of its pre-independence level. One consequence of this shrinking of public resources has been a dramatic fall in real wages: the average salary of a Georgian scientist is only 15 laris per month (US$ 12)—not enough to maintain a family. As a result, researchers have to engage in secondary activities to supplement their incomes, at the expense of their scientific work. Overall, net salaries represent slightly over a third of the science budget (35.7 percent); when social security is included, staff costs amount to about 46 percent of total science expenditures. Utilities consume

about 27.3 percent of the budget, building maintenance 22.2 percent, and travel of scientific staff abroad 4.2 percent. This last item allows for about 100 people to perform a short trip abroad per year. In an area where interaction with scientists of other countries is key, this translates into 1 trip per scientist every 80 years!

Table 3.6: R&D Expenditures in Georgia

	US$ millions	% of GDP	US$ per professional
Europe	104956	2.21	96200
FSU	55712	5.66	32900
North America	193721	3.16	208100
Latin America	2860	0.40	17500
Developing countries	18325	0.64	24100
Industrial countries	434265	2.92	97300
World average	452590	2.55	86700
Georgia	8.5	0.20	894

Source: Unesco, Statistical Yearbook. Figures for Georgia refer to 1996. All others refer to 1990.

86. *Overstaffing*. As these figures suggest, the science sector in Georgia is overstaffed relative to its scarce resources, but it may also be overstaffed in absolute terms. Even after a 50 percent decline in staff following independence (as a result of migration and scientists leaving research for opportunities in the private sector), Georgia's science sector employs proportionately a much larger fraction of the population than is the norm in OECD countries. Moreover, the combination of overstaffing and scarce resources means that research expenditures per professional staff are significantly below world standards: in 1996 they are estimated at US$894, as compared to an average of US$ 24100 for middle-income developing countries. If one were to take the developing country average as a standard, the present science budget of Geogira could sustain 353 professional staff in the sector rather than the existing 9511.

Recommendations

87. There exist three potential sources of finance for the science sector in the near and medium term: the state budget, private enterprises and universities, and foreign assistance. The capacity of the latter, however, is likely to be very limited, and arguably other items on the Government's spending agenda could be of greater priority for the allocation of external funding. This means that essentially Georgia's science sector will have to rely on two sources of funding in the future: (a) shrinking public resources, which even with economic recovery will be insufficient to fund the sector as in the past; and (b) private enterprises, individuals and institutions which will have to gradually take over the main responsibility for the funding of R&D.

88. One important consideration needs to be taken into account in designing a strategy for financing the science sector, namely that indigenous technological development within Georgia *will not be a key input to economic growth even over the medium term*. The gap between Georgian and world technology in most sectors is so large that, at least for the next 10 to 20 years, Georgia should rely principally on using existing technologies available on the world markets at competitive prices. Most "emerging" developing countries, such as the tigers of East Asia, have relied on such use and absorption of existing technology to grow. The amount of public resources devoted to science should be in line with these considerations, and

build on the basis that the preservation of the old system may not be wise. The artificial survival of scientific institutes, endowed with so little resources by world standards, may be useless. Not only will these institutes not be able to develop their own projects, but will also likely fail to keep abreast of worldwide scientific developments because the resources for networking with information flows are not available either. It seems wiser to use scarce resources to ensure access, by a smaller scientific community, to international developments in technology and science, and to focus the governments efforts on facilitating the introduction and adoption of existing technologies.

89. Based on these considerations, key elements of a possible reform strategy for Georgia's science sector would include:

- A shift in resource allocation strategies from the financing of existing scientific institutes and staff positions to the funding of specific research projects, and with funds allocated on a competitive basis between research centers, universities etc. Research staff should not be treated implicitly, as they are today, as part of the civil service.

- A reduction in existing research staff, particularly at the non-professional level (which accounts for more than one-half of the staff of the research institutes). Much of this could happen endogenously if the mechanisms for financing of research were modified to focus on projects rather than staff positions.

- Privatization of those R&D centers and facilities than can survive by offering services to the private sector and by competing for public-sponsored and financed research projects.

- A transfer of the bulk of R&D responsibilities to universities, who may be able to find alternative resources of financing for research (through fees and other charges to students).

90. All of these measures should be accompanied by a gradual increase in the share of public funds allocated to science, within the limits of Georgia's tight budget. A realistic goal is to aim for a share of GDP allocated to R&D similar to the developing country average, which is currently about 0.6 percent of GDP. This would require a tripling of resources currently allocated to the sector. Given projections for strong GDP growth, and a gradual increase in the expenditure envelope, this could be achieved with a small annual increase of 0.05 percent of GDP in the resources allocated to science.

D. Social Protection

91. The economic crisis in Georgia has increased the need for social protection of the Georgian population, and at the same time reduced the government's capacity to pay for and administer social protection programs. A key aspect of future reforms must be to reduce the long-term burden of social protection on the state budget. In view of the government's limited capacity to raise revenues, the organization and financing of some types of social protection (namely forms of social insurance), will have to be shifted to private hands, including private pension plans and insurance companies.

Key Sector Issues

92. Georgia's social protection system faces two main problems. First, the system provides extremely low benefits to needy individuals (see description of the current situation in Annex 4). Second, the system has very limited capacity to raise significant new revenues to pay for higher benefits. *The present system is affordable in the long-run only if it continues to pay inadequate, and hence ineffective, benefits.* Moreover, even as the fiscal situation improves, the age structure of Georgia's population implies than

pension spending will claim a growing share of taxable earnings unless the system is reformed and eligibility standards made less generous.

