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Republic of Moldova: Recent Economic Developments

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INTERNATIONAL MONETARY FUND

REPUBLIC OF MOLDOVA

Recent Economic Developments

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Approved by European II Department

July 30, 1999

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Social and demographic indicators (1996)		
Area (including Transnistria)	33,800	sq. km.
Population	3.6	million
Share of urban population	46	percent
Rate of population growth	-0.3	percent
Life expectancy at birth (1995)	65.8	years
Infant mortality rate (per 1,000 live births)	20.2	
Hospital beds (per 10,000 people)	121.4	

	1994	1995	1996	1997	1998
GDP 2/					
Nominal GDP	5,505	7,545	8,828	10,118	10,119
GDP per capita (in US$)	377	467	533	608	523
Real GDP (percentage change)	-31.2	-1.4	-7.8	1.3	-8.6
Sectoral distribution of GDP 3/					
(in percent of total)					
Agriculture and fishing	29	33	31	30	29
Manufacturing, energy, and processing	33	28	28	29	26
Construction, services and other	38	39	41	41	45
Trade					
Exports of goods (US$ millions)	618	739	823	890	644
(in percent of GDP)	45.9	44.0	42.9	40.7	34.2
Imports of goods (US$ millions)	672	794	1,075	1,235	1,043
(in percent of GDP)	50.0	47.2	56.1	56.4	55.3
Current Account (in percent of GDP)	-7.2	-6.8	-9.8	-12.3	-17.7
General Government 4/					
Total revenue	1,847	2,556	2,835	3,671	3,505
(in percent of GDP)	33.5	33.9	32.1	36.3	34.6
Total expenditure and net lending	2,347	2,993	3,418	4,362	3,804
(in percent of GDP)	42.6	39.7	38.7	43.1	37.6
Overall balance (cash)	-501	-437	-583	-691	-300
(in percent of GDP)	-9.1	-5.8	-6.6	-6.8	-3.0
Money and Credit (end of period)					
Net foreign assets 5/	216	233	271	484	-630
Domestic credit	973	1,523	1,804	2,310	3,295
Claims on general government (net)	308	489	469	804	1,534
Broad money (M3)	753	1,244	1,434	1,922	1,756
Other selected indicators					
Consumer prices (percentage change)					
Annual average	329.7	30.2	23.5	11.8	7.7
End-period	116.1	23.8	15.1	11.1	18.2
Average nominal wage (percentage change)	244.2	32.1	30.7	17.5	13.9
Exchange rate (Mdl/US$)					
Annual average	4.06	4.49	4.60	4.62	5.37
End-period	4.27	4.50	4.65	4.67	8.32

Sources: Moldovan authorities; and Fund staff estimates.

1/ Data exclude Transnistria.
2/ GDP data include a staff-estimated allowance for the shadow economy.
3/ Based on share of value added at current prices.
4/ On a cash basis; includes the Social Fund and extrabudgetary funds.
5/ At actual exchange rates.

I. INTRODUCTION AND BACKGROUND

1. Moldova is a small landlocked country in the northeastern Balkans, bordering Ukraine in the north, east, and south and Romania in the west. A moderate continental climate with mild winters and rich, fertile soils have favored agricultural production and processing, which currently account for about 50 percent of GDP. Following the collapse of the Soviet Union and Moldova's independence in 1991, output dropped sharply and inflation soared, but, through mid-1998, substantial progress has been made in financial and macroeconomic stabilization. Since the Russia crisis hit in August-1998, output has further declined, macroeconomic imbalances surged and the financial situation has become fragile. Efforts are focused on regaining financial stability and sharply accelerating structural measures and institutional reforms needed to lay the foundation for recovery and sustainable economic growth.

2. Moldova was affected by a sharp deterioration in its terms of trade, the loss of traditional markets, and disruptions in payments and trade relations after the break-up of the Soviet Union. The adverse effects on output were compounded by droughts in 1992 and 1994, and an internal conflict in 1992 over the independence of the Transnistria region (the area of Moldova to the east of the Dniestr river). As a result, real GDP declined by more than 50 percent between 1991 and 1994. At the same time, annual inflation soared, peaking at almost 2,200 percent in 1992, following the liberalization of prices and the monetization of a fiscal deficit of 26 percent of GDP. In 1993, the authorities adopted a comprehensive program of financial stabilization supported by a stand-by arrangement with the Fund.

3. By 1995, the fiscal deficit had been cut to 5¾ percent of GDP and annual inflation had fallen to 24 percent. Exports and imports recovered rapidly, with the current account deficit narrowing to 8½ percent of GDP. In 1996, the authorities adopted a three-year program to accelerate and deepen structural reforms and consolidate the stabilization effort. Performance in 1996 and 1997 was mixed. While annual inflation was further reduced to 15 percent at end-1996 and 11 percent at end-1997, the cash fiscal deficit rose in 1996 to nearly 7 percent, where it remained in 1997. Reflecting this, the external current account deficit widened to 13 percent of GDP.

4. While early progress had been made in liberalizing prices, financial transactions and trade, more generally structural transformation has lagged, especially in agriculture and large–scale enterprises, notably in the energy and utility sectors. Only limited progress has been achieved in enforcing hard-budget constraints in the public sector, which has accumulated large debts and arrears on energy, wages and pensions. Barter is still prevalent in the economy, and significant offsetting operations have been supported by the government. Growth in national income has yet to be achieved on a self–sustainable basis.

5. 1998 proved to be a difficult year, as initial steps by a new government to reenergize structural reform were overwhelmed by the shock to the economy of the crisis in Russia from mid–August. Exports to BRO countries (about 2/3 of the total) dropped by 60 percent in the second half of 1998, and payments were frozen. Under this pressure, the exchange rate

depreciated by 45 percent, and inflation reemerged. Notwithstanding significant expenditure cuts at the year-end, the budget deficit, on a commitments basis, remained at around 8 percent of GDP, about the average level of the previous three years. The external current account deficit widened sharply to 18 percent of GDP, and both domestic and external arrears continued to accumulate.

II. RECENT MACROECONOMIC DEVELOPMENTS

A. Real Sector Developments

Output and demand

6. **Real GDP**[1] has continuously declined through 1998, with the exception of a slight increase in 1997. On average, GDP is estimated to have fallen an annual average of around 12.7 percent per year since 1993, bringing the cumulative decline since independence to about 70 percent. The sharpest declines were recorded in 1994, 1996, and 1998, the first two owing to poor harvests and the latter reflecting a collapse in exports following the crisis in Russia in August. Estimates for 1998 showed GDP declining 8.6 percent (Table 1), reflecting a sharp drop in agricultural output and in industrial production (Figure 1).

Table 1. Gross Domestic Product, 1993-98

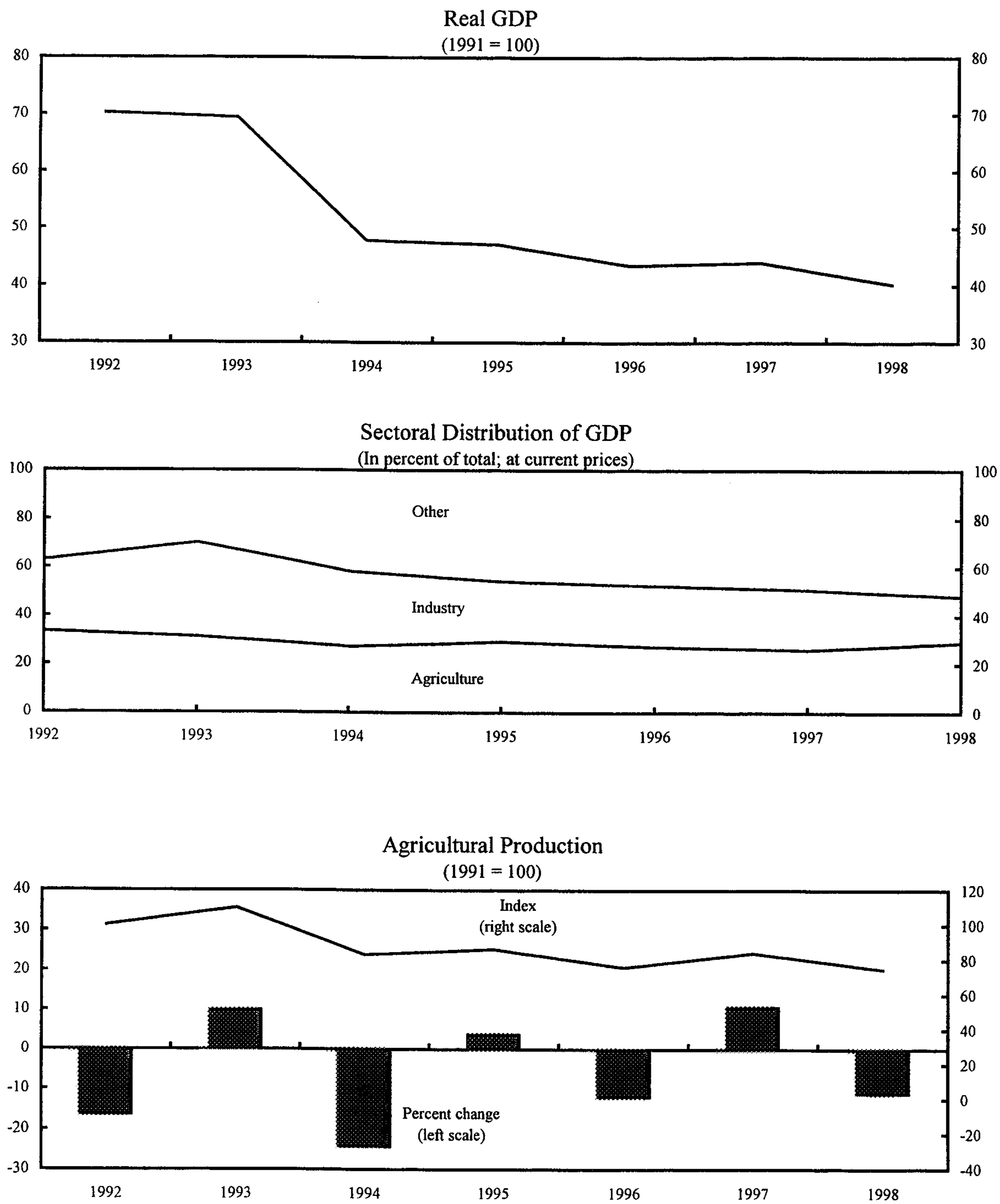
	1993	1994	1995	1996	1997	1998
Real GDP (percentage change)	-1.2	-31.2	-1.4	-7.8	1.3	-8.6
Nominal GDP (MDL millions)	2,137	5,505	7,545	8,828	10,118	10,119

Source: Table 27.

7. On **an expenditure basis**, estimates, although rough, indicate a further steady increase in the share of private consumption expenditure to over 95 percent of GDP, up from 75 percent in 1994. Gross capital formation is estimated to have increased steadily to almost 30 percent of GDP. The external resource imbalance also continued to rise relative to GDP, to around 25 percent from 20 percent in 1997. However, one welcome development has been the moderated contribution of stock holdings at around 4 percent of GDP, down from 15 percent in 1995 (Appendix Tables 27 and 28).

[1]Although national accounts data are compiled according to the *1993 SNA* methodology, the coverage of the reporting system remains narrow and a sampling system is not yet in place. The GDP used in this report is GDP by expenditure, excluding Transnistria, but with an additional adjustment for the shadow economy.

Figure 1. Moldova: Output Indicators, 1992-1998



Sources: Moldova Department of Statistics; and Fund staff estimates.

8. On the supply side, **agricultural production** declined further in 1998, by 11 percent, to about 60 percent of its level at independence. Grain production declined 22 percent from the bumper crop levels of 1997, but remained above the levels of 1994-96 (Appendix Table 29). Oilseeds and sugar declined markedly, but vegetables grew to levels not seen since 1995. Livestock and related production, with the notable exception of pigs and pork, also generally continued to decline (Appendix Table 30). Private agriculture is becoming increasingly important, as the land privatization program is implemented. Private farmers' share of total output is estimated to have reached around 60 percent in 1998.[2]

9. **Industrial production** has not yet stabilized, falling a further 16.5 percent in 1998, although official statistics appear to overstate the decline. The 1998 decline was almost entirely in the second half, and appears to have reversed a period of stabilization, and even modest recovery, which had been evident from the second quarter of 1997 (Appendix Tables 31 and 32). Declines have been particularly marked in the inefficient heavy industry sector, while some light industry groups, notably clothing manufacture, have grown in 1998. The food processing sector was particularly hard hit by the crisis in Russia, Moldova's principal market, as incomplete reforms continue to limit export potential to non-CIS markets.

Labor markets

10. Official labor statistics are not regarded as particularly reliable. Unemployed workers were officially recorded at some 32,000 at end-1998, or less than 2 percent of the civilian work force (Appendix Table 33). A pilot labor force study conducted in mid-1998 found a labor force of 49 percent of total population or some 1.7 million workers, and an **unemployment rate of around 9.5** percent, 60 percent of which were men. However, this number also likely understates unemployment, as unpaid leave (officially around 150,000), part-time employment (officially 40,000), compounded by payments difficulties (arrears and payments-in-kind) constitute a well documented and widespread phenomenon. Workers who receive benefits constitute only a tiny fraction (about 8 percent) of those officially unemployed.

[2] See Section IV, Agricultural Sector Reforms, for a more detailed discussion.

Table 2. Employment by Sector, 1995-98
(in thousand)

	1995	1996	1997	1998
Agriculture, hunting and related services	560.3	523.4	474.0	411.2
Manufacturing Industry	185.5	158.0	140.5	125.1
Electric energy, gas & water supply	20.9	19.7	20.3	22.7
Construction	50.8	42.4	34.7	29.8
Wholesale and retail trade	49.0	57.3	48.8	40.6
Transport, warehousing & communications	48.5	63.2	58.5	56.3
Financial activity	8.0	9.8	8.6	8.1
Real estate activity	33.2	26.7	26.6	27.9
State administration	26.8	29.3	48.0	52.0
Education	154.8	146.9	145.3	142.5
Health & Social services	93.9	91.2	88.8	86.7
Total	1286.8	1210.1	1126.6	1033.2

Source: Data provided by the Moldovan authorities.

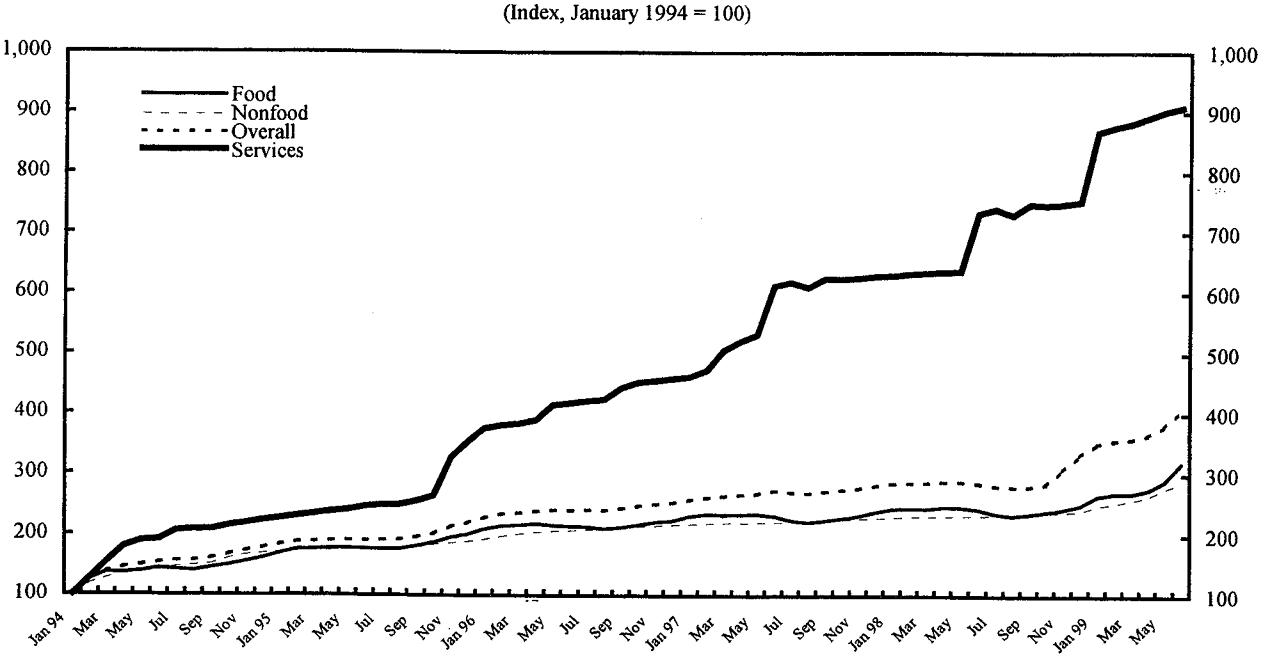
11. **Agriculture continues to be the largest employer** (in reporting enterprises of 20 or more workers), at around 40 percent of total employment, followed by education and manufacturing at 14 percent and 12 percent, respectively. Together agriculture and manufacturing have given up 8 percentage points of their overall share in total employment to the service sectors since 1995. This is almost certainly an under representation of the shift in employment to the service and informal sectors, as overall employment reported has declined by around 20 percent since 1995 (Table 2).

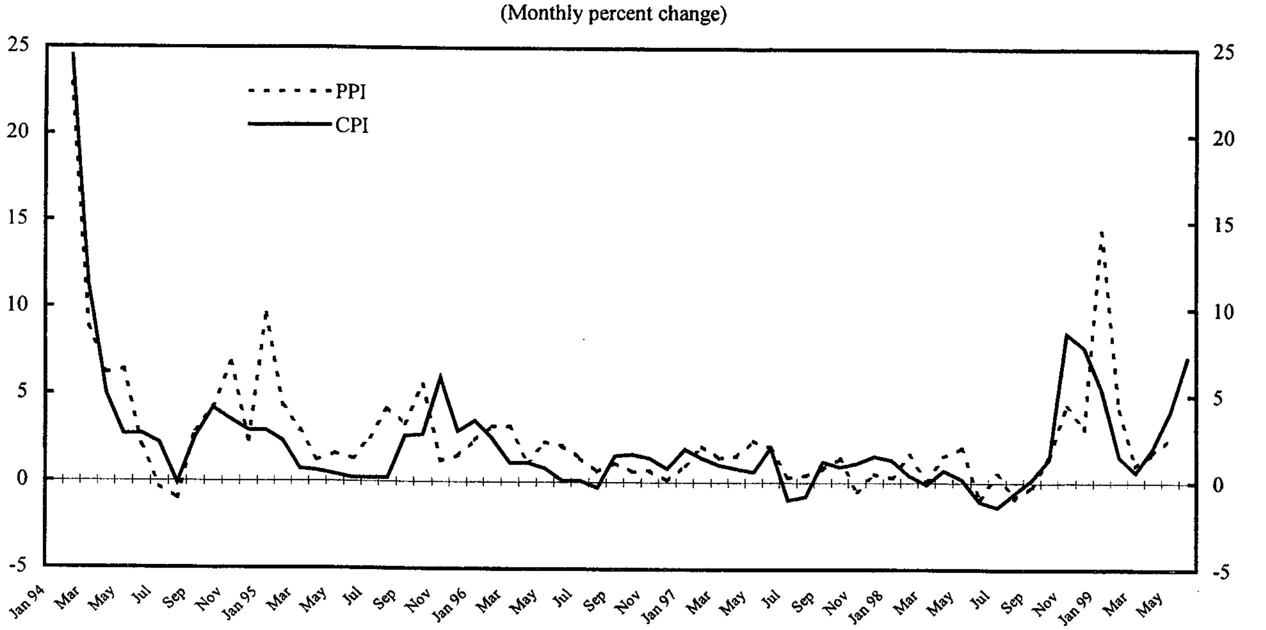
Wages and Prices

12. The secular trend to widened **wage differentials** continued in 1998, with wages in the financial sector averaging more than 2.5 times the level in the next highest industry group, a 30 percent increase in real terms (Appendix Table 34). The lowest wages were recorded in forestry (about US$26/month), with wages in the health and education sectors next lowest (around US$33/month). Official economy-wide wage data indicate an **average monthly wage** in 1998 of Mdl 252, up 15.3 percent, or about 7 percent in real terms. In US dollar terms, the average wage actually declined slightly in 1998 to US$47. Reflecting the surge in inflation in late 1998, as well as the sharp depreciation of the exchange rate, average monthly wages in December reached Mdl 350, an increase of 43 percent over December 1997, 21 percent in real terms. In the first half of 1999, wages rose in nominal terms, but at end-May were down 5 percent in real terms, year-over-year, and amounted to the equivalent of US$26.

13. **Consumer price inflation** had been reduced to virtually zero up until the Russia crisis in August 1998. Reflecting a disciplined monetary policy, inflation had been on a steady downward path since the introduction of the leu in 1993 (Appendix Table 35 and Figure 2). However, as a result of the crisis in Russia, strong pressures mounted in the exchange market, investors pulled

Figure 2. Moldova: Prices, 1994-1999





Sources: Moldova Department of Statistics; and Fund staff estimates.

out of the treasury bill market and the central bank was obliged to step in with emergency liquidity for the government. Inflation surged to over 8 percent monthly in November/December 1998 before easing considerably in early-1999. While the overall average CPI increased 18.3 percent in 1998, the subcomponents behaved very differently. Prices for food, non-food, and services rose by11.4 percent, 20.7 percent and 34.2 percent, respectively. The much sharper rise in the price of services, reflected adjustments in tariffs for energy and utilities to near cost-covering levels. Following an **updated household budget survey** in 1997, the relative shares of food, nonfood and services were adjusted as of January 1999 with a shift of 8 percentage points from non-food to food.[3]

B. Fiscal Sector

Background

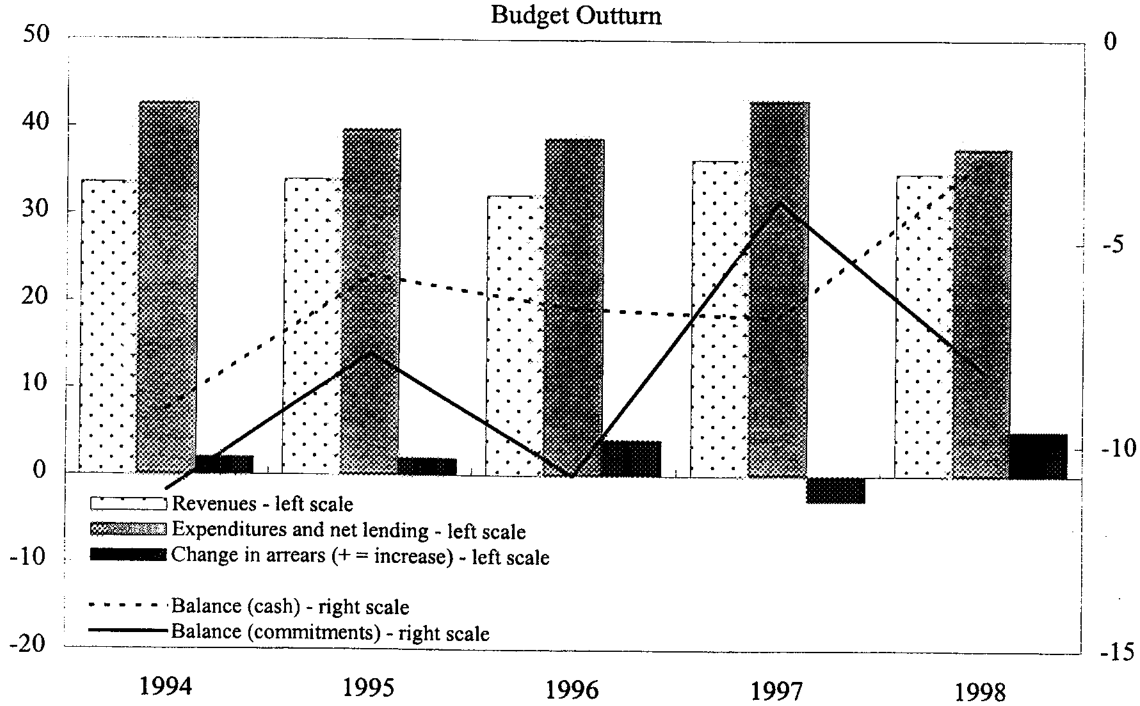
14. Since 1995, Moldova's fiscal performance has been erratic (Table 3 and Figures 3 and 4). Total revenues have oscillated between 32.1 percent of GDP in 1996 and 36.3 percent of GDP in 1997. Expenditures have increased from 38.8 percent of GDP in 1995 to 42.8 percent of GDP in 1997. The cash balance deteriorated steadily between 1995 and 1997. Improved revenue performance in 1997 allowed for a reduction in domestic expenditure arrears amounting to 2.9 percent of GDP and this led to a significant improvement in the budget balance on a commitments basis. In the period 1995–97, financing options were diversified; access to foreign financing and domestic bank and nonbank credit reduced reliance on central bank financing.