93. *Restricting eligibility.* Too many Georgians are eligible to collect benefits under the current system. The biggest culprit is the pension system, which until very recently allowed a very high percentage of the population to collect a pension: in the first nine months of 1995, Georgia had as many people collecting pensions as it had workers contributing to the Social Security Fund (1 million of each).

94. *Shifting from social insurance to social assistance.* Publicly-provided social insurance is no longer a viable method for offering social protection in Georgia. It makes no sense to maintain a complex system that collects contributions and distributes benefits based on workers' official wages, which represent a minimal fraction (less than 10 percent) of total family incomes. Revenues will be too low to pay for the benefit levels needed to ensure a minimal consumption level. If social protection is to be provided through public budgets, it will be necessary to shift from a model of social insurance, which attempts to link benefits to contributions but in an ineffective way, to a model of social assistance which focuses on a minimal level of transfers. This would have the added benefit of reducing the distortions imposed by the payroll tax.[20]

Recommendations for Reform

95. In the short run, the government needs to hold down spending on pensions, and improve the targeting of social assistance so as to increase benefits to reasonable levels. In the medium run, it needs to put in place an alternative framework for financing social protection. Under this alternative, the government would provide only a minimal social safety net, financed out of government revenues, and leave it to employers and workers to finance sickness pay and more generous pensions for old age and invalidity.

- ***Restricting pension eligibility.*** As of March 1, 1996, the retirement age was increased from 60 to 65 for men, and from 55 to 60 for women. The reform included a "grandfather" clause so that no current pensioner would be deprived of his pension. The new age limit would apply only to new entrants. The increase in the retirement age will reduce the flow of new entrants to near zero over the next five years. Given Georgia's age structure, and mortality rates for those age cohorts, this should allow the stock of eligible pensioners to decline from just over 1 million in 1995 to under 400 thousand by the year 2004; the stock would then increase gradually thereafter, as individuals currently in the 55 to 59 cohort (for men), and 50 to 55 cohort (for women) reached the new retirement age. As a result of the decline in eligible pensioners, total spending on pensions is expected to decline from 12 percent of total spending in 1995, to about 6 percent in the year 2004 (Annex 3). Reduced number of beneficiaries, however, would allow for an increase in pension levels (although this would lag somewhat behind that of wages). The rationale for pensions increasing more slowly than wages is that the government would seek to provide only a minimum pension, which would be complemented by private schemes.

- ***Introduction of private pension plans and worker insurance.*** The government should prepare a regulatory framework to encourage workers, enterprises and financial institutions to establish privately funded pension schemes. If prudently regulated and supervised, this type of system would mobilize long-term savings, and provide improved income security to future retirees. In the short run, private pensions should not be made compulsory, since neither public nor private employers have the expertise to manage private pension plans. This kind of expertise can be developed during a transitional period

[20] A high payroll tax discourages workers from finding employment in the formal sector, and encourages employers to create jobs within the uncovered (untaxed) sector.

in which some employers experiment with alternative methods for managing voluntary private plans. A transitional period would also allow a fully functioning capital market to develop.

- ***Reducing the contribution rate***. In order to make room for a private pension system, the government must continue its efforts to reduce the present payroll tax rate. The combined contribution rate for the public system should not exceed 10 or 15 percent of taxable wages. In addition, responsibility for financing sickness pay for short-term illnesses and injury should be shifted from the UFSS to employers themselves.

- ***Eliminating the Employment Fund***. While Georgia may find it desirable someday to establish a functioning unemployment insurance scheme and labor market exchange, none of these activities are as urgent as some other government programs. They should be eliminated and those resources allocated to higher priority uses. The government has cut the contribution rate to the Employment Fund from 3 to 1 percent, but has stopped short of eliminating the Fund altogether. Since there is no real rationale for keeping the Fund operating, it should be closed down, and the remaining 1 percent contribution abolished. If deemed necessary, a minimal level of unemployment benefits (low as they are) can be kept, and financed out of general government revenues.

- ***Remaining components of the Georgian safety net***. The budget should retain primary responsibility for the remaining components of social assistance: children allowances for families with at least two children, allowances for refugees who cannot work; transfers to uninsured pensioners and invalids; and allowances for orphans. To increase benefits to more meaningful levels, these programs should be consolidated into a single, targeted social assistance scheme. A modest increase in the share of spending going to social assistance, from 8 to 10 percent of total spending, combined with better targeting along these lines, would permit an increase in the real average benefit parallel to that of pensions, and would bring it to about a third of the average wage (proxied by GDP per capita) within 5 or 6 years (see Annex 3). A larger share of spending on social assistance could be easily accommodated by the projected reduction in the pension burden.

E. Energy[21]

Overview

96. The economic decline in Georgia has been closely related to, and in part caused by, inadequate energy supply. Primary energy consumption peaked in the late 1980s at 14-15 million tons of oil equivalent, of which more than 85 percent was imported from other FSU republics, mainly Russia and Turkmenistan. As energy import prices rose to world levels, Georgia's capacity to import energy became progressively constrained. In 1994, only 4.9 mtoe or 38 percent of the 1990 level were imported, while total energy consumption fell to about 54 percent of 1990 consumption. Domestic production of hydropower, coal and oil declined over the same period as result of the accelerated deterioration of production facilities.

97. Failure to adjust domestic energy prices to the increasing supply costs, coupled with extremely low collection of payments over a prolonged period, brought energy enterprises into near-bankruptcy. Energy shortages almost paralyzed the economy: in winter of 1994/95, industry operated at 15 percent of capacity, largely due to the lack of energy.

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[21] Based on the Energy Sector Memorandum, June 1995 and discussions with staff.

Key Issues

98. The main issues facing Georgia's energy sector are:

- *Alleviating the energy shortage.* Georgia's ability to increase energy supply in the short-term is very limited. However, measures can be taken to allocate a larger fraction of rationed supply to the productive sectors of the economy (those that are able to pay for it), and to promote end-use efficiency and energy conservation.

- *Improving the financial position of energy enterprises.* This will require a concerted effort to increase collection of payments from customers, maintain tariffs above cost-recovery levels, and allocate energy using commercial principles.

- *Arresting the deterioration of existing equipment.* Improper operational practices in the power sector have severely damaged existing generating and end-use equipment. To prevent further damage, there must be clear efforts to adopt proper operational practices according to the accepted technical standards.

- *Rehabilitation of energy infrastructure.* For the past few years, there has been essentially no maintenance of existing infrastructure.[22] As a result, most of the facilities are in need of rehabilitation, ranging from enhanced maintenance to major reconstruction work.

- *Development of domestic energy resources.* Georgia has large untapped hydropower resources which can be developed in the medium- to long-term to the extent that is environmentally and economically viable.

The Role of the Public Sector in Energy

99. *In the short-term*, the goal for the energy sector should be to operate commercially, restructuring energy enterprises to make them more accountable and responsive to their economic environment, and introducing competition. *A first priority in this regard is to increase payment discipline*: current average collection rates of under 50 percent of supply (15 percent from residential consumers) are incompatible with the economic and financial viability of the energy enterprises. *In addition, prices should be set so that entities are self-sustaining*: tariffs should cover, at a minimum, full O&M costs, and should be increased to cover investment costs as soon as possible. Rough estimates suggest that for electricity a wholesale tariff of 3 US cents per kWh, and a retail tariff of 4.8 US cents per kWh would be sufficient to cover supply costs (not including depreciation, investment costs for distribution, nor a return on capital). Current wholesale tariffs are fairly close to these levels; retail tariffs, however, are significantly below. In gas, a short-term priority is installing meters, which will help consumers adjust their demand in response to changes in prices and will facilitate billing and collection. It is unlikely that in the short-term collections will improve sufficiently for the energy enterprises (especially power) to have adequate financing to fully cover necessary rehabilitation and maintenance. Some financing for these necessary investments will have to come from the budget.

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[22] In 1995, Sakenergo devoted less than 0.3 percent of its budget (some 5 million lari) to maintenance and repairs.

100. *In the medium-term,* sector policy should focus on moving the government out of its direct role in the sector, and into its new role as regulator. Existing energy facilities should be privatized (which will be key to attracting investment resources into the sector), and the sector opened to competition. In parallel, the government should design and out in place an appropriate regulatory framework for energy generation, transmission and distribution. It will also be crucial to create the right conditions to attract private domestic and foreign investment. This will include establishing a legal framework which guarantees the security of investments and allows investors to reap reasonable profits.

Investment Priorities

101. Investment priorities in the sector, their sequencing and volume should be determined on the basis of several criteria: (i) the condition of the existing capital stock; (ii) demand forecasts for the various forms of energy; (iii) potential for energy conservation and demand-side efficiency improvements; (iv) energy supply options: costs, reliability, contribution to reducing the dependence on fuel imports; (v) financing options and capabilities, with attention to attracting external resources; (vi) the contribution to integrating energy systems with neighboring countries (which argues for using Georgia's comparative advantage in hydropower); and (vii) project implementation and lead time.

102. Based on these criteria it is possible to extract some general guidelines for investment planning. First, *investments should emphasize rehabilitation of existing facilities, and measures to improve both supply and demand-side efficiency* and enhance energy savings. Second, theyshould *promote conversion to indigenous fuels/sources*, to the extent economically justified and technically feasible. Third, *regional cooperation should be enhanced* to take advantage of energy supplies that could be available at lower cost than if produced by existing or new facilities in Georgia.

103. Within the sector, *the priority should be investments in power*, which has proven the main bottleneck to the economy. Financial needs for this subsector for the next three years can be divided into:

- emergency maintenance to arrest further declines in generation capacity, and to improve the reliability of the existing transmission network (this includes primarily basic repairs and equipment replacement, at an estimated cost of US$10 million per year) plus urgent repairs to the dispatch and communications system (US$2 to 3 million per year over the next three years);

- rehabilitation of the hydro power units at Inguri and other hydro plants (which could restore an additional 350-600 Gwh per year at an estimated cost of US$ 65 million); and (iii) rehabilitation of some of the units at Gardabani (at a cost of US$50 to 60 million). Investments in reducing demand and improving end-use efficiency should be compared with these supply side alternatives.