15. Moldova's public finances deteriorated in 1998, largely due to poor revenue collection. Expenditures were compressed on a cash basis, and the government failed to limit expenditure commitments. The cash deficit of the general government reached 3.0 percent of GDP (as opposed to the program target of 2.4 percent of GDP), a significant improvement with respect to 1997. Nevertheless, this cash improvement contrasts sharply with the deterioration of the commitments balance. The deficit reached 8.1 percent of GDP on a commitments basis, relative to the program target of 7.3 percent of GDP. In 1998, the end-year stock of domestic expenditure arrears reached Mdl 1,109 million, or 10.9 percent of GDP (Appendix Table 36). In the first half of 1999, the commitments deficit reached 5.1 percent of annualized GDP, while the cash deficit reached 2 percent of GDP. Domestic expenditure arrears continued to be accumulated, but some progress was made in clearing external interest arrears.

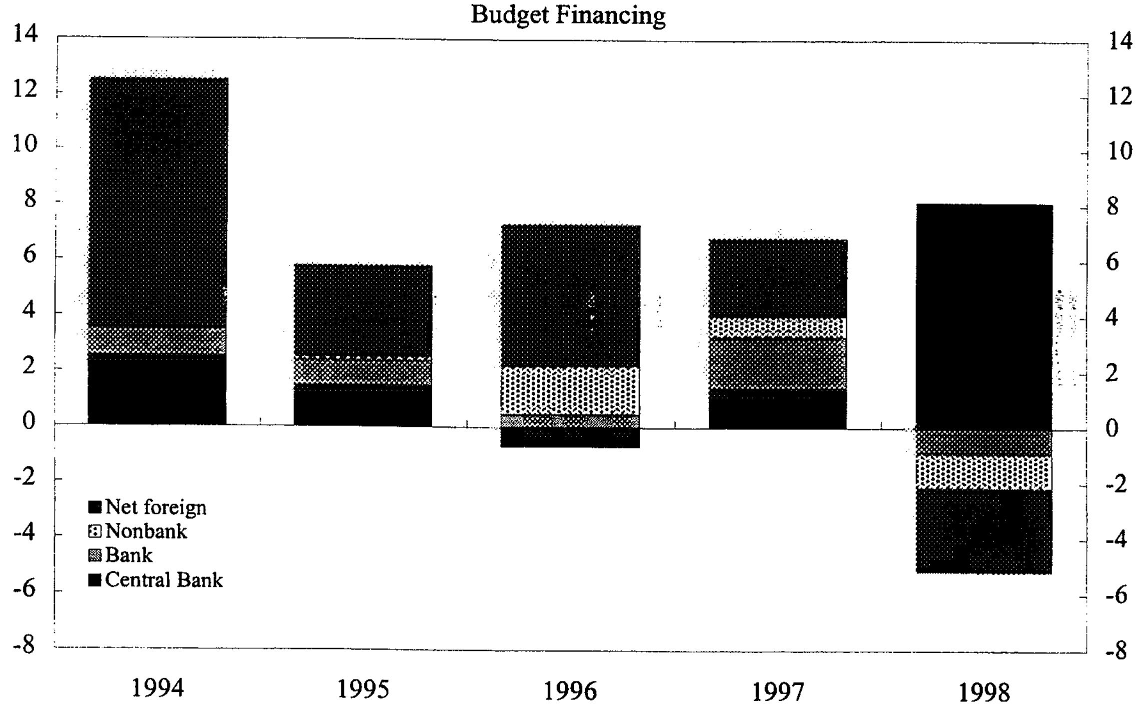
[3] The relative shares of food/non-food/services was changed from 492/34.2/16.6 percent, respectively, to 57.3/26.0/16.7 percent.

Figure 3. Moldova: General Government, 1994-1998
(In percent of GDP)

Budget Outturn



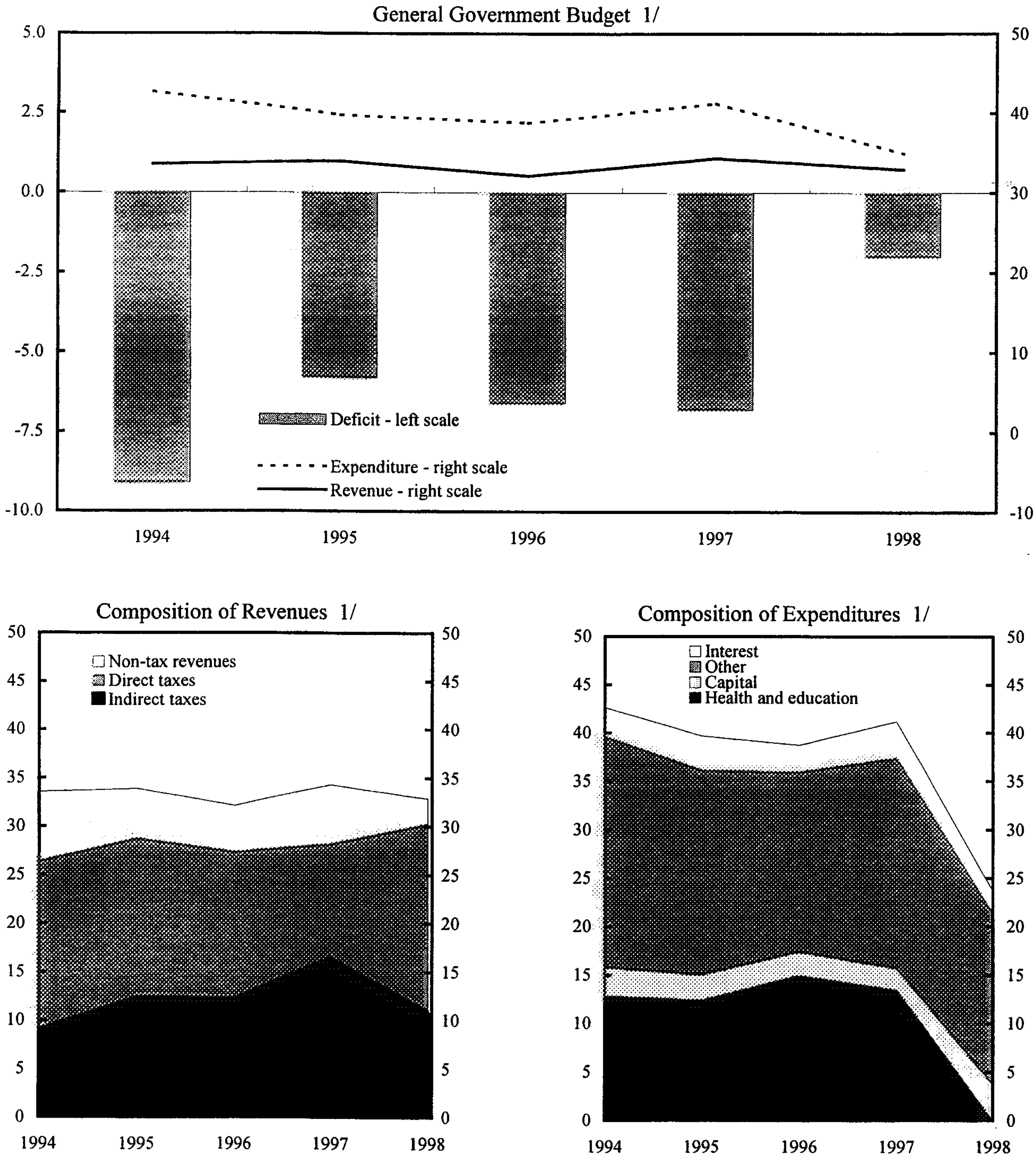
Budget Financing



Source: Data provided by authorities; and Fund staff estimates and projections.

Figure 4. Moldova: Fiscal Indicators, 1994-1998

(In percent of GDP)



Sources: National Bank of Moldova, Ministry of Finance; and Fund staff estimates.

1/ Cash basis; includes Social Fund operations on gross basis.

Table 3. General Government Budget, 1995-98
(In percent of GDP)

	1995	1996	1997	1998
Revenues	33.9	32.1	36.3	34.6
Of which: Tax revenues	28.8	27.4	29.9	29.0
Expenditures (cash)	38.8	40.2	42.8	37.3
Of which: Interest payments	3.5	2.8	3.7	4.2
Change in arrears	1.9	4.1	-2.9	5.2
Cash deficit	5.8	6.6	6.8	3.0
Commitments deficit	7.7	10.7	4.0	8.1
Financing				
Net domestic	2.5	1.5	4.0	6.0
Central Bank	1.5	-0.7	1.4	8.1
Commercial banks	0.9	0.5	1.9	-0.9
Nonbank	0.1	1.7	0.8	-1.3
Net foreign	3.0	5.1	2.8	-3.0
Of which: Change in arrears	0.0	0.0	0.0	2.7

Sources: Information provided by the authorities; and IMF staff calculations.

Revenues

16. The revenues of the general government were 34.6 percent of GDP in 1998, a drop of 1.7 percent of GDP relative to 1997. Tax revenues were 29 percent of GDP. The financial crisis in Russia had an adverse impact on economic activity and foreign trade and the revenue loss in VAT, excises, and customs was estimated to be in the neighborhood of 2 percent of GDP in 1998. Despite these losses, the share of VAT revenues in GDP rose from 9.4 percent in 1997 to 11.1 percent in 1998 (Appendix Table 37). The increase in VAT collection was due to the elimination of many exemptions.[4] Despite the increase in excise taxes, their share in GDP fell from 5.0 percent in 1997 to 3.7 percent in 1998, due in part to falling exports to Russia and weak customs administration. Profit and personal income tax yields also fell —from 5.2 percent of GDP in 1997 to 4.0 percent of GDP in 1998—and nontax revenues were lower as a share of GDP in 1998 relative to 1997, largely reflecting the fall in privatization receipts in 1998. In the last quarter of 1998, the improvement in tax revenues, despite the larger-than-expected slowdown in

[4] See Appendix Table 43 for a summary of the tax structure in Moldova and recent changes since 1997.

economic activity, was due primarily to netting operations totaling Mdl 541 million, against Mdl 690 million for the whole year, or approximately 6.8 percent of GDP.[5]

17. Revenues remained weak in the first half of 1999, particularly VAT, excises and foreign trade tax revenues. This was primarily due to noncompliance, and the slowdown in economic activity and foreign trade caused by the Russian crisis. Poor revenue collection may also be attributed to political uncertainty after the resignation of the government in February 1999. Contraband in petroleum, tobacco, and alcohol products has seriously undermined collection, particularly VAT and excises. Tax administration was improved in the first half of 1999 with the establishment of 30 mobile and 17 fixed fiscal posts along the Transnistrian administrative border. Approximately Mdl 3.5 million was collected in the first month of operation of the fiscal posts.

Expenditures

18. On a cash basis, expenditures fell from 42.8 percent of GDP in 1997 to 37.3 percent of GDP in 1998. On a commitments basis, however, expenditures were 42.4 percent of GDP, an increase from 39.9 percent of GDP in 1997. The accumulation of domestic expenditure arrears accounted for 82 percent of the total change in arrears.[6] The main component of expenditures—social spending—fell from 16.4 percent of GDP in 1997 to 13.2 percent of GDP in 1998 (Appendix Table 38). This reflects, to a large extent, measures to rationalize health and education spending, and the accumulation of domestic expenditure arrears, particularly wages and salaries.

19. Given the revenue losses in the second semester of 1998, expenditure cuts of over 2 percent of GDP were implemented in the fourth quarter. These cuts were concentrated in the capital budget, the road fund, the fund for support of agriculture, and compensations for price increases. Debt service increased as a share of GDP from 3.7 percent in 1997 to 4.2 percent in 1998, primarily because of an increase in domestic interest payments in the second half of the year.

20. In the first half of 1999, expenditures were compressed on a cash basis, including social spending. Progress has been made in improving the efficiency of health and education spending.[7]

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[5] These figures exclude netting operations carried out by local government. See Section IV, for further details and an in–depth discussion.

[6] The remainder refers to foreign interest arrears.

[7] This includes a reduction in publicly financed higher education stipends, increases in student-teacher ratios, streamlining pre-school education, closing of underutilized local hospitals, and improving cost recovery in the provision of health services through the introduction of user charges. See Appendix Table 44 for a summary of the main policy measures to rationalize expenditures in 1998-99.

The 1999 budget introduced a salary freeze and a partial hiring freeze to contain wage costs.[8] It also reduced subsidies to the agricultural sector, introduced cuts in defense spending, and reduced compensations for heating and energy and other privileges. Total employment in the public sector was reduced from 332,000 to 309,300 in 1998.

Social Fund Operations

21. Social Fund revenues, including transfers from the State budget, fell from 10.2 percent of GDP in 1997 to 9.1 percent of GDP in 1998 (Table 4). Excluding transfers from the State budget, Social Fund contributions increased as a share of GDP between 1997 and 1998. In-kind collections also contributed to improving revenue performance in the second semester of 1998, totaling nearly 3 percent of GDP in 1998. As in 1997, Social Fund expenditures constituted the second largest expenditure category in the general government budget in 1998. These expenditures nevertheless fell by 1.4 percent of GDP to 9.0 percent of GDP in 1998 on a cash basis. On a commitments basis, however, Social Fund expenditures reached 9.7 percent of GDP.

Table 4. Social Fund Operations, 1995-1998
(In Percent of GDP)

	1995	1996	1997	1998
Revenues	8.5	8.6	10.2	9.1
Of which: Contributions 1/	7.9	5.9	7.2	7.7
Of which: State budget transfers	0.6	2.8	3.0	1.4
Total Expenditures (cash)	8.6	8.7	10.4	9.0
Of which: Pensions	6.8	6.7	...	7.8
Total expenditures (commitments)	8.9	11.5	8.4	9.7
Balance (cash)	-0.1	-0.1	-0.2	0.1
Memorandum item:				
In-kind contributions	...	...	...	2.9

Sources: Information provided by the authorities; and IMF staff calculations.

1/ Includes fines and penalties.

22. Social Fund collections were below the program target in the first half of 1999. Expenditures were compressed on a cash basis due to this shortfall in revenues. On a commitments basis, however, expenditures exceeded the program target, due to the accumulation of Mdl 87 million in arrears. Transfers from the State budget were also below the budgeted amount.

[8] Accordingly, no more than one civil servant can be hired for each two leaving the civil service.

Financing

23. **Non-inflationary sources of finance have been limited** since the third quarter of 1998. Central bank credit and the buildup of external and domestic expenditure arrears were the predominant financing instruments in 1998. A sharp contraction in domestic credit resulted in negative financing from banks and nonbanks. Limited access to foreign credit and sizeable amortization payments resulted in negative foreign financing. The accumulation of foreign arrears reached 2.7 percent of GDP in 1998. In the first half of 1999, there was negative direct credit from commercial banks and the deficit was financed domestically through central bank credit and the sale of securities to commercial banks. Sizeable amortizations limited net foreign financing. The treasury bill market had been under pressure since the third quarter of 1998, but stabilized in the second quarter of 1999, albeit at a lower level of activity and a steeper yield curve.

Institutional Reform

24. In 1998, the **Law on Administrative and Territorial Organization** of the Republic of Moldova was passed and reduced the number of regional governments from the existing 38 rayons to 11 units. This consolidation is expected to reduce public sector employment by approximately 14,000 and payroll costs over the medium-term. To improve budget execution and expenditure management and control, a **treasury system** was established in January 1998 and subsequently extended to the 11 regional governments.[9] A **Large Taxpayers Unit (LTU)** was created within the State Tax Inspectorate in 1998 to improve tax administration, fight widespread tax evasion, and boost collection. However, little progress was made in 1998 to improve customs administration.

25. With regard to the Social Fund, in 1998, all collection responsibilities, both, in cash and in kind, were transferred to the State Tax Inspectorate. **A Law on Public Pensions was** also passed in 1998, and implemented in January 1999, and aims at improving the financial sustainability of the current pay-as-you-go system by increasing the retirement age, eliminating privileges, and increasing individual contributions in line with benefit entitlements.

C. Money and Banking

26. Developments in the money and banking sector can be separated into two very distinct periods. Through mid-1998, the pursuit of a restrained monetary policy, along with institution building and monetary and banking reforms, had produced a sustained reduction in the inflation rate to near zero, a broadly stable, market-determined exchange rate, and strong demand for domestic financial assets. The strength of public confidence in the leu was evidenced by a steadily declining velocity of money and a relatively low level of dollarization. Interbank money markets were developing and indirect monetary control instruments had been introduced.

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[9] By end-2000, the treasury system will have been extended to local governments and the Social Fund.

27. However, strains were building as a result of the continued high budget deficit and associated financing needs, and a build-up of external debt and arrears. Further, favorable world capital market sentiment toward emerging market debt had begun to shift. **Thus, Moldova found itself in a vulnerable position when, in mid-summer 1998, the Russian crisis hit.** The announcement of a default by the Russian government on its treasury securities shook the Moldovan money market and the freezing of export proceeds from Russia placed the financial system in a crisis. Notwithstanding vigorous NBM attempts to stabilize the situation, money and banking conditions dramatically reversed. The demand for money fell, there was a virtual collapse in the demand for domestic financial assets, and a rapid dollarization.

Pre-Russian crisis developments

28. **The first three quarters of 1998 saw continued progress in monetization, financial deepening and reducing inflation.** However, pressures were building, especially those relating to perceptions that large fiscal and external imbalances were not consistent with a stable nominal exchange rate. Reserve money (RM) declined through most of 1998, as the seasonal drop in the first quarter persisted with the NBM selling its foreign reserves into a declining market; by end-September, the RM stock had fallen 24 percent. **Official reserves**, which stood at US$366 million at end-1997, declined steadily to US$210 million at end-September 1998—52 percent of beginning RM stock. In April, NBM **credit to the economy**, largely in support of agricultural activity, rose sharply but was maintained broadly constant thereafter through end-July (Appendix Tables 39 and 40).

29. While base money was declining, the **money multiplier** (M3) rose steadily from 1.67 at end-June 1997 to 1.96 at end-September 1998, as excess bank reserves dropped from over 10 percent of deposits in mid-1997 to around 2 percent for most of 1998. This drop in excess liquidity reflected the development of the interbank money and secondary treasury bill markets following the removal of the transactions tax on treasury securities as well as the inclusion in the required reserves calculation of up to 2 percent of deposits in the form of cash-in-till, introduced in early-1998. The **currency deposit ratio** continued to decline steadily through mid-1998 to 115 percent of leu-denominated deposits, or 81 percent of total deposits. The slow but steady decline in **currency use** continued through mid-1998, but remained high at 45 percent of M3 (broad money, including foreign currency deposits). **Foreign currency deposits**, which had long remained broadly stable through mid-1997 (at about 10 percent of M3) jumped in the third quarter of 1997 and again in the second quarter of 1998 to US$55 million from US$ 30-35 million in mid-1997 (Table 5).

Table 5. Monetary Indicators, 1995-99

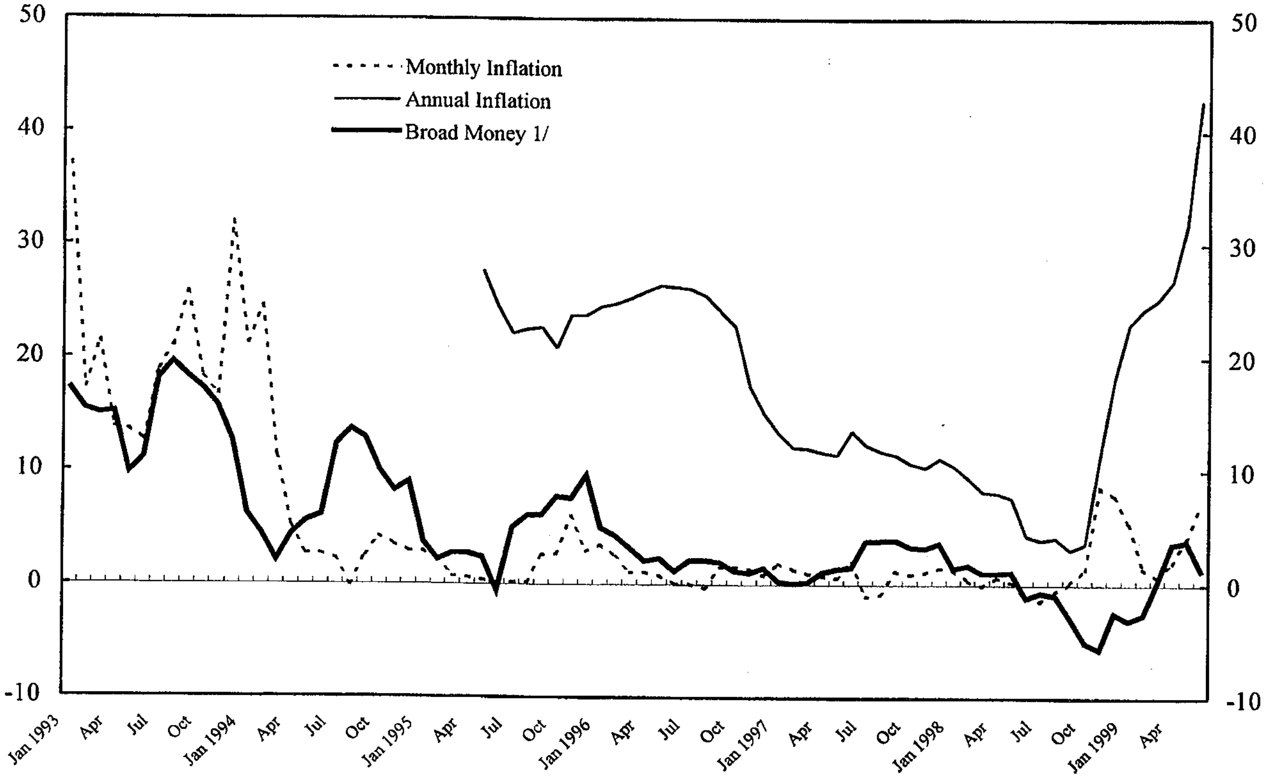
	1995	1996	1997	1998	1999 June
(end-period; in percent of Broad Money (M3); unless otherwise indicated)					
Broad Money (M2)	89.0	90.1	90.4	77.3	66.4
Currency	51.4	51.0	50.6	48.7	41.4
Lei deposits	37.7	39.1	39.9	28.6	25.0
Foreign currency deposits (US$ millions)	30.4	30.4	39.3	47.8	64.5
Reserves /deposit ratio	23.0	19.3	14.8	22.8	26.3
M3 multiplier	1.59	1.68	1.71	1.66	1.76
M2 multiplier	1.42	1.51	1.55	1.28	1.71
Income velocity --of M3	6.55	6.13	5.48	5.06	6.94
--of M2	7.36	6.80	6.05	7.32	10.46

30. Broad money (M3) growth in 1998 was subdued, especially through the third quarter, declining 9 percent over the year. M2 (excluding FCD), which was down 7 percent through end-June 1998, dropped 15 percent in the third quarter, reflecting sharp drops in both leu deposits and currency in circulation, and declined 22 percent for the year as a whole. **Inflation** in the first nine months of the year was virtually nonexistent; the small price increase of 3 ½ percent in the first half was offset by equivalent price declines in the third quarter reflecting a stronger-than-usual seasonal decline in produce prices. Demand for money remained strong through mid-1998, with a decline in the velocity of circulation of M2 continuing on a steady downward trend of 5-10 percent on an annual basis (Figure 5).