104. Financing of the needed rehabilitation works in power would initially have to come primarily from external sources (financing of some US$70 million has been identified for 1996-97) and/or from budget resources. Given the fiscal constraints, however, it is unlikely that the budget could allocate more than US$[30 to 40] million per year (representing one-third to one-half of the capital budget).[23] Over the medium term, as the system is restored to its normal operation, and new projects become economically and financially viable, it will be necessary to attract more capital from the private sector (both domestic and foreign). To make such financing possible, the restructuring of the electricity sub-sector would have to

[23] The base scenario projects capital expenditures on the order of US$ 50 million for 1996, increasing up to US$ 124 in 1997, and US$ 190 in 1998.

proceed, with a modern legal framework put in place to encourage private participation either through build-operate-and-transfer or build-operate-and-own schemes.

F. Transport[24]

Overview

105. The transport sector has suffered significant deterioration during the last five years. Traffic volumes are down sharply in all modes of transportation. As of 1993 (the last year for which there is reliable data), railway traffic was down to about one quarter of 1990 levels (less than one sixth of the levels observed in 1988). Road traffic flows on the main artery (the East-West road from the Azeri border to the Black Sea) are presently estimated at 240-500 vehicles per day (vpd), down from previous levels of up to 10,000 vpd. Little, if any, maintenance has been done in any of the subsectors. In addition, the conflict in Abhazia has severely damaged road and railway infrastructure: several bridges on the critical link between the Black Sea ports and eastern Georgia were blown up; railway lines were vandalized, and the signaling system was destroyed.

106. The sector, with the exception of the aviation sub-sector, still operates under the organization and policy structures of the previous system. The absence of cost-recovery or resource mobilization efforts is pervasive, with the inevitable consequence of unfunded operating entities, poor service and a degradation of infrastructure and equipment. Due to almost complete lack of maintenance, existing infrastructure is in poor conditions across all sectors. In railways, for example, both the network and related structures are deteriorating, tracks are old, embankments are not well-maintained, and overhead lines are in need of repair. Over 20 percent of locomotives, and 30 percent of wagons are not operational, both of which contribute to reducing movement of trains and supply of wagons to customers. A typical transit time from Poti to Tbilisi is 17 hours, and the railways cannot supply more than 28 grain wagons per day to either Batumi or Poti for unloading of ships. In the road sector, secondary and tertiary roads have deteriorated badly. The main routes—the magisterial or East-West highway, and the North-South route from Russia to the Armenian border—are still adequate conditions to handle current traffic volumes, but are starting to decay; potholes have appeared in numerous stretches, lane markings have disappeared, and some key structures are in urgent need of repair.

107. Given the stringent fiscal situation, the government does not have the resources to operate the transport system on a pure public basis. The only alternative is for the sector to operate commercially, increase cost-recovery, and move towards the privatization of most transport services, and a great part of the asset base.

Strategy for Reform

108. A strategy for recovery of the transport sector includes the following elements:

- *Privatization of transportation services.* The sector should move quickly toward privatization, beginning with the privatization of small-scale services such as urban transport (buses and taxis), light trucking and maintenance in the road and rail sectors. Services which do not require large up-front investments could follow (specialized transport services, auxiliary services). Subsequent phases could focus on enterprises and services that require significant financial investments and or advanced technology (cargo-handling services at ports and airports, locomotive, ship and aircraft maintenance

[24] This discussion draws extensively on the "Georgia: Transport Sector Memorandum", January 1996.

services, airlines, trucking companies and shipping lines). Privatization should be accompanied by the deregulation and liberalization of the sector. Barriers to entry should be removed and competition encouraged.

- *Increasing cost-recovery on publicly-financed services*. Transport entities that remain under public ownership should be operated on a commercial basis. This will entail granting sector entities greater management autonomy , and giving them the instruments to mobilize their own resources and be self-sustaining. A first priority is to adjust tariffs, so that they fully cover operation, maintenance and investment. Presently tariffs cover only a minimal fraction of these costs: in urban transport, for example, cost-recovery ranges from 20 to 40 percent of costs depending on the municipality; in railways, freight tariffs are close to full cost-recovery levels, but tariffs on passengers barely recover 5 percent of costs. Second, collections have to be improved, and all special exemptions eliminated. Additional resources for the sector could also be generated by divesting of assets and/or relinquishing social welfare functions undertaken by some transport entities such as running schools or maintaining apartments. The Railway Department spent almost 5 million lari on capital construction (mainly apartment buildings) in the first nine months of 1995—equal to that spent on repairs of rail facilities.

- *Addressing key transport bottlenecks*. Even the above measures are implemented successfully, they are unlikely to generate sufficient resources in the immediate term to address key rehabilitation needs and critical bottlenecks in the sector. Some budgetary resources may have to be allocated to these tasks, either directly or as part of counterpart funding for externally financed projects. Efforts should focus first on rehabilitation, especially of road and rail infrastructure. Once this phase was completed, minimal new investment could be directed to alleviating bottlenecks in critical corridors (such as freight transport from and to ports).

Priority Expenditure Areas

109. The priority areas for public expenditure are:

- Development of an appropriate institutional and regulatory framework for the sector, so as to encourage entry and competition.

- Rehabilitation and maintenance of critical transport infrastructure. The cost of addressing the backlog of maintenance and repair needs on Georgia's main road network is estimated at US$85 million. This would comprise: (a) emergency repairs to stabilize and avoid further deterioration of about 1000 km of the main road network; and (b) full rehabilitation and maintenance on about 7000 km of main and secondary roads. Another US$6 million are needed for priority repairs in railways. For ports and airports, there appears to be significantly more potential for private investment (both domestic and external); hence the need for public resources is less urgent.

Table A1.1

Distribution of Consolidated Government Expenditure, 1995
(% of total expenditures)

	Republican	Local	Total
National Economy	10.63	6.32	16.95
Social and Cultural	38.51	7.66	46.18
Education	2.29	4.45	6.74
Culture	1.89	0.83	2.72
Health	3.03	2.10	5.13
Sports	0.23	0.11	0.34
Social Protection	19.41	0.10	19.51
o/w extrabudgetary	11.66	0.07	11.73
Science	1.17	0.01	1.17
Defence	8.46	0.03	8.49
Law Enforcement	9.90	0.22	10.11
Parliament	1.64	0.03	1.67
State Administration	2.84	1.15	3.98
Other Expenditures	3.58	1.89	5.47
Elections	0.42	0	0.42
Interest Payments			
Domestic	0.23	0	0.23
On Resch. Debt	9.72	0	9.72
External	2.80	0	2.80
Lari	0.82	0	0.82
Unallocated Expenditure	3.71	0	3.71
Total	82.76	17.24	100.0
Memo:			
Total Expenditure (th. lari)	357900	69200	427100

Source: Ministry of Finance, IMF and staff estimates.

Table A1.2:

Projected distribution of Consolidated Government Expenditure, 1996
(% of total expenditures)

	Republican	Local	Total
National Economy	9.08	7.28	16.36
Social and Cultural	32.61	8.05	40.66
Education	2.86	5.13	8.00
Culture	2.16	0.95	3.11
Health	5.00	1.72	6.72
Sports	0.15	0.14	0.29
Social Protection	22.45	0.10	22.55
o/w extrabudgetary	13.95		13.95
Science	1.88	0.00	1.88
Defence	9.27	0.04	9.31
Law Enforcement	10.24	0.26	10.50
Parliament	1.13	0.04	1.17
State Administration	2.12	1.31	3.44
Other Expenditures	6.98	2.91	9.89
Interest Payments	7.40		7.40
Total	80.11	19.89	100.0
Memo:			
Total Expenditure (th. lari)	582303	144592	726895

Source: Ministry of Finance, IMF and staff estimates.

Table A2-1
Means of Government Expenditures in Developing Countries by Regions
(Functional Classification, Average of 1985-89)

	E. Asia	S. Asia	S. Africa	LAC	MENA
I. Percentage of GDP					
Public Expenditure	6.34	6.21	6.88	5.30	9.88
Defense	2.07	2.59	1.81	1.62	5.59
Social Expenditure	7.96	5.80	5.72	5.64	9.14
Education	4.80	1.82	3.12	2.77	3.20
Health	1.75	0.94	1.29	1.22	1.47
Social Security & Welfare	0.66	1.35	0.53	0.88	2.71
Housing	0.56	1.02	0.64	0.57	1.08
Economic Services	6.12	7.21	5.72	3.65	6.66
Other Function Expenditure	4.21	4.19	5.20	4.05	4.68
II. Percentage of Total Expenditure					
Public Expenditure	28.22	29.22	29.66	30.63	35.59
Defense	10.87	11.99	8.46	9.74	21.01
Social Expenditure	33.51	26.50	26.18	31.34	28.59
Education	20.45	8.95	13.98	14.85	10.73
Health	7.03	4.20	5.47	7.21	4.35
Social Security & Welfare	3.09	5.66	2.29	5.48	8.23
Housing	2.19	5.36	2.44	3.11	3.28
Economic Services	25.17	30.56	22.19	18.56	20.47
Other Function Expenditure	18.26	16.07	21.64	18.63	16.27

Table A2-2
Means of Government Expenditures in Developing Countries by Regions
(Economic Classification, Average of 1985-89)

	E. Asia	S. Asia	S. Africa	LAC	MENA
I. Percentages of GDP:					
Total Expenditure	22.93	23.50	26.03	20.44	29.7
Current Expenditure	19.05	16.41	19.93	17.64	23.62
Goods & Services	12.35	9.42	13.78	9.63	13.05
Wages	8.08	3.63	7.73	6.26	7.88
Other Goods & Services	4.20	6.02	5.89	3.74	5.32
Interest Payment	2.98	3.50	2.89	3.56	2.72
Subsidy & Transfer	3.72	4.98	3.23	3.99	8.03
Capital Expenditure	3.83	8.48	5.54	3.00	6.08
Fixed Capital	3.03	7.78	4.07	1.82	3.46
II. Percentages of Total Expenditure					
Current Expenditure	83.42	69.05	77.69	85.96	81.24
Goods & Services	53.10	35.71	54.03	50.57	46.32
Wages	33.66	13.06	32.27	33.61	26.28
Other Goods & Services	19.11	23.27	21.24	16.05	15.21
Interest Payment	13.73	12.83	10.75	15.57	9.33
Subsidy & Transfer	16.58	19.20	12.83	19.82	26.28
Capital Expenditure	16.44	30.85	21.08	14.28	19.07
Fixed Capital	12.56	26.67	15.07	8.52	10.51