Post-Russia Crisis Developments

31. With the onset of **the default on treasury securities by the Russian government in mid-August, the situation in Moldova deteriorated dramatically.** The treasury bill market, which had been eroding for most of the year, shrunk abruptly with both domestic and foreign holders of treasury bills fleeing the market. In the circumstances, the NBM responded to avoid a default by the Ministry of Finance on maturing treasury bills and credit to government rose rapidly. Because of this, as well as to support timely external debt service payments, NBM credit to the government rose 150 percent from end-July through end-December (80 percent of RM at end-July). In the fourth quarter, external reserves fell to US$140 million (just 1.4 months of import coverage). Heavy official debt service obligations, especially in December also contributed to the reserve loss as the NBM defended the exchange rate from mid-August until end-October.

Figure 5. Moldova: Money and Inflation, 1993-1999
(In percent)



Sources: Moldova Department of Statistics, National Bank of Moldova; and Fund staff estimates.

1/ Excluding Foreign Currency Deposits; six month backward moving average of monthly growth.

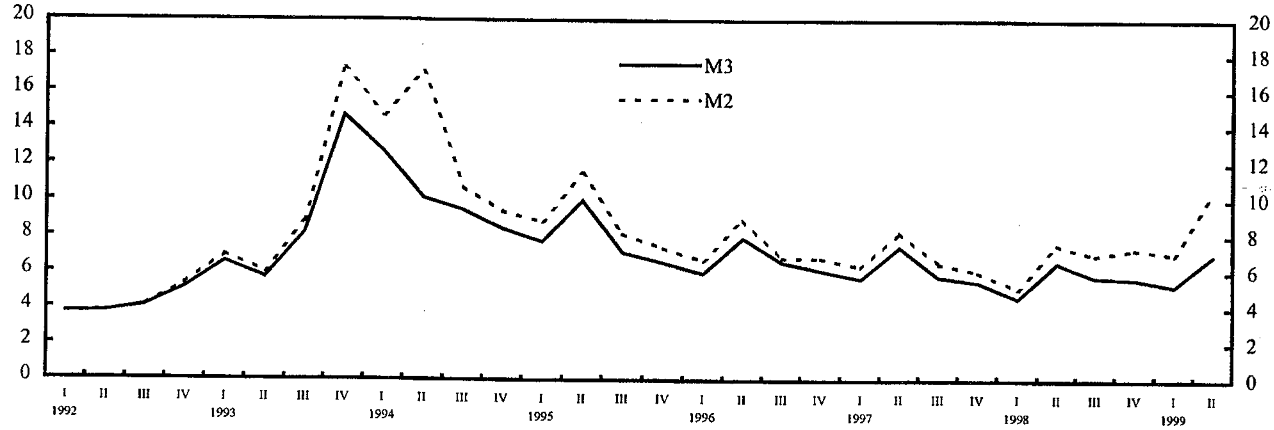
32. Reflecting the jump in credit to government, RM growth in the final quarter reached 25 percent but still represented a decline on the year of 6 percent. At the same time **the NBM took strong measures to tighten liquidity.** The NBM floated the exchange rate in early-November, and raised reserve requirements from 8 to 15 percent, with 13 percent to be held in a special account at the NBM (previously held in correspondents accounts). This effectively increased reserve requirements by 12-13 percent. **Foreign currency deposits fell sharply** in the fourth quarter of 1998 to US$48 million as confidence in the banking system was shaken. With the freezing of all export remittances from Russia and heavy withdrawals of deposits, the payments system was subjected to a severe liquidity squeeze in November/December. **However, with supporting lombard and repo operations from the NBM, a generalized collapse was avoided and the payments crisis gradually eased in the first quarter of 1999.** Leu deposits decreased by over 20 percent in the final quarter of 1998, but stabilized in the first quarter of 1999 and at end-June were up 10 percent over end-1998. Nevertheless, they have declined, in real terms, by 37 percent since September-1998.

33. In the first half of 1999, the **monetary conditions stabilized somewhat**, although the demand for leu remained weak. RM growth eased to18 percent, most of which occurred in the second quarter, and reflected a rebuilding of foreign assets coupled with a sharp easing of credit to government and the sharp depreciation in the leu and fall in the demand for money. **Inflation** spiked in the fourth quarter of 1998, and averaged over 8 percent per month in November/December, and quickly subsided and with the tighter liquidity; by April the monthly rate was reduced to 0.6 percent. However, this trend was reversed in May/June with the continued weakness in demand for leu and a renewed sharp depreciation of the exchange rate. The fall in **M2 velocity** began to reverse in the third quarter of 1998 and rose at a year-over-year rate of almost 40 percent in the first half of 1999. There has also been **a marked increase in dollarization of the economy**. FCD rose again in the first half of 1999—by about one-third—although a sizable portion of this may be temporary in nature reflecting an operation for a large foreign investor. Evidence suggests that there are significant foreign exchange cash holdings by the public that have increased significantly since mid-1998, although little information is available to quantify this development (Figure 6).

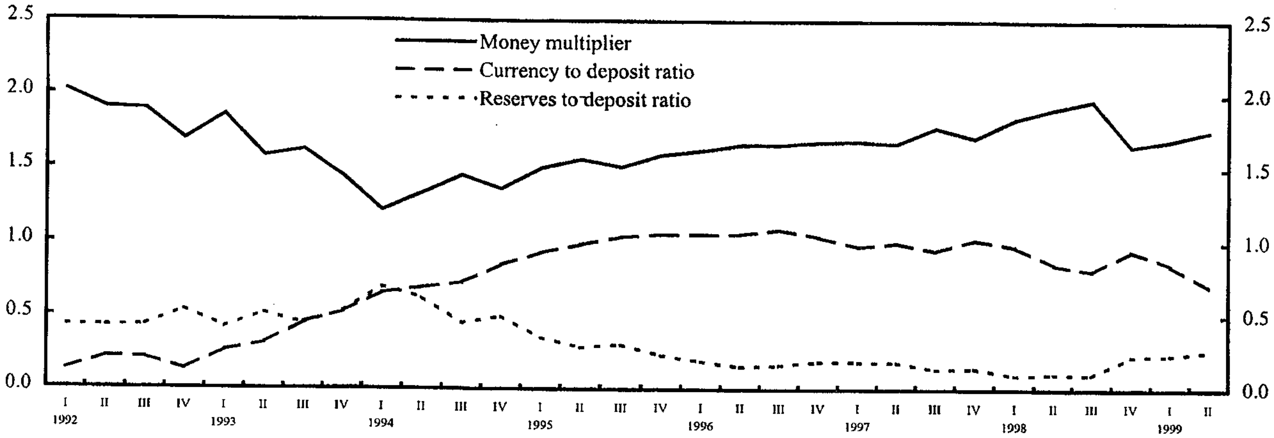
34. There has been **some setback to progress achieved in the structural area, most notably the implementation of market-based indirect liquidity management tools**. The virtual collapse of the treasury bill and interbank money markets, coupled with the requirement that reserves be in a separate blocked account at the NBM, meant that use of the open-market operations and lombard and repo facilities all but ceased in 1999.

Figure 6. Moldova: Velocity, the Multiplier, and Monetization, 1992-1999

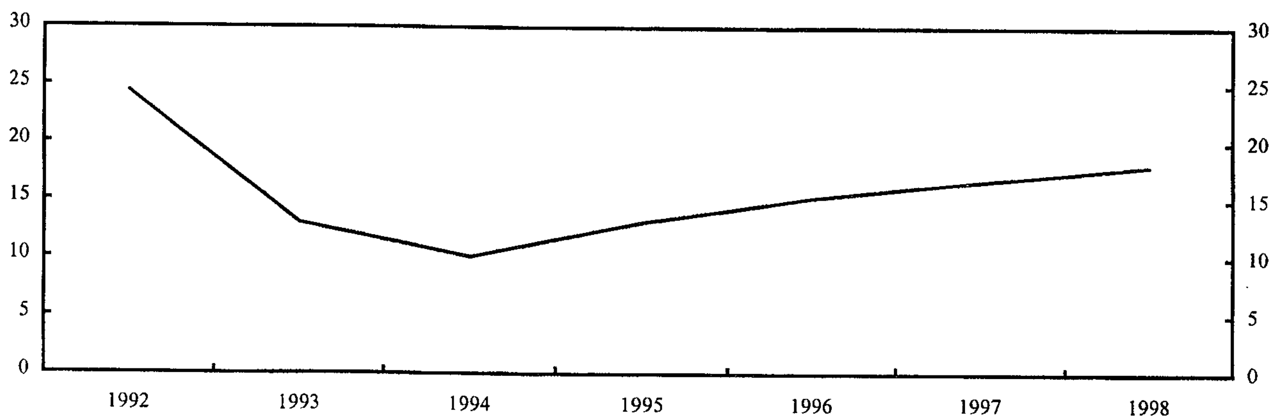
Velocity of Broad Money
(Quarterly GDP/end of period money)



Money Multiplier (M3) 1/



Monetization (M3) 1/
(Broad money in percent of GDP, annual average)



Source: Moldovan authorities; and Fund staff estimates.

1/ Including Foreign Currency Deposits

Box 1. NBM Monetary and Banking Reforms in 1998-99

In mid-1998, several measures were undertaken by the NBM or the government and parliament at its behest to improve the efficiency of the banking and payment system. These included

- the abolition of the restriction on only one bank account (mid-1998);
- the limits on holdings of cash by businesses (mid-1998);
- the abolition of the transactions tax on treasury securities of 0.3 percent (early 1998);
- the securitization of all credit to government (December 1998);
- the modification of the primary treasury bill auction pricing mechanism to a differential price system (October 1998);
- an increase in the rate of remuneration of required reserves to equal the rediscount rate (July 1998, subsequently reversed in late-1998);
- the replacement of the credit auction mechanism with open market operations (mid-1998);
- the conversion to international accounting standards from January 1998; and
- further, the NBM itself underwent its first external audit, completed in May 1999, of the 1998 accounts. From January 1999, the NBM accounts have been converted to a full accrual basis.

Interest Rates

35. **Interest rates** have risen with the crisis of confidence in leu-denominated financial instruments to levels that would be consistent with a well functioning money market. In mid-1998, the authorities allowed rates to rise on treasury securities, reflecting the government's heavy financing need as well as some weakening of demand. Market participants in the treasury bill market interpreted the rise in yields as a sign of potential default—an expectation which was strongly reinforced by the Russian default. As a result, rates on treasury securities did not rise to market clearing rates, but net demand, as explained above, was met through credit from the NBM. In the fourth quarter of 1998, **the treasury bill market** shrank by two-thirds to an end-December stock (at purchase price) of Mdl 155 million. The maturity structure shifted dramatically away from the longer maturates with the virtual disappearance of maturities beyond the 91-day bill. The yield curve, which was very shallow during the first half of 1998, steepened considerably with yields on the 91-day bill rising from around 30 percent in June 1998 to 46 percent at end-October and to about 50 percent in April 1999. Short-term (7-day) liquidity management bills yields rose to over 40 percent in early-1999 before easing to 16 percent at end-June.

36. Average **commercial bank lending rates** rose in September 1998 to 60 percent and then to over 70 percent in December before easing sharply in early-1999 to 35 percent. This reflected the reduction in inflation as well as weak credit demand. Interestingly, the yield curve on credit has remained inverted for much of 1998-99, with new credits in June ranging from 44 percent on credits of one-month to 37 percent on credits over a year. The term structure of credits has also shifted, surprisingly, and the share of credits over one year has increased. During 1997-98 credits over a year represented around 10 percent of credit extended but in early-1999. This share has risen to more than 25 percent, which may reflect a roll-over of existing short-term credits in a

difficult business environment as well as the on-lending operations of World Bank credits (Figure 7).

37. **Average deposit rates** on term deposits rose from 21 percent in mid-1998 to around 30 percent in early-1999 before easing through May to 27 percent. Rates rose to 31 percent in June. **However, these increases have little significance as leu-denominated term deposits have all but disappeared**. The trend evident in mid-1997 toward an increased share of 1 year term deposits, which peaked at about one-quarter of leu deposits, was reversed in late-1997 and accelerated in early-1998, so that by mid-1998 over 80 percent of leu deposits were sight deposits, with a nominal interest rate of 2 percent, on average. Deposits in foreign exchange have also shifted, only slightly less dramatically, to sight deposits. At end-June 1999, sight deposits represented 96 percent of foreign currency deposits, 75 percent of which are non-interest bearing enterprise deposits (Figure 8).

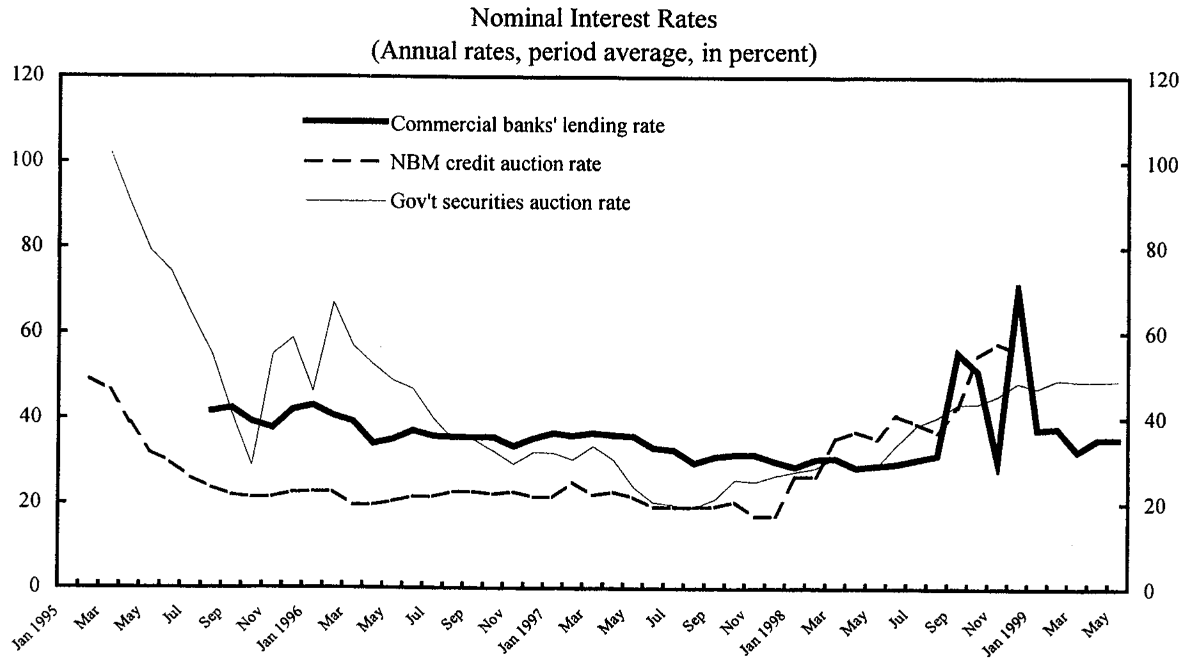
Banking system developments

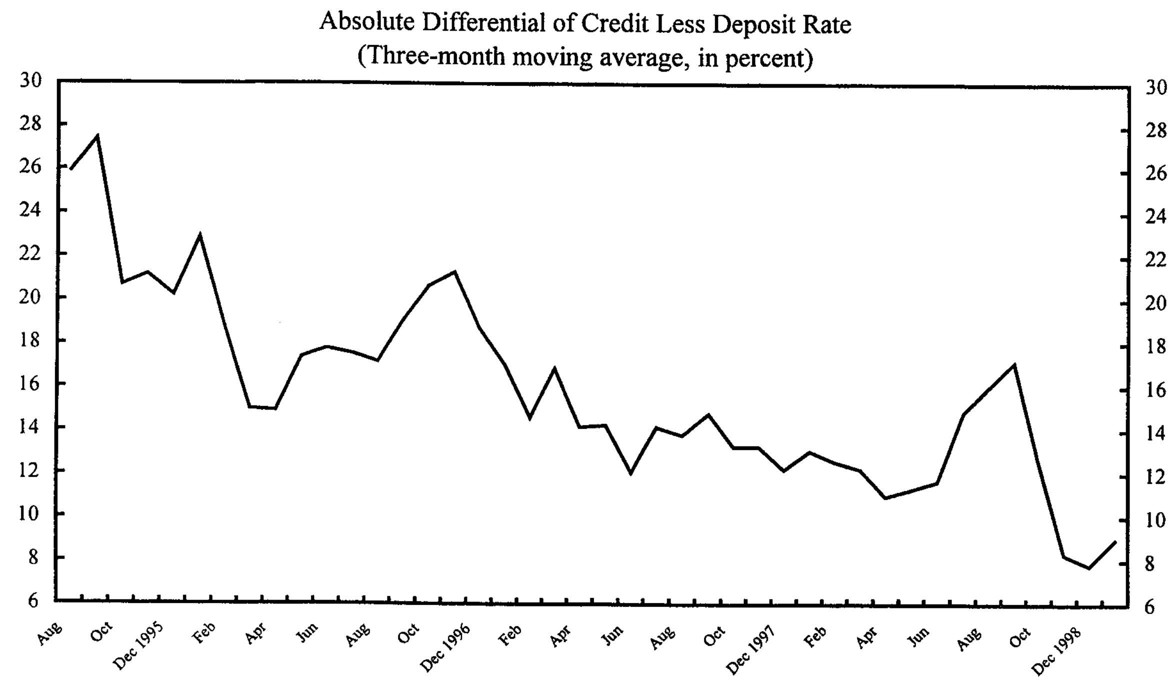
38. The Moldovan banking system survived the financial crisis at the end of 1998 in a much weakened state. While there were no major bank collapses, the banking environment was considerably worse and the sector remains fragile. The steady monetization and financial deepening of the economy stopped in late-1998 and the reversal in the demand for leu has had serious implications for banks. As discussed above, and evident from Figure 7, the system now has a seriously mismatched maturity structure, with the overwhelming proportion of deposits being sight deposits. Two new foreign banks began operations in 1998 and 3 small banks were closed in 1998/99, so that the total system now consists of 21 banks. However, the **sector remains highly concentrated**, with the top five banks accounting for over 63 percent of assets and 65 percent of deposits at end-May 1999, broadly unchanged from end-June 1998.

39. **Total regulatory capital to risk-weighted assets** has risen from 34 percent to 38 percent at end-May 1999. This high ratio reflects weak credit demand in the current business conditions, and may also be overstated owing to imperfect asset ratings. **Impaired credit performance** has improved somewhat since June 1998 when substandard, doubtful and loss categories represented 28 percent of total credit; at end-1998, the ratio had fallen to 21 percent where it has remained through end-March 1999. However, **total credit has declined** 10 percent from June 1998 (a drop of 33 percent in real terms) through March 1999 and represented 61 percent of total assets, down sharply from 74 percent in June 1998, reflecting the need to raise cash and reserves by almost an equivalent amount.

40. The NBM has **continued to strengthen banking supervision** in a difficult environment. Three small chronically-troubled banks have been closed since mid-1998, for a total of seven so far since independence. The troubled and decapitalized **Savings Bank** was taken over by the government in late-1998 and a new board and management team was put in place in early 1999. The bank has the most extensive branch network and by far the largest household deposit base of any bank in Moldova. The new management is actively implementing a rehabilitation plan featuring recovery of non-performing assets, improved asset and liquidity management systems,

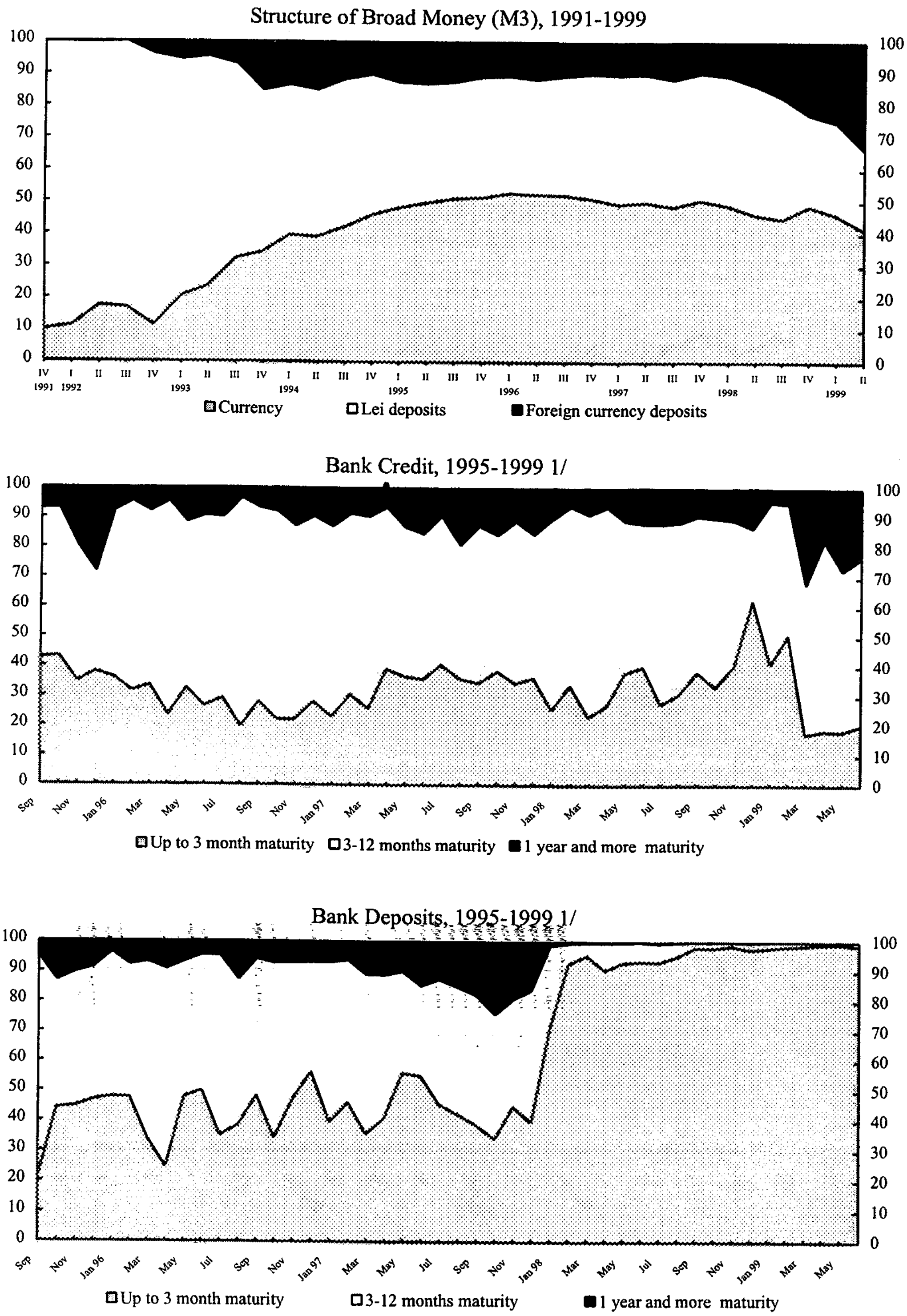
Figure 7. Moldova: Interest Rates, 1995-1999





Sources: National Bank of Moldova; and Fund staff estimates.

Figure 8. Moldova: Structure of Broad Money, New Loans, and Deposits
(In percent of total)



Source: Moldovan authorities; National Bank of Moldova; and Fund staff estimates.

1/ Domestic currency only.

and cost rationalization. The NBM's supervisory efforts are handicapped by slow liquidation procedures which have absorbed qualified staff. Minimum **capital adequacy standards** were doubled in early-1998 and doubled again, in 2 steps, in 1999. However, inflation has eroded these increases, so that in mid-July 1999 the NBM announced a further increase would come into effect on January 1, 2001 to the leu equivalent of Euro 2.5/5.0/7.5 million for the three license grades, respectively. The minimum capital-asset ratio was raised to 10 percent effective January 1, 1999.

D. External Sector

41. Moldova's already **weak external position** deteriorated dramatically in the wake of the mid-August 1998 Russian crisis. The external current account widened from 12.3 percent of GDP in 1997 to 17.7 percent of GDP, the level of gross official reserves was reduced by 60 percent to cover less than a month and a half of imports of goods and services, and the external debt (including energy arrears) increased by 13.5 percentage points of GDP to 71.5 percent of GDP. In November 1998, in the face of plummeting foreign exchange reserves, and after a period of large intervention, the authorities let the leu float freely. By the end of the year, the leu had depreciated by 44 percent against the dollar in nominal terms. In early 1999, however, owing mainly to a sharp compression of imports, the external situation begun to stabilize, though the accumulation of external arrears on debt, guarantees, and energy supplies continued. In particular, the trade deficit was sharply reduced during the first half of 1999, allowing for a small increase of foreign exchange reserves. However, the external situation remained highly unsettled and the leu continued to depreciate, by about 30 percent, in the first half of 1999.

Balance of payments

42. The main adverse **effects of the Russian crisis on Moldova were felt through the trade channel**, with the trade deficit widening from 15.8 percent of GDP in 1997 to 21.2 percent in 1998 (Appendix Table 41). Exports to BRO countries (the Baltics, Russia, and other former Soviet Union countries), which traditionally have constituted more than two-thirds of Moldova's exports, dropped by about 60 percent between October 1998-March 1999 when compared to the same period in the previous year. In nominal terms, exports to BRO countries, mainly food, beverages (largely wine), tobacco, and animal products, that used to average US$50 million per month, decreased to less than US$20 million. The impact was particularly severe as Moldova has remained heavily dependent on its traditional export markets and has not diversified and re-oriented its exports toward the rest of the world, which, as a proportion of total exports, remained at best stable during the period 1995-98 (Table 6). Owing mainly to the lack of an export basis, export distribution networks, and appropriate norms and standards, exports to the rest of the world, which could have benefited from the large nominal depreciation of the leu and the associated gains in price competitiveness vis-à-vis the dollar and the euro, declined by 24 percent in 1998. Outside agricultural and food products, exports were mainly limited to electrical appliances, textiles and leather products, and precision tools (Appendix Table 42).

43. On the **import** side, the Russian crisis resulted in a major and disorderly contraction of imports and total imports decreased by 48 percent in the six-month period following the crisis. In

Table 6. Moldova: Quarterly balance of payments 1996-1998
(In millions of U.S. dollars; unless otherwise indicated)

	1996 Q1	1996 Q2	1996 Q3	1996 Q4	1996	1997 Q1	1997 Q2	1997 Q3	1997 Q4	1997	1998 Q1	1998 Q2	1998 Q3	1998 Q4	1998
Current account	-58	-27	-57	-46	-188	-92	-57	-60	-59	-268	-104	-78	-97	-54	-334
Trade Balance	-64	-49	-79	-60	-252	-108	-72	-96	-69	-345	-119	-97	-116	-66	-398
Exports	181	213	193	236	823	190	205	211	284	890	179	185	143	137	644
Imports	-245	-262	-272	-296	-1075	-298	-277	-307	-352	-1235	-298	-282	-259	-204	-1043
Energy	-107	-65	-65	-90	-328	-104	-66	-77	-91	-337	-78	-52	-55	-60	-245
Non energy	-137	-197	-207	-206	-747	-195	-211	-230	-262	-897	-220	-230	-204	-144	-798
Services (net)	-25	-10	-9	-20	-64	-18	-12	-7	-25	-62	-19	-16	-18	-21	-73
Income (net)	16	14	15	10	55	19	12	19	13	62	14	9	13	4	41
Current transfers (net)	15	18	16	24	73	15	16	24	22	76	19	26	23	30	98
Capital and financial account	38	13	64	54	170	40	220	48	16	324	45	5	-8	-44	-2
Direct investment (net)	2	4	9	9	23	14	16	21	20	71	13	32	16	25	86
Portfolio investment (net)	1	6	12	36	54	13	223	7	-6	237	0	-12	-6	-37	-55
Loans (net)	13	3	37	47	101	-7	4	15	10	23	24	-1	13	-8	28
Other capital flows (net)	23	0	6	-38	-9	20	-23	5	-8	-7	8	-14	-32	-25	-63
Errors and omissions	-20	5	19	14	17	-15	9	11	6	11	-25	27	34	-16	20
Overall balance	-40	-9	26	21	-1	-67	172	-1	-37	67	-86	-45	-71	-114	-315
Financing	40	9	-26	-21	1	67	-172	1	37	-67	86	45	71	114	315
Net official reserves	4	11	-14	-32	-31	22	-51	-10	-12	-52	27	23	59	53	162
Use of Fund credit	0	14	14	-2	25	-3	-3	15	-8	1	-14	-14	-17	-20	-64
Gross official reserves	4	-2	-28	-30	-57	26	-48	-25	-5	-52	41	37	76	73	227
Exceptional financing	36	-3	-12	11	33	44	-120	12	49	-15	59	22	12	60	153
Arrears on public debt and guarantees	-9	-9	-9	-9	-35	9	-9	8	25	33	10	17	8	16	50
Arrears on energy and other supplies	45	6	-3	20	68	35	-111	4	25	-48	49	4	5	44	103
Memorandum items															
Gross official reserves	254	256	284	314	314	289	337	362	366	366	325	288	212	140	140
in months of imports of goods and services	...	...	...	...	3.0	...	...	...	...	3.1	...	...	...	...	1.4
						(in percent of GDP)									
Current account	...	...	...	...	-9.8	...	...	...	...	-12.3	...	...	...	...	-17.7
Trade balance	...	...	...	...	-13.2	...	...	...	...	-15.8	...	...	...	...	-21.2
Exports of goods	...	...	...	...	42.9	...	...	...	...	40.7	...	...	...	...	34.2
Imports of goods	...	...	...	...	-56.1	...	...	...	...	-56.4	...	...	...	...	-55.3

Source: National Bank of Moldova; and Fund staff estimates particular, non-energy imports, including of essential investment and intermediary inputs for the agro-industries, contracted by 54 percent. Energy imports, which constitutes about a third of total imports, were slightly less affected, despite a further accumulation of payment arrears took place, mainly vis-à-vis Russia, Ukraine, and Romania. Total external arrears on energy and other supplies, which amounted to US$221 million at end-1997, increased by 50 percent in 1998 to reach US$333 million. Despite the crisis, the share of barter in total trade remained relatively stable in 1998 at about 11-12 percent of total trade, reflecting mainly payments in kind for energy imports. The prevalence of barter and the inability or reluctance of certain Moldovan enterprises to engage in cash transactions resulted in losses through mispricing and may well have held back the reorientation of trade to the rest of the world.

Table 7. Direction of Trade

(in percent of total)

	Exports					Imports				
	1994	1995	1996	1997	1998	1994	1995	1996	1997	1998
BRO	72	63	68	73	69	72	68	62	52	44
Russia	51	48	54	62	53	47	33	27	29	23
Ukraine	12	8	6	5	8	19	27	27	18	15
Belarus	4	4	4	4	5	3	6	6	4	5
Others	5	4	4	2	3	3	2	2	1	1
Non-BRO	28	37	32	27	31	28	32	38	48	56
Romania	15	14	9	7	10	6	7	7	9	11
Germany	4	6	4	4	4	5	5	6	8	9
Bulgaria	2	3	2	1	0	2	4	6	5	3
Italy	1	2	3	3	4	1	2	3	4	6
United States	0	1	1	2	3	3	1	1	4	3
Others	6	11	13	10	10	11	13	15	18	24

Source: Data provided by the Moldovan Department of Statistics.

44. **Direction of trade statistics** show that Moldova has not significantly re-oriented its exports from its traditional markets since 1994 (Table 7). In 1998, despite the collapse of the Russian market, the BRO countries and Romania still accounted for about 80 percent of Moldova's exports, with Russia alone representing 53 percent. The share of exports outside these traditional markets, mainly to the EU and the US, has remained broadly stable to around 20 percent since 1994, reflecting the difficulty to conquer new markets in the absence of comprehensive structural reforms. While exports are likely to continue to be dominated by agricultural products, especially wine, where Moldova has a strong comparative advantage, there is scope for the volume of these exports to increase with improved marketing and reforms that encourage private domestic and foreign investments in these sectors. By contrast, Moldova's import structure has already been substantially re-oriented toward the West. While more than 70 percent of Moldova's total imports used to originate from the BRO countries in the early 1990s,

the share has gradually declined since 1994. In 1998, for the first time, Moldova imported more from the West than from the BRO countries.

45. Beyond the impact of the Russian crisis, the **continued widening of the current account** from 6.8 percent of GDP in 1995 to 17.7 percent of GDP in 1998 reflected a structural deterioration of the domestic savings-investment balance owing in particular to a lack of hard-budget constraints in the public sector and the increased financing of government spending through arrears accumulation (Figure 9).

46. Moldova was also affected by the Russian crisis through **financial channels**, although the limited access to international financial markets prior to the crisis has somewhat confined the extent of contagion effects. In particular, the direct impact on the banking sector has been muted, as holdings of Russian GKOs by Moldovan banks had been severely limited by prudential regulations. The direct financial impact was also limited by the fact that the NBM had no reserves in Russian commercial banks. However, Moldova suffered from the broader impact of the crisis on foreign investors' risk assessment of the region. Following two years of strong and increasing net capital inflows, the capital account turned slightly negative in 1998. In particular, after the issuance of the Eurobonds and state bonds to Gazprom for a total of US$237 million in 1997, no new portfolio investment was mobilized in 1998, while a strong redemption of treasury bills held by foreigners took place. Other short term capital flows, including trade credits, also turned negative in 1998.

47. This decline in short term financing could not be compensated by the mobilization of higher **medium and long-term financing**. In particular, medium and long-term disbursements from multilaterals and official creditors declined somewhat in 1998 to about US$80 million. Also, while foreign direct investment increased in 1998 to about US$90 million, the level remained below that registered in other transition economies in central and eastern Europe. This reflected Moldova' uneven track record of reform as well as a lack of transparency in the tax system and the conduct of tenders.[10] In particular, international tenders for major enterprises in the energy, tobacco and telecommunication sectors have so far been disappointing or delayed (Table 8).

48. As a result of these trade and financial shocks, the **overall external balance** deteriorated by 20 percent of GDP in 1998. The overall balance changed from a surplus of US$ 67 million in 1997 to a deficit of US$ 311 million in 1998. This led to a sharp loss of foreign exchange reserves (US$226 million) and the further accumulation of large external payment arrears (US$153 million) on account of public debt service payments (US$50 million) and energy payments (US$103 million), mainly to Russia.

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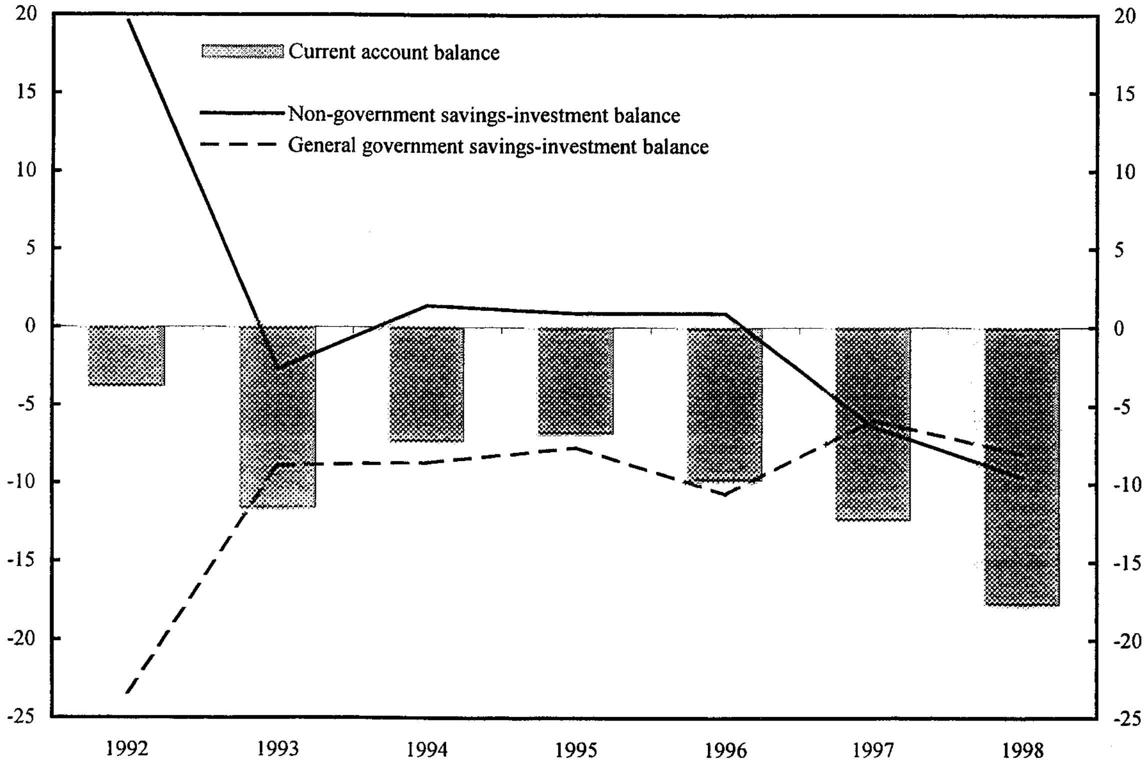
[10] For further details, see Chapter VI on foreign investment in Moldova.

Figure 9. Moldova: Savings-Investment Balance and the Current Account, 1992-1998
(In percent of GDP)



Sources: National Bank of Moldova; and Fund staff estimates.

Table 8. Moldova: Financing of Current Account Deficit and Amortization, 1995-98
(In millions of U.S. dollars)

	1995	1996	1997	1998 Prel.
Total financing needs	-173	-220	-358	-377
Current account	-115	-188	-268	-334
Amortization	-58	-32	-90	-43
Capital flows	194	227	414	-23
Foreign direct investment	73	23	71	88
Portfolio investment (net)	0	54	237	-55
Loans disbursements	132	133	101	83
Other capital flows (net)	-75	-9	5	-75
Use of Fund resources	65	25	1	-64
Other financing sources	-21	-7	-56	400
Debt rescheduling	0	0	0	0
Debt arrears	20	-35	33	50
Energy arrears	47	68	-48	103
Changes in reserves	-78	-57	-52	227
Errors and omissions	-10	17	11	20

Sources: National Bank of Moldova; and Fund staff estimates.

Trade regime

49. Moldova's **trade regime** is quite liberal. By 1996, import quotas had been eliminated and the number of import tariff band had been reduced to five, with a maximum tariff rate of 20 percent with few exceptions. However, in 1997, tariffs were raised on a number of goods, including capital goods, and taxes and restrictions were introduced on exports of grapes, unbottled wines, cereals, sunflowers seeds, and raw tobacco. As a result of these tariff increases, the simple average tariff rate (excluding alcohol, tobacco, and vehicles) rose from an estimated 6.3 percent to 11.6 percent (Table 9). Steps were taken in late 1998 to reverse this increasingly restrictive trade policy. Items in the 50 percent tariff rate category were reduced to 40 percent and the export bans and taxes were eliminated together with the seasonal tariffs on fresh fruits and vegetables and export licensing requirements. More importantly, with the 1999 budget, a maximum tariff rate of 15 percent was introduced without exception while all non-energy imports became subject to a minimum tariff rate of 5 percent, including imports from the CIS countries and Romania. As a result, since the beginning of 1999, the tariff structure features a simple three-tier system of 5, 10, and 15 percent and the simple average tariff rate is estimated to have been reduced to 8.6 percent. Furthermore, the consolidation of tariff rates resulted in a sharp decline of tariff dispersion, which is estimated at 5 percentage points, in 1999.

Table 9. Import Tariff Developments 1/

	1996	1997	1998	1999 2/
Simple average tariff	6.3	11.6	11.8	8.6
Weighted average tariff	2.3	6.8	4.3	...
Distribution of imports by tariff band				
0 percent	78	10	31	0
5 percent	3	38	29	59
10 percent	5	17	9	9
15 percent	2	2	1	32
20 percent	6	29	24	0
above 20 percent	6	3	7	0
Dispersion of tariff rates 3/	16	11	17	5

Sources: Information provided by the Moldovan authorities; and Fund staff estimates.

1/ Based on 4,015 import categories, excluding alcohol, tobacco, and vehicles.
2/ Preliminary estimates based on the measures adopted with the 1999 budget.
3/Tariff rate dispersion is the standard deviation of tariff rates from their mean.

50. Moldova has accelerated its negotiations for **accession to the WTO** with a view to membership by January 1, 2000. Following the last meeting of the Working Party in April 1999, bilateral negotiations on market access for goods and services were almost completed. Further negotiations were still needed concerning agricultural subsidies. In addition, Moldova has already free trade agreements will all CIS countries and Romania. It also signed an agreement on partnership and cooperation with the EU in late-1994.

External debt

51. As a result of the accumulation of large current account imbalances, **Moldova's external debt** has grown at a rapid pace from virtually zero in the early 1990s to slightly above US$1 billion or 54.6 percent of GDP at end-1998 (Table 10 and Figure 10). Including arrears on energy supply, Moldova's total external debt was almost US$1.4 billion at end-1998 (72.6 percent of GDP). Debt service payments rose to 27.6 percent of exports of goods and nonfactor services during the period. Major official creditors are the IMF, the World Bank, Russia, the EU, the United States, Japan, and Romania. Moldova was granted IDA eligibility by the World bank in April 1997 and became ESAF-eligible on March 23, 1999. In July 1997, following a favorable rating from international rating agencies, the authorities issues a five year US$75 million Eurobond. They also issued US$140 million of state bonds, in 1997 to reduce the stock of energy arrears to Gazprom (Table 10).

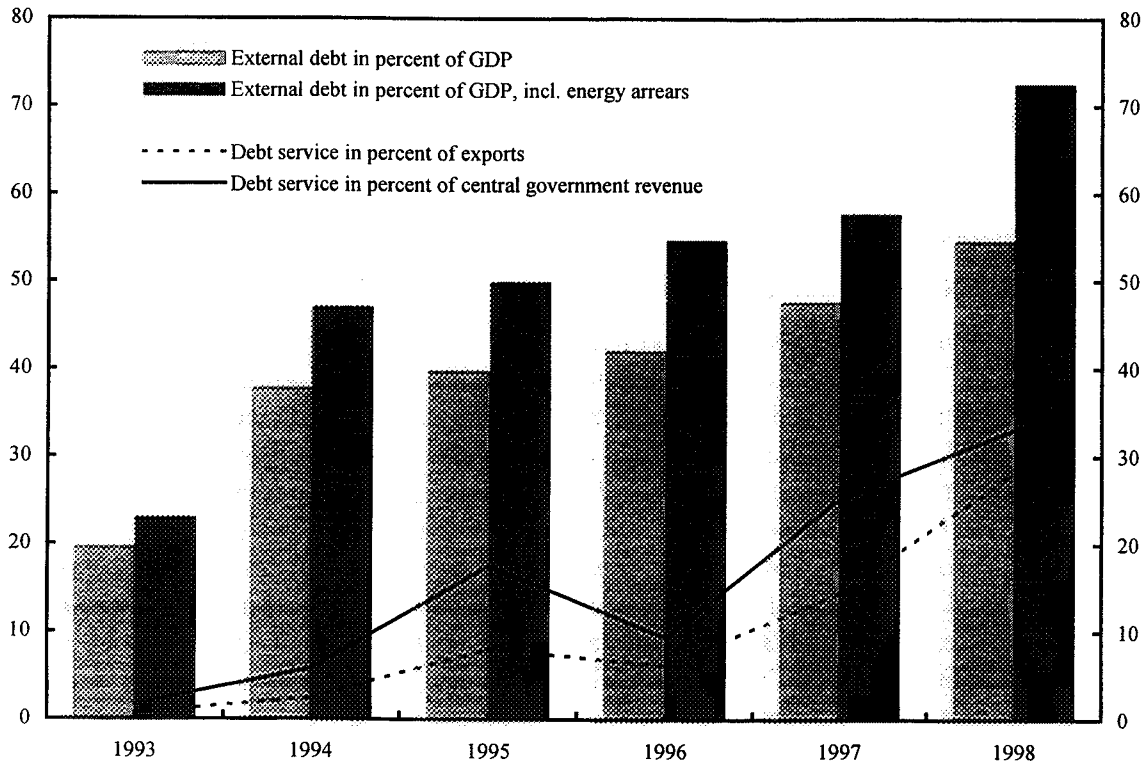
Table 10. Moldova: External Debt Indicators, 1993-1998
(in millions of US dollars)

	1993	1994	1995	1996	1997	1998
Total external debt	256	509	668	815	1048	1014
Multilateral creditors	116	261	380	428	480	458
IMF	88	165	228	243	234	171
World Bank	29	96	146	146	183	212
EBRD	0	0	5	40	62	75
Bilateral Creditors	139	248	261	279	257	257
EU	32	65	59	76	67	71
Japan	0	30	39	39	39	39
Russia	82	93	90	79	64	62
USA	20	40	50	64	65	65
Others	6	19	22	22	22	21
Commercial creditors	0	0	27	108	312	299
Memorandum:						
Energy arrears	...	125	171	245	221	333

Sources: National Bank of Moldova; and staff estimates.

52. Moldova has accumulated **large external arrears** on energy supplies and debt obligations. As of end-1998, total arrears amounted to US$417 million (22.5 percent of GDP). Arrears on energy and other supplies, mainly to Russia, Ukraine, and Romania, reached US$333 million (18 percent of GDP). Arrears on public debt and public guarantees amounted to US$84 million at end-1998 and increased further to US$104 million at end-March 1999, of which US$21 million was interest payment arrears. The authorities were engaged in a number of negotiations to restructure these overdue obligations, mainly to Russia. In May 1999, a heavily discounted

Figure 10. Moldova: External Debt Indicators, 1993-1998 1/



Sources: Moldovan authorities; and Fund staff estimates.