Source: GFS, local current currency

Fiscal Expenditures under Base Case Scenario

Thousands of Lari											
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Tot expenditure and net lend.	**454414**	**726765**	**994520**	**1267346**	**1584325**	**1937594**	**2249735**	**2536364**	**2858634**	**3190161**	**3557002**
Total expenditure	**427114**	**719065**	**994520**	**1267346**	**1584325**	**1937594**	**2249735**	**2536364**	**2858634**	**3190161**	**3557002**
(total check)	427114	719065	994520	1267346.247	1584324.757	1937594.33	2249735.273	2536364.129	2858633.634	3190161.191	3557002.167
Current expenditure	***392214***	***650869***	***845856***	***1036332***	***1250587***	***1502073***	***1701801***	***1874977***	***2109114***	***2359958***	***2612381***
(current check)	392212	650912	845856	1036332	1250587	1502073	1701801	1874977	2109114	2359958	2612381
(current minus unclass)	375012	615812	843085	1033676	1248762	1500480	1699309	1870069	2107014	2361811	2618896
Wages and salaries	*59500*	*96000*	*149178*	*209112*	*269335*	*348767*	*416201*	*469227*	*543140*	*622081*	*682944*
No. employees	366900	345700	324700	308700	292800	289800	289800	289800	289800	289800	284800
o/w education	163000	148000	125000	115000	105000	105000	105000	105000	105000	105000	105000
Chg. in emp (%)		-0.058	-0.061	-0.049	-0.052	-0.010	0.000				
Avg. wage	162.2	277.7	459.4	677.4	919.9	1203.5	1436.2	1619.1	1874.2	2146.6	2398.0
Avg. wage (% chg)		0.712	0.654	0.474	0.358	0.308	0.193	0.127	0.158	0.145	0.117
Avg wage/GDP pc	0.250	0.267	0.369	0.467	0.558	0.643	0.675	0.683	0.710	0.736	0.745
Population	5410000	5469510	5529675	5590501	5651997	5714169	5777024	5840572	5904818	5969771	6035438
Gov. emp over pop.		0.067	0.063	0.058	0.055	0.051	0.050	0.050	0.049	0.049	0.048
Other goods and serv.	*102500*	*201500*	*248630*	*304163*	*372316*	*445647*	*472444*	*481909*	*534564*	*590180*	*658045*
military and office su.	53200	122600	129288	152081.5497	166354.0995	193759.433	179978.8218	190227.3097	205821.6216	223311.2834	248990.1517
other current expend.	49300	78900	119342	152082	205962	251887	292466	291682	328743	366869	409055
health	9900	28847	49726	63367	79216	96880	112487	126818	142932	159508	177850
other	39400	50053	69616	88714	126746	155008	179979	164864	185811	207360	231205
Subsidies and transfers	*39300*	*62800*	*99452*	*133071*	*174276*	*232511*	*269968*	*291682*	*314450*	*350918*	*391270*
Social assistance	33200	62300	98717	130754	168218	222886	255629	274699	292438	322969	352809
Share recip. in pop		0.154	0.130	0.109	0.092	0.077	0.065	0.058	0.057	0.057	0.056
No. recipients	845000	845000	718250	610513	518936	441095	374931	337438	337438	337438	337438
o/w child allow.	525000	525000	**								
o/w refugees	275000	275000	**								
o/w social pensions	45000	45000	**								
o/w new prog (3%)			165890	167715	169560	171425	173311	175217	177145	179093	181063
Avg. benefit	39.3	73.7	137.4	214.2	324.2	505.3	681.8	814.1	866.6	957.1	1045.6
Avg. benefit (% chg)		0.877	0.864	0.558	0.514	0.559	0.349	0.194	0.065	0.104	0.092
Avg. benefit/GDPpc	0.061	0.071	0.110	0.148	0.197	0.270	0.321	0.344	0.328	0.328	0.325
Unemploy. benefits	*under SSN Fund******		735	2318	6057	9626	14340	16982	22012	27949	38461
Unemp. rate ***	0.023	0.024	0.030	0.030	0.035	0.035	0.035	0.030	0.030	0.030	0.030
Fraction recipients	0.012	0.015	0.050	0.100	0.150	0.200	0.250	0.300	0.350	0.400	0.500
Avg. benefit	26	73	161	252	373	440	519	591	651	716	780