1/ Excludes enterprises sector arrears to energy suppliers.

buyback operation of the US$140 million bonds to Gazprom was completed. In the meantime, a second issuance of state bonds to Gazprom worth US$90 million was contemplated following the agreement on a debt-equity swap in the gas sector, whereby Gazprom acquired a majority interest in Moldovagaz in return for the clearance of US$47 millions of arrears. A protocol rescheduling agreement with the Russian authorities was initialed in April 1999—though not ratified—covering the bulk of the Russian debt, including that to Oneximbank.[11] Also, a rescheduling of the debt owed to Romania was agreed in July 1999. Other rescheduling discussions were launched with commercial creditors.

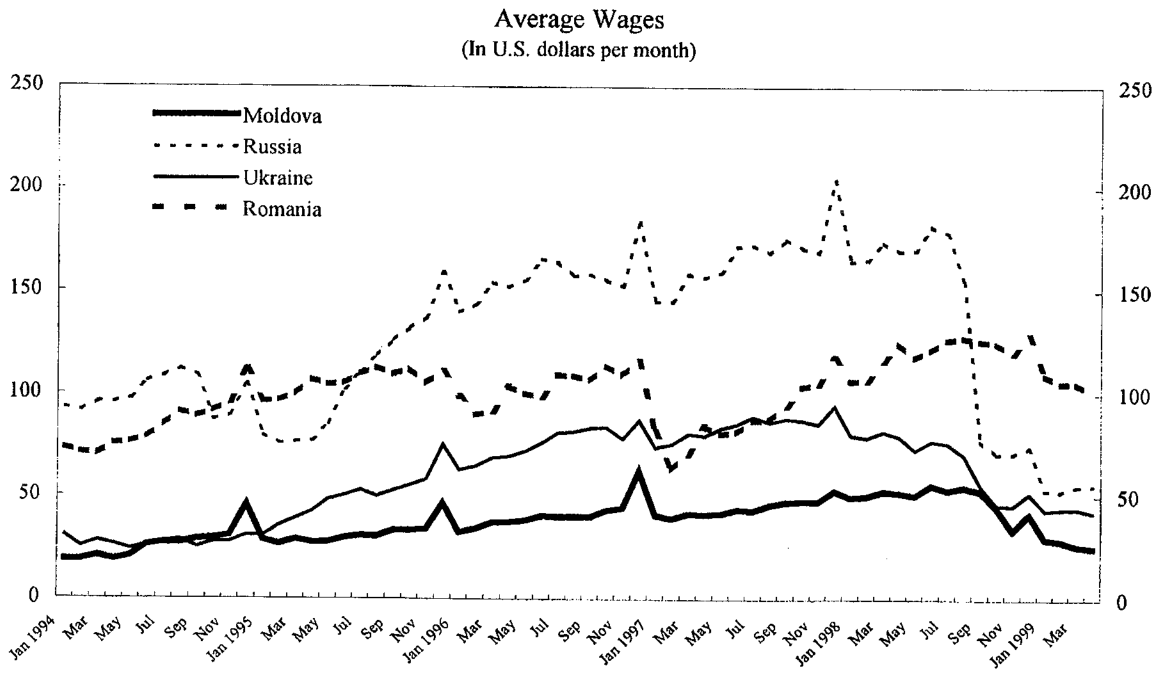
Exchange market and exchange arrangement

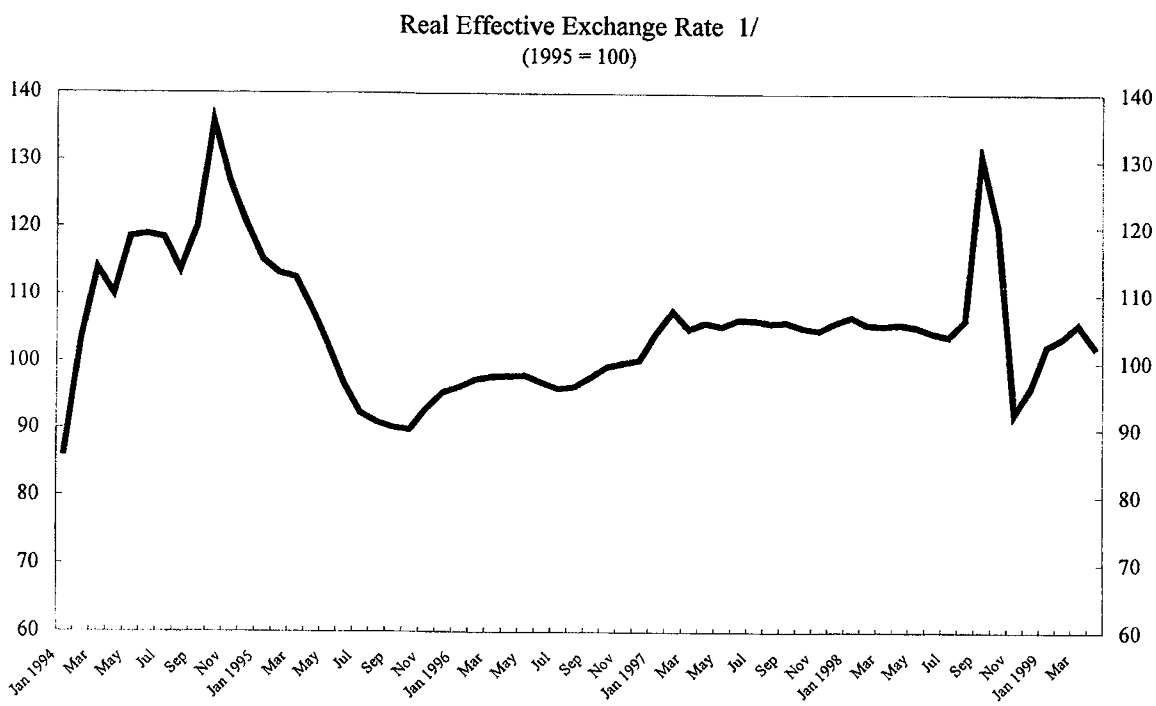
53. The **Moldovan leu** registered a remarkable period of stability from its inception on November 29, 1993 until August 1998. Following an initial modest depreciation, the official Mdl/US$ nominal rate remained within the 3.85-4.86 range between December 1993 and September 1998. During this period, the leu had depreciated in real terms against the currencies of the BRO countries, but appreciated against the currencies of other countries. However, while the exchange rate had already been under some pressure prior to the Russian crisis, the latter precipitated a major change in Moldova's foreign exchange regime. In an attempt to preserve the managed float and the relative stability of the leu, the NBM pursued, from August to October 1998, a policy of exchange rate stabilization (at around Mdl 4.8/dollar), involving daily intervention of more than US$1 million of official reserves. Despite this heavy intervention, the exchange rate continued to depreciate by about 25 percent during August-October 1998 (Figure 11).

54. By end-October, **the demand for foreign currency had increased substantially** as domestic and foreign investors left the treasury bill market, notwithstanding the NBM's tightened monetary policy. On November 2, in an attempt to regain control of monetary policy and stem the outflow of reserves, the NBM announced formally that it was ceasing its intervention in support of the leu. The NBM also announced that the daily fixing of the official rate was abolished. It is worth noting that no restrictions of an administrative nature were taken. After the initial shock, the exchange rate stabilized at around Mdl 8.5 per dollar by the end of the year after having nearly reached Mdl 10 per dollar in November. Following a period of relative stability at the beginning of 1999, the exchange rate depreciated again sharply in May/June to around Mdl 11-12/US$ reflecting mainly the fragility of public finances and political uncertainty in Russia. In real effective terms, the exchange rate rose by 23 percent in September 1998, with large intervention to support the rate, before depreciating by about the same magnitude by the end of the year. By end-May, the real effective exchange rate of the leu had depreciated almost 12 percent below the level

[11] As of end-1998, Moldova's debt vis-à-vis Russia was made of three different loans/obligations extended by Russia since 1993: (i) a restructured loan in the amount of US$ 88.55 million granted in 1996 on account of two previous Russian credits; (ii) the securitization of Gazprom's claims on Moldova for a total of US$ 140 million in 1997; and (iii) a US$15 million loan extended by the Oneximbank in 1996 and guaranteed by the Russian government.

Figure 11. Moldova: Competitiveness Indicators, 1994-1999





Sources: National Bank of Moldova, Moldova Department of Statistics, IMF IFS; and Fund staff estimates.

1/ Increase indicates appreciation.

prevailing before the crisis. By comparison, the Russian ruble depreciated by more than 40 percent during the period, the Ukrainian hryvnia appreciated by 6.6 percent and the Romanian leu depreciated by 21.8 percent. While the leu has appreciated somewhat vis-à-vis the Russian ruble since mid-1998, Moldova's price competitiveness remained quite favorable with monthly average wages of around US$25 in mid-1999.

55. **Moldova accepted the obligations of Article VIII**, Sections 2, 3, and 4 of the Fund's Articles of Agreement on June 30, 1995. Since then, Moldova's exchange system has remained free of any restrictions on current account transactions. As mentioned above, since November 2, 1999, the exchange rate of the leu is determined on the basis of supply and demand in the foreign exchange market (independently floating), with the central bank limiting its intervention to purchase foreign exchange to meeting its reserve target. Institutions eligible to deal in foreign exchange are authorized banks and foreign exchange bureaus, which set their own buying and selling rates in their foreign exchange transactions. There is no exchange tax or exchange subsidy and there is no official cover of forward operations in the forward exchange market. The NBM has concluded bilateral agreements on settlements with the central banks of the BRO countries. Moldova is also a member of the Payments Union within the CIS. Export proceeds are required to be repatriated within 180 days, though there is no surrender requirements. Capital account transactions require licenses and/or registrations from the NBM. The system is fairly liberal with regard to inflows and nonresidents

E. Structural Policies

56. **Structural reforms proceeded in fits and starts in Moldova during 1998-1999**. Reforms slowed in the run–up to parliamentary elections in March 1998, but were reinvigorated by a pro–reform majority coalition in parliament and a new government which took office in May. However, with the onset of the Russian financial crisis in August, the policy focus shifted somewhat to crisis management. Efforts resumed in late–1998, with a particular focus on the measures to address the preparations to break–up and privatize the energy sector, which has long been a serious handicap to financial stability and transformation. Land reform efforts accelerated throughout 1998. Unfortunately, the process was again thrown off track in early 1999 with the resignation of Prime Minister Ciubuc and an extended period of political uncertainty leading up to the formation of a new government in mid–March. **The implementation of structural reforms has again been energized and is now focused on completing the privatization of the energy and telecommunications utilities and the liquidation of the former state and collective farms**.

57. **In mid–July 1999, the long-awaited privatization of the public gas company took place.** The Russian gas supplier, Gazprom, took a majority stake in Moldovagaz, comprising 50 percent plus one share, and assumed responsibility over operations and collections for all future gas deliveries. The Moldovan government remains a minority shareholder, with 36 percent of the company, while the administration of the breakaway Transnistira region holds 14 percent. The intention of the authorities is to sell the stake held by the government as well, if possible to a

western energy services company. This measure represents a major breakthrough because the gas sector has been the source of a considerable build up of external arrears and quasi–fiscal deficits.

58. **Another key component of energy sector reform is the demonopolization, break-up, and privatization of the electricity sector**. The former state monopoly electric utility, Moldenergo, was broken into separate firms specializing in generation, distribution, and transmission activities. An independent energy regulatory agency was set up in mid-1998, with tariff setting authority. The agency has adjusted tariffs several times to closely reflect costs. An international investment bank has been contracted as a privatization advisor for the five distribution companies (in three groups), which will be offered for tender later this year. The EBRD and IFC are supporting the project. Three generation units will be offered for sale in the first quarter of 2000, while the transmission enterprise, Moldtranselectro, will remain in state hands. Yet another component is the privatization of **the state fuel company, Tirex Petrol,** whose individual privatization and debt restructuring plan was recently approved by parliament. The firm should be sold by end-year. The two district heating companies, one covering the city of Chişinău and the other providing services to regional cities, are being broken up and converted to municipal utilities.

59. **Privatization** has also moved forward with the implementation of the 1998–1999 privatization program approved by parliament. **Several larger sized Moldovan firms have been sold for cash and debt assumption to strategic investors,** most notably a cement mill to a leading producer, Lafarge, a leather processing firm, several textile producers, a pharmaceutical plant, a number of wineries and a hotel in Chişinău.[12] While initial efforts to sell a forty percent stake in the state telephone monopoly, **Moldtelecom**, via an EBRD–supported tender failed in 1997–1998, preparatory steps to launch a second tender for a majority stake to a strategic investor have been taken. An international financial audit of the firm is underway and a technical audit will follow. The government recently approved a law to establish an independent regulatory agency, and the EBRD and IFC intend to support the privatization with a convertible loan and technical support.

60. One of the most important, and largely successful, structural reform efforts to date has been the **privatization of agriculture through the liquidation of the former state and collective farms and distribution of titled land to individual farmers**. This project, which has received substantial financial and technical support from USAID and the World Bank, was initiated in 1997 as a pilot involving 73 farms. The program was expanded nationwide in 1998, and aims to complete the distribution of titles to more than 1 million farmers in 2000. As of mid–1999, over 900 state and collective farms have been included in the program and are at various stages of the process; 400 farms have reached the stage of liquidation, and land titles have been issued to around 200,000 farmers. The efforts have been closely coordinated with a World Bank–

[12] Large packets of shares in five of Moldova's nine sugar mills were sold to Sudzucker, Europe's largest sugar processor.

supported project to create a national cadastre, and 38 regional cadastre offices have been set up to register land titles and transactions.[13]

61. Legal reforms have been proceeding although at a slower–than–expected pace, most notably regarding the long delayed **Civil Code,** a draft of which was finally presented to the government in late July after three years of work by a special commission. The **bankruptcy law,** last amended in 1997 is being applied but with some difficulty owing to court personnel and administrative bottlenecks. Nevertheless, some 100 firms are in the bankruptcy process. Also the **collateral law** was recently amended to improve the efficiency of land transactions, including mortgages, foreclosures and simultaneous recording of sale and purchase documents. The land market is increasing in activity, especially transactions in enterprise land.

III. FISCAL FEDERALISM IN MOLDOVA[14]

A. Introduction

62. Moldova is a unitary State with two levels of government. Sub-national governments comprise 38 middle-tier jurisdictions (*rayons*), excluding Transnistria, and local governments (municipalities, cities, villages, and communes). Each sub-national unit has a separate budget, which is consolidated with the State budget and the Social Fund in the general government accounts. Local spending in these sub-national units is financed by local tax and non-tax revenues, and transfers and grants from the State budget.

63. The Moldovan government is currently implementing a series of institutional reforms aimed at rationalizing public sector operations and strengthening intergovernmental fiscal relations. In 1998, the Moldovan Parliament passed the Law on the Administrative and Territorial Reform, which reduced the number of sub-national units from the existing 38 rayons to 11 regional governments, effective July 1, 1999. These regional governments comprise 9 judets, an autonomous regional authority (UTA Gagauzia), and the Municipality of Chişinău. The Law on Local Public Finances, passed by Parliament in July 1999, deals with the assignment of expenditure functions and revenue sources to the new regional and local governments, and their relationship with the State budget through revenue-sharing arrangements. In conjunction with the

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[13] See Section V. Progress in restructuring Agricultural Production and Land Reform, for a detailed discussion of developments.

[14] Prepared by Luiz de Mello, IMF Fiscal Affairs Department.

Law on Local Public Administration,[15] the Law on Local Public Finances also contains provisions on tax administration, expenditure management, and budget execution.[16]

64. This section undertakes a brief examination of the current system of intergovernmental fiscal relations in Moldova. The impending changes are also analyzed to highlight the main improvements in the new system over the current system of intergovernmental fiscal relations and decentralized public sector provision.

B. The Current System

Revenue sources and expenditure functions

65. **The assignment of tax bases to sub-national governments in Moldova is in accordance with general public finance principles.** Broad, mobile tax bases are assigned to the State budget and narrow, immobile tax bases are assigned to regional and local budgets. The main tax bases assigned to sub-national budgets (rayons and local governments) are personal income, real estate and land taxes.[17] Sub-national budgets also collect non-tax revenues in the form of royalties and fees for the use and exploitation of natural resources, user charges for goods and services provided locally, and land fees and duties. The State budget collects excises, the road tax, and foreign trade taxes.[18] Due to their tax assignments, the rayons enjoy considerable tax autonomy: own tax revenues amounted to 46.9 percent of their total revenues on average in 1998.[19] Non-tax revenues totaled 12.5 percent of rayons' total revenues, on average, in 1998. Transfers from the State budget constitute another important source of revenue for sub-national budgets. Vertical imbalances—or the share of grants and transfers from the State budget in the

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[15] See Republic of Moldova, Law on Local Public Administration, 1998.

[16] Earlier versions of the Moldovan draft Law on Local Public Finances were reviewed by the World Bank and by FAD's Expenditure Policy and Tax Policy Divisions.

[17] The personal income tax has a broad base and should therefore, in principle, be assigned to the central government (State budget). This is because individuals often receive income from different sources and in different jurisdictions. In most BRO countries, however, the personal income tax is often assigned to local and middle-tier governments. In a number of countries, sub-national governments levy a sub-national income tax in addition to that levied by the central government.

[18] See Republic of Moldova 1999 Budget Law. See also Appendix Table 43, for a summary of the tax system in Moldova and main changes introduced in 1997-99.

[19] Sub-national governments are nevertheless not free to set tax bases and rates, somewhat limiting their policy-making autonomy.

total revenues of sub-national governments—amounted to 40.7 percent on average in 1998 (Table 11).[20] These vertical imbalances vary significantly across rayons: transfers from the State budget ranged from nearly 16.8 percent of total revenues in Chişinău to 72.2 percent in Leova.

66. **Local budgets are relatively large when compared to the State budget.** The revenues of sub-national governments totaled 34 percent of State budget revenues, Mdl 186 per capita or 6.7 percent of GDP in 1998. Rayons spent 11 percent of GDP in 1998. With regard to expenditure functions, the rayons financed approximately two-thirds of education spending, and approximately 60 percent of health spending in 1998. The fiscal stance of sub-national governments also differs from that of the central government. Local budgets had a cash surplus of Mdl 59 million in 1998 (or Mdl 16 per capita) whereas the State budget had a cash deficit of Mdl 300 million (or Mdl 79 per capita) (Table 12).

Revenue sharing arrangements

67. The revenues of the corporate income tax and VAT are shared between the State and local budgets.[21] The State budget is entitled to 50 percent of corporate income tax revenues, and

[20] These indicators can be compared with those of other countries. In a transition economy such as Russia, tax and non-tax autonomy (the share of taxes and non-taxes in the total revenues of sub-national governments), and vertical imbalances (the share of transfers and grants from higher levels of government in the total revenues of sub-national governments) amount to, respectively, 75 percent, 8 percent, and 17 percent of total sub-national revenues. Sub-national spending totals 38 percent of total government spending (1994–95 averages). In a decentralized federation such as Canada, tax and non-tax autonomy, and vertical imbalances amount to, respectively, 57 percent, 14 percent, and 29 percent of total sub-national revenues. The sub-national share of total government spending is 61 percent (1971–94 averages). In contrast, in a centralized unitary State such as France, tax and non-tax autonomy, and vertical imbalances amount to, respectively, 43 percent, 18 percent, and 39 percent of total sub-national revenues. The sub-national share of total government spending is 18 percent (1972–95 averages). See K. Fukasaku and L. de Mello, "Fiscal Decentralization and Macroeconomic Stability: The Experience of Large Developing Countries and Transition Economies," in *Democracy, Decentralization, and Deficits in Latin America,* ed. by K. Fukasaku and R. Hausmann (Paris: OECD), 1998, for further details.

[21] Because local tax bases are narrow, local governments are often unable to mobilize resources locally and finance spending in their jurisdictions. In this case, revenues are often shared between local and higher levels of government, whose tax bases tend to be broader and generate more revenues.

Table 11: Fiscal Decentralization Indicators, 1998

Sub-national Governments	Decentralization indicators		
	Autonomy 1/		Vertical Imbalances 3/
	Tax	Non-tax 2/	
Chisinau	63.3	19.9	16.8
Balti	39.0	9.5	51.5
Anenii Noi	47.1	8.6	44.3
Besarabeasca	39.8	10.0	50.2
Briceni	33.6	9.1	57.3
Cahul	29.8	12.3	57.9
Camenca	34.2	10.3	55.5
Cantemir	30.1	5.3	64.6
Cainari	41.6	5.7	52.7
Calarasi	36.9	5.5	57.6
Causeni	42.8	7.6	49.5
Gagauzia	45.9	6.6	47.5
Cimisla	35.8	11.9	52.2
Criuleni	41.9	8.1	50.0
Donduseni	41.2	8.2	50.6
Drocia	52.7	8.0	39.3
Dubaseri	24.8	5.9	69.3
Edinet	39.1	5.7	55.2
Falesti	39.3	8.3	52.4
Floresti	51.2	6.8	42.0
Glodeni	40.7	9.4	49.9
Hincesti	37.9	12.7	49.4
Ialoveni	45.0	11.3	43.8
Leova	20.6	7.2	72.2
Nisporeni	27.1	10.3	62.6
Ocnita	37.7	12.0	50.3
Orhei	40.0	8.4	51.6
Rezina	33.5	5.4	61.1
Riscani	27.8	7.2	65.0
Singerei	45.2	5.5	49.3
Soroca	39.5	12.7	47.8
Straseni	38.0	7.9	54.1
Soldanesti	26.0	6.3	67.7
Stefan-Voda	29.7	7.7	62.6
Taraclia	41.7	9.6	48.7
Telenesti	34.7	7.2	58.2
Ungeni	37.0	12.5	50.5
Vulcanesti	47.9	7.3	44.8
Average 4/	46.9	12.5	40.7

Sources: Ministry of Finance; and IMF staff calculations.

1/ The share of tax and non-tax revenues in total revenues (net of transfers).
2/ Includes capital revenues.
3/ The share of transfers from the State budget in total revenues (net of transfers).
4/ Weighted average.

Table 12: Sub-national Governments' Budget, 1998
(in per capita terms)

Sub-national Governments	Revenues 1/	Expenditures (on cash basis)	Revenue Gap 2/	Transfers 3/	Budget Balance
Chisinau	446	530	84	90	6
Balti	252	432	180	268	88
Anenii Noi	148	249	101	118	17
Besarabeasca	134	255	120	135	15
Briceni	124	271	146	167	20
Cahul	120	257	137	164	27
Camenca	34	73	39	42	2
Cantemir	94	262	168	171	4
Cainari	110	223	112	123	11
Calarasi	129	258	129	176	46
Causeni	124	247	123	122	0
Gagauzia	141	276	135	128	-7
Cimisla	118	251	132	130	-3
Criuleni	134	254	120	134	15
Donduseni	107	199	92	109	17
Drocia	153	254	101	99	-2
Dubaseri	31	102	72	70	-2
Edinet	135	221	86	166	80
Falesti	95	183	89	104	16
Floresti	158	299	141	114	-27
Glodeni	154	299	146	153	8
Hincesti	165	298	133	161	29
Ialoveni	102	181	79	79	0
Leova	72	234	163	186	23
Nisporeni	70	176	106	117	11
Ocnita	108	198	90	109	20
Orhei	116	215	99	124	25
Rezina	103	236	133	161	28
Riscani	84	239	155	157	2
Singerei	117	206	89	114	24
Soroca	115	219	104	105	1
Straseni	102	196	94	120	25
Soldanesti	80	247	167	168	1
Stefan-Voda	112	280	168	188	20
Taraclia	147	239	92	139	47
Telenesti	97	225	128	135	7
Ungeni	107	206	99	109	10
Vulcanesti	117	203	86	95	9
Average 4/	186	298	112	128	16
Memorandum item:					
State Budget	440	621			-79
of which: transfers		128			

Sources: Ministry of Finance; and IMF staff calculations.

1/ Includes tax (net of transfers), non-tax, and capital revenues.

2/ Expenditures minus revenues (net of transfers).

3/ From the State budget to local budgets.

4/ Weighted average.

the local budgets keep the remaining 50 percent.[22] In the case of VAT, the local budgets' share of total revenues ranges between 20 and 30 percent.[23] [24]

68. **The revenue-sharing system in Moldova is inefficient and deepens vertical imbalances between State and local budgets**. In the current system, intergovernmental transfers are aimed at bridging the gap between local revenues and expenditures. The system is inefficient for a number of reasons:

- When revenue sharing is aimed at filling the gap between sub-national governments' total revenues and expenditures, local budgets face the incentive to inflate expenditures and engage in perennial negotiations with the central government to attract more transfers from the State budget. Revenues are therefore diverted from the State budget, leading to a misallocation of resources between the State and local budgets.

- Gap-filling revenue-sharing systems also induce local budgets to under-utilize their own tax bases and finance local spending with resources transferred from the State budget. As a result, the cost of public sector provision can be exported to other jurisdictions by shifting the financing burden from local tax revenue mobilization to transfers from a common pool of sharable taxes.[25]

- The current gap-filling system does not equalize expenditure functions or revenue mobilization capacity among sub-national units on a per capita basis. Regional inequalities are therefore perpetuated.[26] This is because the demand for public goods and services tends to be higher in richer rayons, leading to more transfers from the State budget for the same level of revenues. In this case, richer rayons may receive more transfers in per capita terms than poorer rayons. The rayons also face little incentive to collect more local taxes in line with the rising demand

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[22]The exceptions are UTA Gagauzia and the municipalities of Chişinău and Bălti, which keep, respectively, 70 percent, and 40 percent of corporate income taxes collected in their jurisdictions.

[23] The share of VAT revenues of the municipalities of Chişinău and Bălti is 10 percent.

[24] See Republic of Moldova 1999 Budget Law.

[25] This is because transfers drive a wedge between the costs and benefits of public sector provision. The benefits of public spending can be internalized by local governments, whereas the costs of provision can be shared with the State budget and other sub-national governments.

[26] See T. Ter-Minassian (*Fiscal Federalism in Theory and Practice*, Washington D.C: International Monetary Fund, 1997), for further details.

for government provision of public goods and services. In the current system, the central government is also unable to ensure minimum provision standards throughout the country.[27]

C. The New System

Revenue and expenditure functions

69. **In the new system, the assignment of tax bases to sub-national governments remains broadly unchanged.** As in the current system, the main taxes assigned to sub-national governments are personal income, real estate, and land taxes. The State budget collects excises, the road tax, and foreign trade taxes. The revenues of the corporate income tax and VAT are shared between the State and local budgets according to a revenue-sharing formula. The shares (deductions) have nevertheless changed in the new system. The State budget is entitled to 30 percent of corporate income tax revenues, and local budget keep the remaining 70 percent. In the case of VAT, local budgets are entitled to 20 percent of total revenues.[28]

70. **In terms of expenditure function assignments, the new system has deficiencies**. There is potential overlap in the assignment of road construction and maintenance spending functions between judges and local governments.[29] The legislation is also unclear as to whether judets or local budgets should fund secondary education (lyceums and gymnasiums),[30]and health spending (medical centers and local clinics).[31] The legislation is also unclear as to the assignment of maintenance expenditure functions between judets and local governments. Co-financing may be envisaged in these areas as long as institutional arrangements are in place and a suitable co-financing formula is defined.

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[27] Instead, the State budget would finance spending in poorer jurisdictions to reduce regional disparities in public sector provision. Central government financing leads to overlapping expenditure functions between the central and local governments, and puts further strain on the State budget.

[28] These revenue–sharing rates are still being negotiated by the authorities with local governments.

[29] In this case, externalities in the provision of public goods and services would require co-financing by the jurisdictions benefiting from the public investment.

[30]Typically, these institutions draw students from a wider area covering more than one municipality/commune and should therefore be funded by the regional government.

[31] See Republic of Moldova, Law on Local Public Finances.

Revenue sharing arrangements

71. **In the new system of local public finances, revenue sharing is aimed at equalizing expenditure levels among sub-national jurisdictions on a per capita basis.** In addition to the changes in the parameters of the revenue-sharing formula, the main improvements of the new system over the current gap-filling system of revenue sharing are as follows.

- **The new system defines per capita expenditure norms for each sub-national unit.** Resources are then transferred to these jurisdictions to close the gap between per capita revenues and the respective per capita expenditure norms, rather than the actual expenditures of each sub-national unit (Table 13). Table 14 presents the expenditure norms for each new sub-national unit using 1999 estimates.[32] By shifting emphasis from actual spending to expenditure norms in the revenue-sharing formula, a minimum level of provision of public goods and services can be ensured, despite differences in revenue mobilization capacity across sub-national units.

- **The new system excludes local tax and nontax revenues from the revenue estimates used in the revenue-sharing formula** (Table 15). This encourages sub-national governments to fully utilize their local bases and non tax sources of finance. Tax effort is encouraged as revenues collected locally are not shared horizontally with other regional governments. A stronger association is therefore created between the costs and benefits of public sector provision.

72. The new system nevertheless suffers from two main limitations:

- **The new revenue-sharing system is based on actual revenues to define the shortfall to be transferred to sub-national governments, rather than indicators of fiscal capacity.**[33] In this case, the system may create an incentive for revenue-rich units to hide sharable revenues.[34] It may also discourage tax effort, as low-effort subnational units may free ride on the sharable resources mobilized by high-effort sub-national governments.

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[32]These norms were calculated by the authorities and are yet to be negotiated with sub-national governments.

[33] The main indicators of fiscal capacity are per capita income, or average wage, of different sub-national units; the breadth of local tax bases; provision costs; and sources of non-tax revenues (natural resource endowments, for instance).

[34] The use of extrabudgetary funds is encouraged in this case as a means to conceal sharable revenues from the budget.

Table 13: New Revenue-Sharing System, 1999 1/
(In per capita terms, unless otherwise indicated)

Sub-national Governments	Expenditure Norms 2/	Revenues 2/	Revenue Gap 3/	Cost to the Budget 4/ (in thousands of lei)
Balti	201	181	20	10474
Cahul	211	152	59	14904
Chisinau	209	123	86	33233
Edinet	183	188	-5	-1660
Lapusna	217	117	100	29701
Orhei	205	137	67	20419
Soroca	190	162	29	9143
Tighina	206	140	67	13558
Ungheni	209	121	88	26503
Average (*judets*) 5/	203	149	54	17364
UTA Gagauzia	212	145	67	11726
Mun. Chisinau	214	390	-176	-138768
Average 5/	206	198	8	29234

Sources: Ministry of Finance; and IMF staff calculations.

1/ Under the Law on the Administrative-Territorial Reform and the Law on Local Public Finances.
2/ 1999 estimates.
3/ Expenditures minus revenues (net of transfers).
4/ Revenue gap times population.
5/ Weighted average.

Table 14. Sub-national Government Expenditure Estimates by Category, 1999
(In thousands of lei)

Sub-national Governments	Agriculture	Road Maintenance	Social Spending				Other	Total
			Education	Culture	Health	Social assistance		
Balti	796	5600	55526	1337	34349	1414	6412	105435
Cahul	386		32028	648	16716	688	3108	53574
Chisinau	591		49588	991	24172	1053	4755	81149
Edinet	497		31024	829	22332	877	3977	59536
Lapusna	452		40656	758	18124	805	3636	64430
Orhei	460		36696	772	19462	820	3703	61913
Soroca	485		33219	814	21433	864	3902	60717
Tighina	310		24902	520	13229	552	2495	42008
Ungheni	458		37439	769	19774	817	3688	62945
Total (*judets*)	4434	5600	341078	7438	189591	7890	35675	591706
UTA Gagauzia	266		22869	447	10822	470	2142	37016
Mun. Chisinau	1200	13100	93453	2015	47287	2140	9683	168878
Total	5900	18700	457400	9900	247700	10500	47500	797600

Sources: Ministry of Finance; and IMF staff calculations.

Table 15. Sub-national Government Revenue Estimates, 1999
(In thousands of lei)

Sub-national Governments	Own Revenues	Corporate Income Tax 1/	VAT 2/	Total	Local Taxes 3/	Transfers 4/
Balti	63875	15084	16001	94960	6055	-10474
Cahul	31537	3725	3407	38669	1608	-14904
Chisinau	35358	6565	5993	47916	2097	-33233
Edinet	45722	6146	9328	61196	2686	1660
Lapusna	30417	2403	1909	34729	2435	-29701
Orhei	31039	5319	5136	41494	1465	-20419
Soroca	41568	4302	5703	51573	2064	-9143
Tighina	23536	2554	2360	28450	966	-13558
Ungheni	27100	4343	4999	36442	1358	-26503
Total (*judets*)	330153	50442	54836	435430	20733	-156276
UTA Gagauzia	19007	3083	3200	25290	1410	-11726
Mun. Chisinau	199854	63132	44660	307646	21682	138768
Total	549014	116657	102696	768366	43825	-29234

Sources: Ministry of Finance; and IMF staff calculations.

1/ Calculated as 70 percent of total collection in each jurisdiction.
2/ Calculated as 20 percent of total collection in each jurisdiction.
3/ Includes local non-tax revenues (user charges, fees, etc.)
4/ A negative sign indicates a net receipt of transfers.

- **The definition of local tax revenue sources and autonomy to set local tax rates create incentives for sub-national units to fully utilize their tax bases.**[35] In Moldova, this is conditional on the passing by parliament, and subsequent implementation of, the legislation on land, property, and real estate taxes; the privatization of rural properties, particularly collective farms; the creation of rural property cadastres; and the proper valuation of rural properties.

D. Additional Improvements of the New System

73. In addition to advances in the area of revenue sharing, the new system improves upon the current system in two main areas.

Institutional reform

74. **The new legislation contains important provisions to limit sub-national budget imbalances**. A balanced budget constraint was introduced according to which local legislatures are required to approve balanced budgets.[36] This is expected to impose a hard–budget constraint on sub-national governments. [37] The new legislation allows for longer-term borrowing by sub-national governments to finance capital outlays. It also imposes a limit on short-term borrowing based on revenue performance: short-term borrowing is limited to 5 percent of expected revenues, and total borrowing is limited to 20 percent of expected revenues.[38] The legislation also bans State budget guarantees on sub-national debt issuance. This is expected to reduce the scope for central government bailouts of profligate sub-national governments.

Expenditure management and budget execution

75. **The new legislation also improves upon the current system in the area of budget execution**. Sub-national budget execution is required in conformity with the State budget law. The consolidation of public sector accounts is expected to be improved due to more frequent reporting of sub-national fiscal positions, and more stringent financial control of sub-national

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[35] In principle, local tax bases should be inmobile to avoid tax exportation and to allow the state budget to reap the benefits of economies of scale and externalities in the provision of public goods and services.

[36] See Republic of Moldova, Law on Local Public Finances.

[37] See Ter-Minassian (1997), for further details.

[38] See Republic of Moldova, Law on Local Public Finances.

budgets.[39] More adequate and timely information is expected to be available on spending plans, revenue projections, and borrowing requirements for each tier of government.

76. **Expenditure management is likely to be improved due to the extension of the treasury system to local governments**. In 1998, the treasury system was extended to the regional governments and is due to be further extended to local governments. Completion is due by end-2000. More effective cash management is expected to follow from the increase in the coverage of the treasury system.

IV. FISCAL BARTER AND NETTING OPERATIONS[40]

A. Introduction

77. Barter transactions and mutual settlement or "netting" operations (the latter consisting of cancellation of claims arising from expenditure arrears and tax receivables) are carried out extensively by the fiscal authorities in most BRO countries. In Moldova, **barter operations** are concentrated in the Social Fund, which collects goods in lieu of cash contributions from enterprises and passes these on to pensioners. The budget and the Social Fund also engage in extensive barter and netting operations with gas, electric and district heating companies.

78. **Netting operations emerged as a response to weaknesses in tax collection and the build-up of expenditure arrears**. Initially, the offsets dealt with cross claims of the tax authorities and enterprises, especially the energy sector, which supplies electricity and gas to budgetary institutions, as well as other providers of services to the state. However, with time, netting operations have become a formal, entrenched, and large-scale practice.

79. Recognizing that netting operations have undesirable characteristics, the Moldovan government has pledged in recent years, usually in connection with IMF EFF program commitments, to sharply reduce or eliminate netting operations. **Program targets include a cap on netting operations of 10 percent of tax revenues in 1999**, and a ban on these operations in 2000. However, lacking more realistic expenditure commitments or additional revenue measures, these pledges have failed. Netting operations were quite modest during the first several months of both 1997 and 1998, but then were conducted on a massive scale in December 1997 and December 1998, (Mdl 345 million and Mdl 401 million, respectively). These massive netting operations allowed the authorities to reduce cash expenditures—a performance criterion under IMF and World Bank lending programs.

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[39] See Republic of Moldova, Law on Local Public Finances.

[40] Prepared by Mark Horton, IMF Resident Representative, and Luiz de Mello, IMF Fiscal Affairs Department.

B. Netting Operations in 1996-1998

80. **Cancellation of tax and penalty receivables via netting operations accounted for more than 35 percent of tax revenues in Moldova in 1996-1998**. Netting operations of the local governments accounted for 40 percent of total revenues in 1997-1998 (Table 16). These operations complicate budgetary policy and implementation; expenditure commitments are set too high in the annual budget and cash collections inevitably prove to be insufficient. For example, expenditure commitments that are set in the budget at Mdl 3,000 million, versus a revenue target of Mdl 2,850 million, imply daily commitments of Mdl 11.5 million. Yet, if the revenue and expenditure figures are based on netting operations of Mdl 1,000 million lei, daily cash collections may comprise just Mdl 6-8 million. This shortfall causes expenditure arrears to emerge immediately, and pressures begin to build for mutual settlements. The underlying commitments deficit is not Mdl 150 million, as suggested by the formal budgetary figures, but may rather be Mdl 1 billion higher. Netting operations have therefore become a convenient device for avoiding more profound fiscal adjustments—sweeping expenditure cuts and/or stronger revenue collection measures.

81. **At the level of the State budget, the bulk of netting operations in Moldova involve VAT and excise receivables**: these accounted for approximately half of VAT collections and one quarter of excise revenues in 1997 and 1998 (Table 17). At the local level, netting operations have been spread over a wider variety of taxes (Table 18). On the expenditure side, netting operations by the state budget have been concentrated on payments for goods and service—mainly electricity, heating and water—and for transfers to utilities to cover loss-inducing tariff shortfalls, intergovernmental transfers, capital expenditures and purchases of goods and equipment (Table 19). Netting operations also tend to be concentrated in the final quarter of the year (Table 20), reflecting a build-up of tax and expenditure arrears throughout the year and pressures to "clear" these via mutual settlements at year-end.

C. How Netting Operations Work

82. The root of netting operations is in the accumulation of domestic expenditure arrears, which have served as an important source of "deficit financing" in Moldova (Table 21).[41] Domestic expenditure arrears that involve the nonpayment of pensions leave salary earners and pensioners unable to pay their utility bills. Arrears are also accumulated due to the State's nonpayment for communal services provided to budgetary institutions. In turn, the utility

[41] See Section II, B, for greater details.

Table 16. Moldova: Netting Operations of the Consolidated Government, 1996-98
(In millions of lei)

	1996	1997	1998
Cash revenues			
State budget	828.0	1,383.4	1,335.3
Local budgets	516.2	474.7	411.1
Total	1,344.2	1,858.1	1,746.4
Netting Operations			
State budget	421.2	734.9	690.3
Local budgets	308.8	348.7	285.2
Total	730.0	1,083.6	975.5
Total Revenues			
State budget	1,249.2	2,118.3	2,025.6
Local budgets	825.0	823.4	696.3
Total	2,074.2	2,941.7	2,721.9
Netting Operations in percent of Total Revenues			
State budget	33.7	34.7	34.1
Local budgets	37.4	42.3	41.0
Total	35.2	36.8	35.8

Sources: Ministry of Finance; and Fund staff estimates.

Table 17. Moldova: Netting Operations of the State Budget, Revenue Recording, 1996-98

(In thousands of lei; unless otherwise indicated)

	Q1	Q2	Q3	Q4	Year
			Fiscal Year 1996		
Profit Tax	5.8	7.9	13.0	22.1	48.8
VAT	17.5	41.3	64.6	116.9	240.3
Excises	5.7	8.7	11.2	18.4	44.0
Goods and Services Tax	-	0.3	0.2	(0.3)	0.2
Privatization Revenues	-	(0.4)	(0.7)	-	(1.1)
NBM Profits	-	-	-	-	-
Special Road Tax	-	-	-	0.4	0.4
Other Revenues	4.5	30.6	27.9	36.4	99.4
Total	33.5	88.4	105.4	193.9	421.2
			Fiscal Year 1997		
Profit Tax	1,528	1,956	11,772	40,800	56,056
VAT	31,980	80,614	84,460	250,792	447,846
Excises	1,407	17,186	35,042	52,672	106,307
Goods and Services Tax	-	1,728	1,261	(15,154)	(12,165)
Privatization Revenues	-	-	949	3,090	4,039
NBM Profits	-	-	-	-	-
Special Road Tax	-	85	75	1,045	1,205
Other Revenues	880	16,474	21,982	92,207	131,543
Total	35,795	118,043	155,541	425,452	734,831
			Fiscal Year 1998		
Profit Tax	-	5,822	2,352	19,228	27,402
VAT	3,585	19,801	73,109	395,796	492,291
Excises	11,978	2,176	5,353	74,744	94,251
Goods and Services Tax	-	-	34	2,025	2,059
Privatization Revenues	-	-	-	-	-
NBM Profits	-	-	-	-	-
Special Road Tax	-	-	-	-	-
Other Revenues	-	8,227	16,645	49,444	74,316
Total	15,563	36,026	97,493	541,237	690,319
Memorandum items:					
Netting operations in percent of GDP					
1996	4.8				
1997	7.3				
1998	6.8				

Sources: Ministry of Finance; and Fund staff estimates.

Table 18. Moldova: Netting Operations of the Local Budgets, 1996-98
(In millions of lei)

	1996				1997				1998			
	Netting Operations	Share	Total Revenues	Percent	Netting Operations	Share	Total Revenues	Percent	Netting Operations	Share	Total Revenues	Percent
Enterprise Income Tax	124.3	40.3	242.4	51.3	47.8	13.7	97.1	49.2	21.3	7.5	72.4	29.4
Wage Tax	54.0	17.5	219.1	24.6	101.8	29.2	281.2	36.2	82.2	28.8	224	36.7
Land Tax	46.6	15.1	109.5	42.6	78.1	22.4	125.3	62.3	61.1	21.4	85.7	71.3
VAT	37.7	12.2	86.5	43.6	55.1	15.8	102.3	53.9	29.6	10.4	119.5	24.8
Excises	-	-	-	-	-	-	-	-	-	-	-	-
Other Revenues	46.2	15.0	167.5	27.6	65.9	18.9	217.9	30.2	91	31.9	194.7	46.7
Total	308.8	100.0	825.0	37.4	348.7	100.0	823.8	42.3	285.2	100.0	696.3	41.0

Sources: Ministry of Finance; and Fund staff estimates.

Table 19. Moldova: Netting Operations of the State Budget, Expenditure Recording, 1997-1998
(In thousands of lei)

Expenditure Category	Code	Sub-code	1997 Total	1997 Share (in percent)	1998 Total	1998 Share (in percent)
Labor compensation	111	Total	1,672.0	0.2	2,365.0	0.3
Contributions to the State Social Insurance Budget	112	Total	-	0.0	10.7	0.0
Payment for goods and services	113	Total	176,387.0	23.2	126,539.8	18.3
Of which:						
Electricity	113	1	27,281.0	3.6	26,367.6	3.8
Gas	113	2	3,665.2	0.5	2,083.9	0.3
Thermal energy	113	4	55,930.3	7.3	34,137.6	4.9
Water, sewage and purification	113	8	32,195.7	4.2	26,425.3	3.8
Food	113	9	7,865.2	1.0	5,639.6	0.8
Medicines and bandages	113	10	10,098.8	1.3	3,731.1	0.5
Telecommunications and postal services	113	11	8,342.9	1.1	5,962.4	0.9
Other goods and services	113	45	9,249.0	1.2	11,685.1	1.7
Business trips	114	Total	270.6	0.0	-	0.0
Transfers for goods and services	131	Total	43,195.7	5.7	83,970.7	12.2
Transfers in connection with production	132	Total	37,628.2	4.9	42,028.0	6.1
Of which:						
Transfers for land irrigation	132	1	15,360.9	2.0	6,851.5	1.0
Transfers for the Road Fund	132	2	17,084.1	2.2	30,513.0	4.4
Transfers for budgets of other levels	133	Total	218,453.1	28.7	173,232.4	25.1
Transfers for financial institutions and other organizations	134	Total	-	-	104.9	0.0
Transfers to the population	135	Total	3,893.0	0.5	-	0.0
Transfers abroad	136	Total	45.1	0.0	67.0	0.0
Of which:						
Quota payments for membership in the CIS	136	2	45.1	0.0	67.0	0.0
Transfers to the risk fund	137	Total	(38,108.0)	(5.0)	-	0.0
Transfers to the State Social Insurance Budget	138	Total	51,271.8	6.7	43,513.3	6.3
Other current expenditures	181	Total	82,841.4	10.9	69,760.5	10.1
Contributions of the government to implementation of programs	191	Total	73.4	0.0	630.1	0.1
Capital investment in construction	241	Total	144,849.4	19.0	86,804.0	12.6
Purchase of equipment and useful objects	242	Total	47,464.5	6.2	99,951.4	14.5
Capital repairs	243	Total	7,853.9	1.0	3,992.7	0.6
Formation of the state reserve	251	Total	12,243.4	1.6	-	0.0
Formation of the state treasury	252	Total	701.7	0.1	-	0.0
Transfer of capital within the country	271	Total	12,797.6	1.7	36,988.8	5.4
Of which:						
Transfers to the fund for sectoral support	271	6	10,331.1	1.4	-	0.0
Transfer of funds for viticulture support	271	12	-	0.0	32,344.8	4.7
Transfer of funds abroad	272	Total	-	0.0	187.9	0.0
Transfer of funds for public administrative organs	273	Total	26,781.8	3.5	39,702.9	5.8
Other capital expenditures	281	Total	4,596.1	0.6	7,893.4	1.1
Net credit	611	Total	(73,426.6)	(9.6)	(128,401.5)	-18.6
Total expenditure recorded via netting operations			761,485.3	100.0	690,319.4	100.0

Source: Ministry of Finance data; and Fund staff estimates.