Fiscal Expenditures under Base Case Scenario

Other subsidies	5400	500	0	0	0	0	0	0	0	0	0
Interest payments	*54612*	*53808*	*82393*	*8[illegible]440*	*96112*	*110083*	*12953[illegible]*	*14695[illegible]*	*165305*	*1[illegible]9035*	*193669*
Extrabudgetary SSN	*49900*	*101400*	*124200*	*122461*	*11491[illegible]*	*92210*	*96196*	*125202*	*149346*	*1[illegible]2975*	*194987*
Pensions	48324	98197	124200	122461	114917	92210	96196	125202	149346	172975	194987
No. pensioners (th)	1005	735.6	500.2	340.1	231.3	157.3	139.1	158.8	172.2	181.3	187.5
Avg. pension	48.1	133.5	248.3	360.0	496.8	586.3	691.8	788.7	867.5	954.3	1040.2
Avg. pension (%chg)		1.776	0.860	0.450	0.380	0.180	0.180	0.140	0.100	0.100	0.090
Avg. pension/GDPpc	0.074	0.128	0.199	0.248	0.301	0.313	0.325	0.333	0.328	0.327	0.323
Emp. Fund	1576.0	3203.0									
No. recipients	808		**** consolidate unemployment benefits under social assistance								
Avg. benefit	26										
Unclassified expend.	*1[illegible]200*	*35100*	*2[illegible]0*	*2656*	*1825*	*1593*	*2492*	*4908*	*2100*	*-1853*	*-6515*
Local government exp.	*69200*	*100304*	*139233*	*1[illegible]428*	*221805*	*2[illegible]1263*	*314963*	*355091*	*400209*	*446623*	*49[illegible]980*
Capital expenditure	***34900***	***68196***	***148664***	***231015***	***333738***	***435521***	***547935***	***661387***	***749520***	***830203***	***944621***
Net Lending	**27300**	**7700**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
NOTES: local government put under current expenditure, but a fraction subsumed under capital. In 1996: 16.4 mill of local moved to capital.A17											
* Social pensions under social assistance											
** Difference between total number of recipients and new program to be allocated among child allow, refugees and social pensions.											
*** registered unemployed over active population											
Subsidies/GDP (Assumption)	0.15%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Revenue/GDP	7.1%	9.4%	11.3%	12.7%	14.1%	15.5%	16.6%	16.8%	17.3%	17.6%	17.6%
Expenditure/GDP	12.9%	12.8%	14.5%	15.7%	17.1%	18.2%	18.4%	18.5%	18.5%	18.5%	18.5%
Fiscal Deficit/GDP(exclgrants)	-7.8%	-4.2%	-3.8%	-3.5%	-3.3%	-3.0%	-2.0%	-1.8%	-1.4%	-1.0%	-1.0%

Fiscal Expenditures under Base Case Scenario

Annex 3

(% of total expenditures)											
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total expenditure	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Current expenditure	0.92	0.91	0.85	0.82	0.79	0.78	0.76	0.74	0.74	0.74	0.73
Wages and salaries	0.14	0.13	0.15	0.17	0.17	0.18	0.19	0.19	0.19	0.20	0.19
Other goods and serv.	0.24	0.28	0.25	0.24	0.24	0.23	0.21	0.19	0.19	0.19	0.19
Military and office	0.12	0.17	0.13	0.12	0.11	0.10	0.08	0.08	0.07	0.07	0.07
Other	0.09	0.07	0.07	0.07	0.08	0.08	0.08	0.07	0.07	0.07	0.07
Health	0.02	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Subsidies and transfers	0.09	0.09	0.10	0.11	0.11	0.12	0.12	0.12	0.11	0.11	0.11
Social assistance	0.08	0.09	0.10	0.10	0.11	0.12	0.11	0.11	0.10	0.10	0.10
Unemp. benefits	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other subsidies	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest payments	0.13	0.07	0.08	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.05
Extrabudgetary SSN	0.12	0.14	0.12	0.10	0.07	0.05	0.04	0.05	0.05	0.05	0.05
Unclassified expend.	0.04	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Local government exp.	0.16	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
Capital expenditure	0.08	0.09	0.15	0.18	0.21	0.22	0.24	0.26	0.26	0.26	0.27
Check total	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Check current	0.92	0.91	0.85	0.82	0.79	0.78	0.76	0.74	0.74	0.74	0.73

Pension Reform Calculations											
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Old-Age Pensions											
Actual recipients (p.a.)	1005.0	735.6	500.2	340.1	231.3	157.3	139.1	158.8	172.2	181.3	187.5
Eligible pensioners ('000s)	1050.0	735.6	500.2	340.1	231.3	157.3	139.1	158.8	172.2	181.3	187.5
Stock (1-m)	1050.0	703.5	492.9	335.1	227.9	155.0	105.4	93.2	106.4	115.3	121.4
New entrants		64.2	0	0	0	0	32.1	64.2	64.2	64.2	64.2
adj factor (1)		-32.1									
adj factor (2)			7.4	5.0	3.4	2.3	1.6	1.4	1.6	1.7	1.8
Avg. benefit	48.1	133.5	248.3	360.0	496.8	586.3	691.8	788.7	867.5	954.3	1040.2
Avg. benefit (% chg)		1.776	0.860	0.450	0.380	0.180	0.180	0.140	0.100	0.100	0.090
Avg. benefit/GDP pc	0.074	0.128	0.199	0.248	0.301	0.313	0.325	0.333	0.328	0.327	0.323
Total expenditures	48324	98197	124200	122461	114917	92210	96196	125202	149346	172975	194987
(1) New legislation effective mid-1996		(2) allowance for eligible working pensioners to come in (1% of stock) - also a buffer									
Age structure - men											
65 +	202.1										
60-65	132.3		Note: 1995 pensioners males (60+) + females (55+) = 1035.8 eligible								
55-59	143.5										
50-54	151.6										
45-49	103										
<45	1974.5										
Total population	2574.7										
Age structure - women											
60 +	538.7										
55-59	162.7										
50-54	177.5										
45-49	114.6										
<45	1836.4										
Total population	2829.9										
Note: m =mortality rate for FSU age group 60-75 (1990 - WDR 1993)											