Table 20. Moldova: Netting Operations of the State Budget, Monthly Expenditure Recording, 1997-98
(In thousands of Moldovan lei and in percent)

	1997			1998		
		Share (In percent)	Cumulative		Share (In percent)	Cumulative
January	13.5	0.0	0.0	-	0.0	0.0
February	7,096.9	0.9	0.9	-	0.0	0.0
March	32,052.0	4.2	5.1	15,562.8	2.3	2.3
April	35,047.7	4.6	9.7	-	0.0	2.3
May	45,620.7	6.0	15.7	21,016.4	3.0	5.3
June	76,653.6	10.1	25.8	15,009.5	2.2	7.5
July	35,434.3	4.7	30.5	27,281.5	4.0	11.4
August	31,714.2	4.2	34.6	42,105.0	6.1	17.5
September	113,631.8	14.9	49.5	28,106.4	4.1	21.6
October	44,481.8	5.8	55.4	35,372.3	5.1	26.7
November	(5,452.4)	-0.7	54.7	105,293.4	15.3	42.0
December	345,191.2	45.3	100.0	400,572.1	58.0	100.0
Total	761,485.3	100.0		690,319.4	100.0	
Quarter I	39,162.4	5.1	5.1	15,562.8	2.3	2.3
Quarter II	157,322.0	20.7	25.8	36,025.9	5.2	7.5
Quarter III	180,780.3	23.7	49.5	97,492.9	14.1	21.6
Quarter IV	384,220.6	50.5	100.0	541,237.8	78.4	100.0

Source: Ministry of Finance; and Fund staff estimates.

Table 21. Moldova: Arrears of the General Government, 1997-99
(In millions of lei, unless otherwise indicated)

	1997	1998					1999
		Q1	Q2	Q3	Q4	Year	Q1
Domestic expenditure arrears							
End-period stock	469	572	729	818	826	826	909
Of which:							
State budget	201	263	384	386	403	403	347
Change in arrears		103	157	89	8	357	83
Of which :							
State budget		62	121	2	17	202	-56
Social Fund arrears							
End-period stock	209	226	307	299	283	283	372
Of which :							
Pension arrears	198	213	290	279	259	259	352
Change in arrears		16	81	-8	-16	74	89
Total stock of arrears	679	798	1,036	1,117	1,109	1,109	1,281
Of which :							
State budget	411	488	691	685	686	686	719
Total change in arrears	-285	120	238	81	-8	430	172
Of which :							
State budget		78	202	-6	1	275	33
Interest (External) Arrears	7	9	27	10	45	92	38
Memorandum item:							
Netting Operations 1/	735	16	36	98	541	690	0

Sources: Ministry of Finance; and Fund staff estimates.

1/ State Budget

companies, which are discouraged from making disconnections, are unable to pay taxes, and thereby accumulate tax arrears.[42] Subsequently, with mutual settlements, these tax arrears are netted out against domestic expenditure arrears. Pension and wage arrears may be netted against individuals' late payments to the utilities.

83. Service providers may be unable to collect taxes from transactions with third parties, which also provide goods and services to the state, generating "three-party" mutual claims for off-setting. For example, a farm may be unable to pay a fuel company, which in turn cover excise taxes to the state. Yet, the state may owe the farm for food supplied. In their netting operation, the state agrees to cancel its tax claim on the fuel company, which in turn cancels an equivalent claim on the farm for diesel fuel, and the farm closes the loop by canceling its claim on the state for agricultural produce. More importantly, the offsetting may extend to penalties assessed by the state on the tax arrears of the fuel company, and the two economic agents may be encouraged to apply their own penalties, or to price their goods at levels that do not correspond to the market rate.

D. Netting Operations: The Problems

84. Mutual settlement operations introduce considerable complications, including pressures for **over-estimated claims** both by the state and by service providers in order to place anticipated, subsequent mutual offsets on more advantageous terms. Netting operations may also provide disincentives for tax collections and payments and for enterprise restructuring, thereby complicating conduct of fiscal policy and projections and for the economy as a whole. To the extent that netting operations are exaggerated or otherwise deprive firms of revenues, they lead to **de-capitalization of service providers** and contribute to a **build-up of external debt**. This is especially evident in the energy sector, where netting operations allow the state to "clear" its arrears before electric and gas utilities, but leave these enterprises with no liquidity to pay Ukrainian and Russian suppliers.

85. The fiscal authorities may be encouraged to assess the fuel company exorbitant penalties for its tax arrears in order to cancel state obligations for payment of even greater deliveries of food from the farm. If the state thereby "gets something for nothing" it may leave the fuel company with insufficient cash to pay foreign suppliers, who are little interested in receiving tax relief in the Republic of Moldova as a form of payment. At the extreme, a tax authority may apply a penalty to a late tax payment equivalent to the cost of some desired good or service and agree to "offset" its claim in exchange for provision of the particular good or service.

[42] Salary arrears are accumulated primarily by local governments. Typically, pensions are paid on time in Chişinău and with a short delay in Bălti. For the country as a whole, the average delay in pension payments is nine months. The delay in payments in rural areas may be as long as one year.

86. When mutual cancellations are made, they are recorded as tax payments that had been in arrears and as payment of the delayed expenditure, even if the actual expenditure was made in a previous fiscal period. This is especially important for capital expenditure. For example, a construction companies may be paid via tax forgiveness today—or forgiveness of a penalty on a tax arrear—in exchange for a project that was completed last year. One may observe that if arrears in payments to construction companies for past capital investment projects exceed the current year's line item allocation for capital expenditures, no new spending will take place.

87. Netting operations complicate fiscal policy assessment by introducing fourth quarter **seasonality in revenues and expenditures**. There may be a perverse sort of "seasonality" if enterprises deliberately hold back on cash tax payments to the budget during the year, using the funds elsewhere (perhaps even buying treasury bills) while waiting (and pressuring) for end-year netting operations that may involve inflated or otherwise non-transparent claims on the budget (for example, via unmetered deliveries of energy resources or agreements between energy companies and their parties). As indicated in Table 22, arrears on fiscal revenues increased by 80 percent during 1996-1998 and now amount to nearly 15 percent of GDP.

E. Barter Operations of the Social Fund

88. Due to the accumulation of arrears, **salary-earners and pensioners have received payments in kind**. Typically, pensioners and salary-earners may buy goods from co-operatives against their outstanding pension and salary payments. These settlements are recorded as in-kind payments. Such payments have always been "voluntary" in Moldova, but when the likelihood of cash payments is low, incentives to accept barter payments may be significant. There have long been complaints that the notional prices of goods used to make in-kind pension payments have been much greater than prices for the same goods in local shops and markets.[43]

89. **Social security contributions have also been paid in kind**; the firms with the largest in-kind Social Fund contribution payments during 1996-1998 included the electric utility Moldenergo, Moldovagaz, the two district heating companies (Termocom and Termocomenergo), a grain storage enterprise, and firms producing bread products, carpets, shoes, textiles and candy and confections. At the end of 1998, the Moldovan government allowed pensioners to cancel their overdue electricity bills against pension arrears.[44] As with netting operations of the State and local budgets, barter operations of the Social Fund have tended to be concentrated in the second half of the year (Table 23). Unlike netting operations, this may reflect

[43] In part, this reflected regulations that prevented the sale of the goods by Social Fund officials at deep discounts—i.e., to connected companies—in fraudulent transactions.

[44] This policy must have given a negative signal to pensioners regarding future payments for electricity, if their expectations for future timely pension payments were low.

Table 22. Moldova: Tax Arrears, 1995-98
(In millions of lei)

	December 31, 1995			December 31, 1996			December 31, 1997			December 31, 1998		
	State Budget	Local Budget	Total	State Budget	Local Budget	Total	State Budget	Local Budget	Total	State Budget	Local Budget	Total
Enterprise Income Tax	20.6	40.5	61.1	26.8	23.4	50.2	30.0	25.4	55.4	32.6	26.3	58.9
Wage Tax	-	1.1	1.1	-	55.7	55.7	-	35.9	35.9	-	44.2	44.2
Land Tax	43.1	92.5	135.6	-	171.7	171.7	-	106.6	106.6	-	102.0	102.0
Real Estate Tax	-	6.6	6.6	-	7.8	7.8	-	16.0	16.0	-	13.5	13.5
VAT	154.5	25.9	180.4	197.4	58.8	256.2	218.5	65.0	283.5	362.1	99.9	462.0
Excises	66.3	-	66.3	88.9	-	88.9	76.1	-	76.1	108.8	-	108.8
Payments for Water Use	0.5	8.4	8.9	-	8.9	8.9	-	5.3	5.3	-	4.3	4.3
Road Fund	18.4	31.4	49.8	26.4	-	26.4	16.8	-	16.8	14.9	-	14.9
Other Revenues	-	-	-	-	-	-	-	-	-	-	9.1	9.1
Total	303.4	206.4	509.8	339.5	326.3	665.8	341.4	254.2	595.6	518.4	299.3	817.7
Arrears on Social Fund Contributions			313.1			539.1			536.6			666.4
Total Arrears on Fiscal Revenues			822.9			1,204.9			1,132.2			1,484.1
	Increase of Tax Arrears (December 31, 1995 = 100.0)											
Enterprise Income Tax	100.0	100.0	100.0	130.1	57.8	82.2	145.6	62.7	90.7	158.3	64.9	96.4
Wage Tax	100.0	100.0	100.0	-	5,063.6	5,063.6	-	3,263.6	3,263.6	-	4,018.2	4,018.2
Land Tax	100.0	100.0	100.0	-	185.6	126.6	-	115.2	78.6	-	110.3	75.2
Real Estate Tax	100.0	100.0	100.0	-	118.2	118.2	-	242.4	242.4	-	204.5	204.5
VAT	100.0	100.0	100.0	127.8	227.0	142.0	141.4	251.0	157.2	234.4	385.7	256.1
Excises	100.0	100.0	100.0	134.1	-	134.1	114.8	-	114.8	164.1	-	164.1
Payments for Water Use	100.0	100.0	100.0	-	106.0	100.0	-	63.1	59.6	-	51.2	48.3
Road Fund	100.0	100.0	100.0	143.5	-	53.0	91.3	-	33.7	81.0	-	29.9
Other Revenues	100.0	100.0	100.0	-	-	-	-	-	-	-	-	-
Total	100.0	100.0	100.0	111.9	158.1	130.6	112.5	123.2	116.8	170.9	145.0	160.4
Arrears on Social Fund Contributions			100.0			172.2			171.4			212.8
Total Arrears on Fiscal Revenues			100.0			146.4			137.6			180.3
Memorandum item:												
Tax arrears in percent of GDP	4.02	2.74	6.76	3.85	3.70	7.54	3.37	2.51	5.89	5.12	2.96	8.08
Social Fund contributions			4.15			6.11			5.30			6.59
Total Arrears			10.91			13.65			11.19			14.67

Sources: Ministry of Finance; and Fund staff estimates.

Table 23. Moldova: Contributions to the Social Fund, 1996-98
(In thousands of lei, unless otherwise indicated)

	1996					1997					1998				
	Q1	Q2	Q3	Q4	Year	Q1	Q2	Q3	Q4	Year	Q1	Q2	Q3	Q4	Year
Total Social Fund Contributions	136,808.6	171,468.3	200,223.6	213,415.6	721,916.1	216,016.1	166,330.2	133,797.2	177,466.6	693,610.1	155,545.3	194,909.0	246,230.8	182,769.3	779,454.4
In cash	112,469.1	139,563.4	132,835.9	109,440.3	494,308.7	97,370.0	82,394.9	78,386.7	103,146.7	361,298.3	86,004.8	95,468.0	93,301.0	72,986.0	347,759.8
Compensations paid at workplaces	23,923.7	24,070.6	23,361.0	25,558.5	96,913.8	25,183.1	23,562.3	24,995.4	29,235.5	102,976.3	23,857.3	23,576.7	23,157.5	25,027.3	95,618.8
Barter contributions	-	7,365.8	34,122.1	67,953.8	109,441.7	93,416.0	60,373.0	30,415.1	45,084.4	229,288.5	36,353.5	53,273.7	115,037.4	85,518.9	290,183.5
Netting operations	415.8	468.5	9,904.6	10,463.0	21,251.9	47.0	-	-	-	47.0	9,329.7	22,590.6	14,734.9	(762.9)	45,892.3
Contributions from the State Budget	239.3	6,364.3	8,482.4	8,165.8	23,251.8	52,345.3	89,854.3	3,940.1	159,541.6	305,681.3	71,024.4	15,833.5	1,000.0	49,085.8	136,943.7
Cash contributions	239.3	6,364.3	8,482.4	8,165.8	23,251.8	29,509.0	70,741.5	1,878.1	150,986.9	253,115.5	55,461.6	13,000.0	-	-	68,461.6
Netting operations	-	-	-	-	-	22,836.3	19,112.8	2,062.0	8,554.7	52,565.8	15,562.8	2,833.5	1,000.0	49,085.8	68,482.1
Memorandum Items:															
In percent of total contributions:															
Cash contributions	82.2	81.4	66.3	51.3	68.5	45.1	49.5	58.6	58.1	52.1	55.3	49.0	37.9	39.9	44.6
Barter contributions	0.0	4.3	17.0	31.8	15.2	43.2	36.3	22.7	25.4	33.1	23.4	27.3	46.7	46.8	37.2
Netting operations	0.3	0.3	4.9	4.9	2.9	0.0	0.0	0.0	0.0	0.0	6.0	11.6	6.0	-0.4	5.9
Barter contributions and Netting	0.3	4.6	22.0	36.7	18.1	43.3	36.3	22.7	25.4	33.1	29.4	38.9	52.7	46.4	43.1
State Budget netting operations (in percent of state contributions)	0.0	0.0	0.0	0.0	0.0	43.6	21.3	52.3	5.4	17.2	21.9	17.9	100.0	100.0	50.0
In percent of GDP:															
Total contributions					8.2					6.9					7.7
Barter contributions and Netting					1.5					2.3					3.3

Source: Social Fund; and Fund staff estimates.

more accurately the seasonality of Social Fund operations, due to greater winter energy consumption and the fall-winter production cycle of agro-processors.

90. **Progress has been made in 1999 to limit in-kind contributions and pension payments**. At the enterprise level, in-kind contributions are to be limited to 50 percent of payments due to the Social Fund in the first half of 1999, and to 25 percent in the second half of the year. In-kind contribution are to be phased out in 2000. The Social Fund has also transferred collection responsibilities to the State Tax Inspectorate, which is expected to improve collections by centralizing them within the State's collection authority and by removing the possibility for taxpayers to "play off" the Social Fund against the STI in their payments of Social Fund contributions and other taxes. In the case of pensions, in-kind payments increased in 1998 as a share of total payments.[45] This reversed the 1997 trend of increasing shares of payments in cash (Table 24).

F. Legal Basis for Netting Operations

91. The legal basis for netting operations has been prescribed in a series of government resolutions, the most recent of which was Government Decision No. 18 of April 1, 1999. In the decision, the share of budget revenues through such operations must not exceed 10 percent of the annual revenues to the State budget and consolidated budget. This would represent a significant reduction of netting operations from their level of 35.8 percent of revenues in 1998. The decision stipulates that:

92. Netting operations may also be used to eliminate budgetary debts arising from capital investment in construction made during 1994-1998.

93. The decision provides for cancellation of state claims, except for those arising from petroleum product excises, income tax and VAT, road tax, dividends from state participation in commercial companies, state fines on all types of taxes and duties and payments for customs procedures.

94. The decision stipulates "priorities" for netting operations by the four major Moldovan energy companies Termocomenergo, Termocom, Moldtranselectro, and Moldovagaz, which make fuel purchases via commercial bank credits.[46]

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[45] In-kind payments increased as a share of total payments in the third and fourth quarters of 1998. This may be attributed to the adverse impact of the Russian crisis on economic activity and tax collection.

[46] Moldtranselectro is one of the successor entities to the former Moldenergo and is responsible for transmission of electricity to five electric distribution utilities.

Table 24. Moldova: Pension Payments in Cash and in Kind, 1997-99

(In thousands of lei, unless otherwise indicated)

	1997					1998					1999
	Q1	Q2	Q3	Q4	Year	Q1	Q2	Q3	Q4	Year	Q1
In cash	116,876	170,152	94,812	154,791	536,631	134,300	79,321	71,669	70,254	355,544	72,400
In kind	115,258	79,485	32,477	58,339	285,559	36,353	53,274	115,037	121,496	326,160	38,100
Total	232,134	249,637	127,289	213,130	822,190	170,653	132,595	186,706	191,750	681,704	110,500
	(In percent of total payments)										
In cash	50.3	68.2	74.5	72.6	65.3	78.7	59.8	38.4	36.6	52.2	65.5
In kind	49.7	31.8	25.5	27.4	34.7	21.3	40.2	61.6	63.4	47.8	34.5

Sources: Ministry of Finance; and Fund staff estimates.

95. The decision also permits inter-governmental netting operations, including the Social Fund.

G. Conclusions

96. The extensive use of netting operations creates significant problems, mainly in the areas of tax administration and budget programming, in the relationship between the budget and firms supplying goods and services to the government, and in the accumulation of external arrears. In the area of tax administration and budget programming, the extensive use of netting operations leads to:

- **Overestimation of tax collections**. The system of mutual settlements allows for an artificial increase in tax revenues at the end of the year. In addition, it distorts the seasonality of tax revenues and expenditures, thus reducing the accuracy of budget forecasts and transparency in budget execution. Without deeper consideration of the full impacts of netting operations on suppliers and on external debt, the fiscal authorities may come to view these overestimated tax revenues as "real".

- **Reduced tax effort and tax collection in cash**. Due to mutual settlements, tax effort is discouraged, particularly at the local level. Given that the accumulation of domestic expenditure arrears is an important source of financing in Moldova, efforts to reduce budget deficits by trimming expenditures and boosting tax revenues are discouraged by the extensive use of netting operations. As noted earlier, taxpayers themselves may be discouraged from paying their taxes in cash, if they are able to reduce their tax burden by delaying payment until the end of the year, and by misreporting or mispricing their claims on the government.

- **Progressive demonetization of the economy**. Because mutual settlements do not involve cash transactions, they discourage efficiency in cash and expenditure management.[47] In the real economy, the volume of transactions in cash is reduced as a result of the extensive use of netting operations.

- **The extensive use of netting operations also distorts market incentives and reduces the efficiency of tax policy**. Among other things, tax policy aims at creating efficiency incentives in the production and consumption of goods and services. If tax wedges are not operative due to mutual settlements, tax instruments may no longer contribute to fostering efficiency in the allocation of resources in the economy. These settlements also distort the evaluation of after-tax profitability and cost-benefit analysis in the private sector, and discourage private investment. If the mutual settlement transactions are conducted at prices that depart from market levels or are below production costs or are conducted in inflated volumes, they may

[47] This is also true in the case of in-kind collections and pension payments. In most cases, revenues and outlays are recorded at market prices, but cash is not used in these transactions.

discourage enterprise restructuring and investment. In the case of barter operations, if firms are able to pay Social Fund contributions with goods that they could not otherwise sell, then the process extends unprofitable, unwanted production.

- **Netting operations may decapitalize Moldovan enterprises and exacerbate the accumulation of external payment arrears and/or barter operations in foreign trade.** Netting operations reduce the cash flow of enterprises that provide goods and services to the state. The fiscal authorities may regard state obligations to suppliers as having been "cleared" via netting operations, but suppliers may be left without insufficient funds to pay their own obligations. In the case of goods that are procured from aboard and supplied to the government, netting operations may leave the local enterprise with a clean tax bill, but with insufficient liquidity to pay foreign suppliers. This is especially true of Moldovan energy companies. This problem was exacerbated prior to the most recent energy tariff adjustments by a system of cross-subsidies that saw budgetary organizations paying up to 10 times the prices paid by households. The state was encouraged to apply penalties to late payments to the budget by energy companies and to net these payments against its own huge obligations for energy consumption. Yet, with over-consumption by households at artificially low prices, costs were not covered, and the energy companies were left with insufficient revenues to pay Transnistrian, Ukrainian, and Russian energy suppliers, even with collection rates of 100 percent.

- **Because Moldova is a net importer of energy, the energy sector is forced to accumulate external payment arrears and/or resort to barter transactions with energy exporters.** The accumulation of external payment arrears aggravates balance of payments problems and endangers the country's external solvency. In addition, barter transactions underestimate foreign trade volumes. Because foreign trade flows are not determined through the price system in the case of barter transactions, these transactions create disincentives for boosting international competitiveness, diversifying exports, and searching for new export markets.

97. Netting operations are ultimately permitted by large quasi-fiscal deficits encompassing the energy sector and foreign energy suppliers that are willing to tolerate accumulation on tens of millions of dollars of energy arrears, perhaps vastly overestimated to conceal theft or fraud or to exchange at a later date for other assets. The solution is to make transparent these netting operations and to work to make the budget more realistic by cutting expenditures or raising revenues. As noted in the fiscal section, the Moldovan authorities seek nominal cuts in expenditures in order to reduce the pressures for a continuation of netting operations.

V. PROGRESS IN RESTRUCTURING AGRICULTURE PRODUCTION AND LAND REFORM[48]

A. Introduction

98. Over the past three-and-a-half years, the Moldovan government has pursued a progressively intensive program to break up Soviet-era collective and state farms, distribute agriculture land and farm property and provide formal titles to the land. The program, known in Moldova as the "National Land Program", is unique among countries of the CIS in its provision of legal, registered individual land titles to specifically surveyed land plots. Other countries of the region have either opted for collective land holdings by cooperatives, joint stock companies formed from former collective farms, or are only now beginning preparations to embark on land privatization.[49] Also unique is a recently passed law which restructures and/or writes off the debts of collective farms to allow for the distribution of farm property. The National Land Program has received significant technical and financial support from the U.S. government, and benchmarks for project implementation have been conditional performance targets for both IMF and World Bank lending. In addition, the World Bank is also providing funding for the development of the national cadastre agency.[50]

99. The National Land Program has significant consequences for the agriculture sector, which comprises approximately one quarter of Moldova's GDP and for the key agro-processing sector, which amount to an additional twenty percent. The division of huge collective farms into small-holdings has not been without controversy and opposition. Questions such as addressing the substantial debts of the collective and state farms have proven difficult and time-consuming to resolve. There has been significant local suspicion that small farms will not have sufficient economies of scale and will leave Moldova without export crops and small land holders will revert to production for self-consumption or for raising livestock. These views frequently do not take into account the inefficiencies of the former collective and state farms and the subsidies required to maintain them.

100. The National Land Program has gathered significant momentum and political support as a growing number of small farmers received land titles. Indeed, receipt of titles by small farmers in two initial pilot stages led members of other farms to demand to be included in the program. The program is scheduled to be completed at the end of 2000, with 961 former state and collective farms likely to be broken up and the land property titled to new owners. Eight hundred and ninety seven farms have either completed the project or are presently undergoing breakup and privatization. While the land reform process has received considerable attention during the past

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[48] Prepared by Mark Horton, IMF Resident Representative.

[49] As elsewhere in the former Soviet Union, the issue of restitution of property to former owners has not been raised.

[50] The national cadastre is a centralized system of land registry.

three years in Moldova, a number of key issues remain. These include improved information and extension services, the development of credit markets, redevelopment of the rural infrastructure, insufficient investment, and the development of the land market.