Projections for Unemployment Benefits

Annex 3

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Revenues	4788.0	3409.6	5156.9	7283.6	9746.4	12775.7	16484.9	20619.2	25532.6	31059.7	38483.0
GDP mill. lari	3513.1	5682.6	6875.9	8092.9	9282.3	10646.4	12211	13746.1	15474.3	17255.4	19241.5
wage bill (% GDP)	0.045	0.060	0.075	0.090	0.105	0.120	0.135	0.150	0.165	0.180	0.200
wage bill	159.6	341.0	515.7	728.4	974.6	1277.6	1648.5	2061.9	2553.3	3106.0	3848.3
Expenditures	1580	3400	735	2318	6057	9626	14340	16982	22012	27949	38461
Unemp. rate ***	0.023	0.024	0.030	0.030	0.035	0.035	0.035	0.030	0.030	0.030	0.030
Registered UE (th)	70	72	91	92	108	109	111	96	97	98	99
No recipients UI	808	1082	4553	9197	16256	21891	27637	28711	33831	39051	49302
Recipients Registered	0.012	0.015	0.050	0.100	0.150	0.200	0.250	0.300	0.350	0.400	0.500
Avg. benefit	26	73	161	252	373	440	519	591	651	716	780
Avg. benefit (% chg)		1.824	1.198	0.562	0.479	0.180	0.180	0.140	0.100	0.100	0.090
Other exp	1559	3321	0								
Active population	2961.6	3005.3	3035.3	3065.7	3096.3	3127.3	3158.6	3190.1	3222.0	3254.3	3286.8
Act/Total	0.55										

Brief Summary of Georgia's System of Social Protection

The official social protection system in Georgia consists of several programs, of which the most important are pensions and child allowances. In practice, most social protection is provided through transfers within extended families and through the subsidized, public provision of services such as housing, electricity and municipal services

United Fund for Social Security (UFSS). The extrabudgetary UFSS accounts for the bulk of social protection expenditures: it finances old age and invalidity pensions, survivors insurance for relatives of deceased, insured workers, and sickness and maternity benefits for active workers. The Fund receives revenue from a payroll tax imposed on both employers and workers.[1] The Fund also administers "social pensions"—those paid to invalids and pensioners over 64 who have not become insured under the regular pension program—and allowances to children without fathers or with non-working parents. Both of these transfers are financed from the state budget.

In 1995, outlays from the UFSS represented 12 percent of total expenditures (1.6 percent of GDP), while additional social assistance programs accounted for another 8 percent of expenditure. Just over 1 million eligible pensioners and invalids received a flat-rate pension which averaged about 4 lari per month (just over US$3). Another 45,000 non-working pensioners received slightly lower "social pensions". Despite the low level of benefits, the Fund ran a deficit for the year equal to approximately 7.9 millions of lari. These financing problems are due to the low level of contributions—the result of the comparatively small number of contributors and the extremely low level of wages in the formal sector. These problems are vividly illustrated by the fact that the total wage bill reported to the UFSS is less than 4 percent of Georgia's GDP.

Employment Fund. The Employment Fund provides job search assistance and unemployment benefits to the unemployed. The latter are available to workers with recent work experience who have been unemployed for at least two months. For the first two months of unemployment, workers are expected to subsist on the severance wages paid by their former employer. During the following six months they receive unemployment benefits on a declining scale.[2] Benefit levels are so low that the majority of Georgia's relatively few unemployed workers (under 1 percent of the labor force), do not bother to collect them. As a result, total outlays by the Employment Fund on unemployment benefits in 1995 were a miniscule 21,000 laris, or 1 percent of the Fund's total expenditures for the year. Retraining expenses accounted for a similarly tiny fraction of expenditures. Administrative costs and the costs of running the labor exchanges jointly represented between 15 and 20 percent of the Fund's spending. The remainder of available funds were used in "job creation" schemes of little known effectiveness.

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[1] Until February 1996, payroll contributions were set at 37 percent of payroll for state-owned and private enterprises, 26 percent for budgetary organizations, and 1 percent for employees. Effective March 1, 1996 the employer contribution for non-budgetary employers was reduced by 8 percentage points. This was accompanied by an increase in the retirement age from 60 to 65 for men, and from 55 to 60 for wome (see below).

[2] Equal to 3.5 laris per month during months 3 and 4; 2.6 laris during months 5 and 6; and 1.8 lairs during months 7 and 8.

Child Allowances and Refugee Assistance. The remaining parts of Georgia's safety net are financed out of general government revenues. There are three principal forms of assistance: pensions to those who are not insured under the regular scheme (the "social pensions"); child allowances for children under 18 (which go to families with at least two children); and assistance to refugees from civil conflicts in Abkhazia and other regions of Georgia. According to central budget figures, about 525,000 children received allowances in 1995. The monthly allowance for children in urban areas was 1.6 lari per month until November, when it was raised to 2 laris per month; the allowance for rural areas was kept at 1 lari for the full period. Approximately 275,000 refugees are receiving monthly cash assistance (3.5 laris per month, increased to 6 laris in November); one-quarter of them also live in state-provided housing. Aid to refugees represents one of the largest items in Georgia's social protection budget. In 1995, the total amount spent on refugees was almost twice that spent on child allowances and on transfers to uninsured pensioners; and nearly half of that spent on invalidity and old-age pensions.

IMAGING

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