B. Initial Conditions

101. At the time of independence in 1991, Moldova's key agriculture sector was comprised of nearly one thousand state and collective farms, which produced grains, fruit and vegetables, sugar, tobacco and wine grapes for a huge, closed and non-competitive market. Production was highly mechanized and energy intensive, and the liberalization of energy prices, combined with the introduction of high quality, low cost competition from the west in Moldova's major markets in Russia, Ukraine and Belarus had a tremendous negative impact on the sector. The World Bank estimates that Moldovan agricultural output declined by an average of nearly 8 percent per year during 1987-1997. Direct and indirect subsidies to the sector persisted, especially during 1993-1996, when Agrarian-dominated governments and parliaments were in place. State and collective farms were permitted to generate massive payments arrears—eventually amounting to more than Mdl 2 billion or nearly twenty percent of GDP—to the state budget and the Social Fund, to the state fuel company, Tirex Petrol, the state fertilizer supply agency, Fertilitatea, the state grain and food storage firms, Cereale and Livada, and to the utility companies Moldenergo and Moldovagaz. Moldovan commercial banks tended to avoid the sector or ensured that their loans were collateralized by commodities that could be seized, processed and commercialized. The processing industry— comprising 16 canneries, a similar number of wineries and brandy distilleries, seven regional tobacco processing plants, a cigarette factory, and nine sugar refineries— has been plagued by energy inefficiency, high production costs, poor output quality, weak links to key product markets and reliance on barter operations. Moldovan agro-processors have survived by bartering output for energy resources and other inputs (including labor) and by pushing down procurement prices for raw materials.

102. Half of Moldova's population lives in the countryside, and more than half of rural dwellers are pensioners. This has added a significant social dimension to the problems of the agriculture sector, as pension arrears are particularly acute in rural areas. Officials are keenly aware that rural dwellers have access to garden plots and household livestock and can therefore subsist more easily without cash pension payments than urban pensioners. The National Land Program, with its emphasis on providing land titles to small farmers, is based on a number of economic and social considerations, not the least of which is a recognition that pension-aged rural dwellers need access to income from the lease or sale of their newly titled land plots. In addition, the program is based on a belief that individual farmers with clear property ownership have incentives to be better informed, to obtain higher procurement prices, and to be more efficient producers than collective structures. However, the lack of liquidity in the countryside, brought about by such factors as limited development of markets and wage and pension arrears, complicates these considerations considerably.

C. Mechanism for Break-up of the Farms Under the National Land Program

103. The National Land Program has evolved through three phases, two pilot projects and the current nation-wide effort, which now encompasses nearly nine hundred state and collective farms (out of 961 farms in total). **The first phase** began in 1996, with a pilot privatization project conducted by the Ministry of Privatization at the Mayak collective farm in the western region of Nisporeni. The Mayak farm had been included in a USAID enterprise restructuring project, but it quickly became clear to USAID advisors that the farm would not benefit from a restructuring process that emphasized preparation of a business plan and changes in operations and management, but rather would require breakup and privatization of its land and other assets. A methodology for farm breakup and privatization was devised within the existing Land Code, which dates from January 1, 1992, and from the biennial updates of the Law on Privatization. The methodology was worked out between the Ministry of Privatization and USAID technical advisors and initiated with the Mayak farm during 1996. The first land titles were distributed to ex-Mayak collective members in December 1996 by then President-elect Petru Lucinschi.

104. **The second phase** of the farm breakup and land titling process commenced in late 1996 and covered 72 additional state and collective farms in 35 of Moldova's 40 regions. The land and property of these farms were distributed among ex-collective members. Over 3,000 new farming enterprises were created. Three manuals on the process were written in preparation for a further, nation-wide extension of the National Land Program. During the second program phase, nine regional teams and a handful of independent, newly formed Moldovan surveying firms assisted over 70 thousand people receive title to land plots and 81 thousand individuals receive title to farm property.[51] In addition, another 7 thousand small farmers who had left collective farms prior to their formal breakup also received legal land title certificates or property.

105. The breakup and privatization methodology was refined to involve some 100 steps, covering 12 major stages, which farms undergoing restructuring must carry out under a time-bound contract with the Ministry of Privatization. The stages of breakup and privatization include:

- authorization by a general meeting of the collective farm members, where a 50 percent vote in favor of privatization is required (75 percent in the case of farms having been converted into joint stock companies);
- preparation of an inventory of assets and land to be privatized;

[51] The nine regional "Farm Privatization and Reorganization Centers" bring together more than 250 advisors, who conduct seminars to explain the steps of privatization and hold meetings with farm members to explain their rights, responsibilities and options. Nearly 6 thousand formal seminars have been held for the farms and more than 45 thousand persons have engaged in individual consultations since the start of the National Land Program.

- valuation of the assets;
- preparation of a list of eligible farm members to receive assets and land;
- conducting of tenders to distribute the land and property;
- surveying and mapping of the land and transfer of property (e.g., re-registration of farm vehicles); and
- preparation, distribution and registration of land titles.

106. Land is provided in equal shares to all farm members who worked as of January 1, 1992, or to inheritors of deceased farm members who were working as of that date. The land shares have averaged approximately 1.5 hectares per share. One point of controversy is that land has not been provided automatically to social sector workers (teachers, doctors, nurses, etc.) on the former collective farms; farms may elect to give half-shares to social sphere workers, but most farms have not, and there have been claims of unfair treatment. The land is specifically distributed according to "land tenders." The tendering process is a rather lengthy and complicated process of division of three types of land—arable farm land, vineyards, and orchards—among farm members with land shares.[52] The land holdings of the former state and collective farms tend to be broken up into integral fields, for example, bordered by a row of trees or a road, and farm members have tended to group together to "bid" on a particular field. These farm members may have leasing arrangements among themselves prior to the tender with a clear leader-organizer or else may represent a group of members of a former work collective or an extended family. The nine USAID-supported regional centers provide advice and aid in this allocation process. Prior to the land tender, explicit mechanisms for resolving disputes among groups competing for the same land plots are required to be in place; these have mainly involved resolutions by lottery. Once the tender is completed, the winners must agree on the placement of specific plots within a successfully obtained larger field. The placement of plots tends to be according to the length of leasing arrangements (short-term lessors are on the "outside" of the core of the field), the age of farm members (pensioners on the outside) or by family relations (grouped together). The final distribution is approved by the land commission of the farm and the plots are surveyed, mapped and titled, with help from USAID technical advisors.

107. Property is distributed simultaneously, again according to shares, which are not equal for all farm members, as with land, but are allocated instead by length of farm service and salary. Unlike with land, social sector workers are eligible to receive property shares. At property tenders, groups, of farms members once again pool their property shares and bid in small groups for machinery, farm structures such as sheds or storage facilities, and other farm property. In

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[52] One peculiarity in Moldova is that the trees and vines on orchards and vineyards are regarded as property apart from the land on which they are growing and are therefore distributed separately.

order to receive property, the groups must set up legal entities. The farm equipment tendered in Moldova tends to be quite antiquated and exhausted, with tractors averaging 15 years of age. The machinery is energy intensive and of poor technical capability, with enormous losses in the field.[53] Spare parts are not readily available and tend to be taken from other, similar machinery. Observers complain that much of the best equipment was stolen or sold in the years immediately after independence; much of what remains is simply worthless or cost ineffective, and field work is increasing performed by hand or by horses.

108. The National Land Program has encouraged the emergence of "leaders" who re-amalgamate land plots through leasing arrangements with other ex-farm members. The "leader-entrepreneur" concept is meant to encourage individuals with skills and interest in running larger farms to lease land parcels from other land-holders. This offers the possibility of rental income to those who are not interested or capable of farming, especially pensioners. Land parcels may also be purchased, although the development of a fully functioning land market has been slow, due to the preparation of the legislative basis for land transactions and also due to the lack of desire of former collective farm members to sell immediately their just-obtained land plots. In the first two years of operation since the breakup and privatization of the first pilot farm, Mayak, seven leaders initially emerged with amalgamated land and property among some 1,400 people receiving land shares, and two additional leaders bought only property. Two hundred persons farmed as individuals. In 1999, an additional 5 leaders have emerged to lease land, while the original leaders generally have scaled back the number of hectares under lease. Leasing arrangements tend to be on the basis of in-kind payment of 10-20 percent of the yield of the land plot, and most are just one year in duration. Although it was feared by some that the breakup and privatization process would favor former collective farm directors, this has not been the case, as new leaders on the 73 farms from the first two pilot phases have come from a variety of professions, the most common being former "brigade leaders," who are estimated to comprise 22 percent of farm leaders, with former directors comprising 17 percent, individual farmers 11 percent and agronomists and engineers 6 percent each. The 72 farms from the second phase of the program have seen emergence of an average of approximately 5 leaders, each of whom lease 10-100 land shares (15-150 hectares). The average-sized Moldovan state and collective farm comprises 1,000 members; farms range from 200 to 4,000 members in size, with most in the range of 800-1,200 members.

109. **The third nationwide phase** of the National Land Program was launched by President Lucinschi in March 1998 at a meeting of 1,500 farm directors, mayors, and state and local administration officials. This third phase was meant to decollectivize and privatize an additional 550 state and collective farms, and the program has proved to be quite popular to prospective small farmers, who are eager to receive land titles. In turn, this has made the program popular among local politicians.[54] The U.S. government has provided additional technical assistance

[53] Custom harvesters using newer, Western equipment may receive payment in 20-30 percent of the output that is collected.

[54] It is perhaps not a coincidence that parliamentary elections were also held in March 1998.

resources to accommodate additional farms, and 824 farms have now applied to the Department of Privatization for participation in the program, bringing the total number of farms under breakup and privatization to 897. Of these 824 farms, 725 had held their general meeting, voted to privatize and signed contracts with the Department of Privatization; over 650 farms have completed the lists of persons entitled to land and property; and 400 farms have completed their land and property tenders. As such, in the 1999 agricultural season, some 473 farms, nearly more than half of the 961 former state and collective farms in Moldova, are now working as privately owned farms.[55] National Land Program officials anticipate that the remaining 64 state and collective farms in Moldova will join the program following the recent passage of the Law on Agriculture Debt Restructuring, which provides a mechanism for debt write-off and restructuring (described below), which is only available to farms participating in the National Land Program. Farms in the ethnic Turkish, southern Gagauzia region have not so far participated in the National Land Program, while a small number of farms straddling the Transnistrian administrative border have also not so far been involved.

110. Regarding provision of land titles, as of July 1, 1999, approximately 500 thousand titles have been provided to nearly 200 thousand ex-state and collective farm members.[56] With the conclusion of the National Land Program, approximately one million farmers are expected to receive land and property. Farmers have begun to sell their land plots to others, and the use of plots as collateral for bank loans has also commenced, although progress in the development of land and credit markets on the basis of the titles has been very slow due to delays in introducing required legislative changes, passivity, lack of competition, the risk aversion of banks, and lack of economic growth and liquidity in the countryside.

111. Anecdotal evidence suggests that private farmer-leaders are responsive to changing conditions by changing crops, with many turning from grains to vegetables and fruits which may be sold in markets in regional towns or in Chişinău. Due to the prevalence of barter operations among agro-processors, it appears that private farmers prefer to sell either directly to retail consumers in regional markets or else to middlemen, including some from neighboring countries. National Land Program officials suggest that a large number of individual small holders are mainly farming for self-consumption.

112. The weak development of wholesale commodity markets for agricultural produce serves as an obstacle to more rapid development. Wholesale storage facilities in the countryside are not

[55] This figure includes the 400 farms that have completed land and property distribution under the National Land Program in 1999 and the 73 farms that were privatized in 1996-98 under the first two pilot programs.

[56] In order to promote flexibility, separate titles are issued for the three types of land—arable land, vineyards or orchards.

well developed and have tended to remain in state hands. As noted below, agro-processors have not moved to contractual relationships with farmers.

D. Rural Savings and Credit Associations

113. Development of credit markets for lending to the agriculture sector has been slow, as the former system of directed loans to collective farms for purchase of inputs has not yet been fully replaced with a market-based system of credit allocation. Banks have found that their former collective farm clients have been broken up and restructured in the National Land Program, and have found working with hundreds of thousands of peasant farmers to be quite difficult and uncertain. However, during 1997-1999, with the support of the World Bank and other donor organizations, 161 rural "savings and credit associations" (SCAs) have been formed at the village level. These credit union-type institutions provide micro-credits to individual member-farmers. The number of SCAs has increased from 11 in a pilot phase in 1997, to 54 in 1998, and to 161 at present.[57]

114. Repayment rates for the small credits extended by the SCAs have been very high, nearly 100 percent with very few past due loans, and supplemental loans have been provided to the SCAs for on-lending by the World Bank and by two local commercial banks, one of which received a guarantee from the Soros Foundation. The World Bank has a US$5 million IDA credit, which provides funds through a non-governmental coordinating agency, the Rural Finance Corporation (RFC).[58] Supplemental loans amounted to Mdl 840 thousand in 1997, Mdl 5.6 million in 1998 and Mdl 14.4 million in 1999. Leu interest rates on supplemental loans are close to the market and approximately 24-25 percent per annum; SCAs add 2-6 percentage points to cover risk, administrative expenditures and to increase capitalization via retained earnings. In some cases, the RFC and one local commercial bank have extended the term of their loans to SCAs to three years.

115. Savings and credit associations are formed as a non-profit, non-governmental institutions, with members paying dues and receiving one vote in the SCA general meeting. Members must invest the equivalent of two monthly minimum wages or 36 lei to join an SCA. With training from the RFC and other micro-financing NGOs, the SCAs use techniques of mutual lending and village social pressure to bring about high rates of loan repayment. [59] SCA loans to members are provided without collateral and range from 200 lei to 10 thousand lei and average approximately

[57] Moldova has approximately 1,600 villages.

[58] The World bank funds are on-lent from the Moldovan Ministry of Finance to the RFC in lei.The RFC is eighty-five percent owned by the SCAs themselves.

[59] Activities of the RFC and other Moldovan micro-credit NGOs have received the support of the World Bank, the German GTZ agency, the U.K. Know How Fund, the Dutch government, the Soros Foundation, EU-TACIS and USAID.

2,000 lei. Funds are used to prepare land for spring planting, to purchase inputs, undertake fall harvest operations, and to purchase livestock or small equipment.

116. SCAs generally start with 30-50 members in their first year of development and have grown rapidly, but selectively, given the need for positive peer group dynamics. In three Moldovan villages, there are multiple SCAs. A general assembly meeting elects a minimum 5-member supervisory council, a chairman and an internal audit committee. By custom, council members are unpaid, so that more funds can be provided in loans to farmer-members. SCA profits are not taxed, and the SCAs cannot pay dividends to members until reserve funds are accumulated. The SCAs are licensed and overseen by a national supervisory board, which receives and assesses financial reports from the SCAs. The supervisors uncovered one case of embezzlement in an SCA near Chişinău, and the chairman was removed, prosecuted and imprisoned.

117. With success, the earliest SCAs have grown in share capital and in lending, and total outstanding loans at present amount to Mdl 16 million. Still, this is less than one-tenth of one percent of GDP in a sector that accounts directly and indirectly for nearly one-half of output in Moldova. Some links have developed between foreign investors in the agriculture sector and rural SCAs. For example, when American investors in a milk processing facility in the south central city of Hincesti encountered difficulty in finding sufficient milk to procure, the RFC worked with residents of nearby villages to establish SCAs and to provide loans for purchase of dairy cattle and improved feed. Twenty four SCAs have been formed to work with the milk processing facility, and small farmers now receive 1 lei per litre of milk in cash or roughly 400-450 lei per month, in comparison with an average pension of 90 lei per month that has not been paid on a timely basis for the past several years. RFC officials express hope that similar arrangements with a major German investor in the Moldovan sugar industry will be similarly successful. Still, the lack of markets and associated infrastructure for farmers' inputs and crops is acute; the absence of adequate regional storage facilities for crops is a further complication.

E. Agriculture Debt Issues

118. One of the major obstacles to collective farm privatization has been dealing with the huge debts amassed by the farms, estimated to amount to Mdl 2 billion, as of January 1, 1999 (see Table 25).

Table 25. Estimate of Debts of Moldovan State and Collective Farms
(As of January 1, 1999)

Creditor	Amount (in millions of lei)
State and local budgets	600
Social Fund	205
Employees	200
Net credits of the Ministry of Finance (including government guarantees)	250
Banks	15
Other private credits (Agriculture inputs, storage facilities, etc.)	735
Total	2,005

Source: National Land Program

119. The Moldovan authorities have attempted to address the debt problem with a new Law on Farm Debt Restructuring, which was drafted with support from USAID and passed by parliament in June 1999. The new law attempts to balance a number of considerations, including:

- a desire to transfer farming assets, such as tractors, seed drills, and the like, as well as orchards and vineyards and permanent irrigation structures to new private farmers in an expeditious manner and unencumbered by the need to service massive debts;

- a recognition that a considerable portion of the debt was incurred as a result of various state policies, for example, by ordering input suppliers to provide diesel fuel or agricultural chemicals to the farms or else were incurred due to the inept or fraudulent practices of farm managers;

- there was therefore a desire to preserve some equity in this transfer, as well as to promote future efficiency in production of small holders, by allowing individual, ex-collective farm members to receive farming assets, rather than to see them transferred to creditors in a liquidation;

- a belief that the liquidation of farm property involving nearly 900 state and collective farms and hundreds, if not thousands, of private creditors would be cumbersome and time-consuming, and likely even corrupt and chaotic; and finally,

- an attempt to address the moral hazard problem of writing down or writing off collective farm debts by linking debt forgiveness to farm breakup and privatization.

120. Under the Law on Farm Debt Restructuring, debts older than three years will be automatically written off without recourse by creditors, while most of the remaining debts will be settled through a process of offsetting and compensation. Debts that remain after the process will be eligible to be compensated by non-tradable tax credits capped at a relatively modest total annual amount. At the farm level, the process commences with a general meeting at which a

decision supporting the liquidation of the farm must be made, followed by a public announcement of the farm's liquidation. Assets used as collateral for bank credits will be transferred to the banks, and the farms' debts in salary arrears will be written off; this process should cover approximately Mdl 215 million, out of estimated total of Mdl 2,005 million. In addition to the older debts, debts that are not acknowledged within one month of the public announcement will be automatically written off without recourse. The National Land Program estimates that this should lead to the writing off of another Mdl 380 million, leaving Mdl 1,410 million.

121. What follows is a swapping of the farms' social assets (e.g., roads, schools) and certain other assets (e.g., shares held by the collective farms in formerly affiliated processing enterprises, grain and oil mills, receivables, inventories, and some agro-industrial facilities), for the farm debts to the state, local authorities and the Social Fund. The National Land Program has estimated that approximately Mdl 1,200 million worth of debts will be offset in such a way. The state will then absorb Mdl 605 million worth of debt of the farms to other creditors; some of this debt will be removed by netting against other debts of these farm creditors to the state.[60] Tax credits will be provided to private creditors for the remainder. The National Land Program estimates that approximately Mdl 280 million worth of farm debt to private creditors will be offset, while tax credits will be offered for the remaining Mdl 325 million. The tax credits will be provided in annual equal installments of Mdl 65 million lei during 2000-2004; they will be non-transferable and will have no carry-forward provisions.

122. To address the moral hazard issue, the farms undergoing the debt restructuring process will also undergo the property and land distribution process described earlier and be formally dissolved and stricken from the state registry. During the period of Agrarian domination of parliament and government in 1994-1998, there were repeated calls for a write-off of collective farm debt, usually associated with supposed weather-related crises. These calls were unheeded and opposed by the Fund and the Bank staffs because they would have left state and collective farms unreformed and would have represented a severe moral hazard. The 73 farms that were involved in the first two phases of the Land Program were less heavily indebted, which made it possible to distribute farm machinery, orchards and vineyards, and other property to farm members. Debts of these farms were "parked" in successor enterprises with sufficient compensating nominal assets, such as storage buildings or other properties. The debts of the current round of farms under the breakup and privatization process is far in excess of what could be compensated with such "non-productive" assets, and settlement would have required massive allocation of more "productive" assets, such as machinery, orchards and vineyards. The farms undergoing the debt restructuring process will not be able to operate as successor enterprises because they will retain no assets as these will have been transferred in full either to small holders or to creditors. To protect creditors who object to the debt rationalization scheme, an alternative

[60] For example, where a fuel company is owed by a collective farm for sale of diesel fuel, and the fuel company also owes the state budget for non-payment of excise taxes or VAT.

process for addressing debt of individual farms is provided for by the law, involving a formal court bankruptcy and liquidation process.

F. Outstanding Issues and Prospects

123. Even with the successful breakup and privatization of the former state and collective farms, a number of critical problems will remain for the Moldovan agriculture sector, including provision of inputs, equipment, extension services and credit, availability of markets, investment in production of agricultural commodities, and the availability of materials and processing and infrastructure.

124. A number of the problems have roots in an inefficient agricultural processing industry, which comprises 16 canneries producing fruit juice—mainly concentrated apple juice for export—and canned fruits and vegetables, as well as grain and oil mills, wineries, sugar refineries, and tobacco processors. The TACIS technical assistance program of the European Union concluded a study of the cannery sector in September 1998 and found firms to be characterized by antiquated, energy intensive equipment, excess production capacity, and poor procurement and marketing operations. [61] In spite of seemingly low costs due to low procurement prices for raw materials and low sectoral wages, Moldovan food processors are plagued by poor quality production and high costs and prices, resulting from low yields in the production of commodities, low processor efficiency, energy intensive production processes, weak financial and quality management, extensive down times and substantial barter operations.

125. The TACIS study found that fruit and vegetables are processed according to what commodities are available in the local market, rather than according to market demand. The canneries do not operate on a contractual basis either with clients or with suppliers of commodity raw materials. Without clearer signals from established markets, commodity production is irregular and not to international quality requirements. Neither producers nor processors have adequate information or analysis of key markets—Germany and Russia—or of key competitors—Polish, Turkish and German. The result is poor planning and production decisions and insufficient flexibility. Part of this is due to the significant sales of Moldovan products in the CIS market through barter operations involving traders associated with the Moldovagaz and Moldenergo utility companies. The TACIS study estimates that 80 percent of all Moldovan canned products are sold by Moldovagaz and Moldenergo in barter operations. Such operations provide the canneries with little or no information about demand in the key CIS market and little incentive (or liquidity) to cut energy costs or develop better input supply or production.

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[61] "Review of the fruit and vegetables processing sector and recommendations for importing its current market performances", Mr. Giuseppe Amoriggi, TACIS Project "Imported Marketing of Agricultural Products in Moldova," TACIS/FD/MOL 9501, September 1998.

126. The fruit juice processors benefited from high world prices for concentrated apple juice during 1994-1997, but a thirty percent decline in prices from late 1997 has put tremendous pressures on the industry. Local processors made poor investment decisions during the period of high prices, purchasing expensive packaging lines which are now substantially underutilized. The TACIS report was issued in the immediate wake of the Russian financial crisis, which has had further, significant negative impacts on Moldova's exports. The report indicated that the structure and nature of Moldovan agricultural production and processing do not lend themselves to a quick re-orientation to low cost, high quality exports to more competitive western markets.

127. A recent investment in the important sugar sector by a major foreign investor may provide a model for addressing problems in Moldovan agriculture and agro-processing. Europe's leading sugar company, Sudzucker, has purchased parcels of shares in five Moldovan sugar refineries with the intention to convert sugar production and procurement to a cash basis and to keep production costs low by increasing beet yields. In the past, and in the case of other sugar refineries in Moldova, farmers have been provided with "technical credits" in the form of diesel fuel and agricultural chemicals which are then repaid via delivery of sugar beets. The farmers have frequently suffered from illiquidity because they have been forced to wait until the end of the processing season to be paid by the refineries and then may be paid in refined sugar or not at all. Sudzucker is attempting to put all of these transactions on a cash basis. Similar problems exist in the cases of other major export crops, including grapes for wine production and tobacco. Production and sale of wine and cigarettes suffer from problems similar to the food processing industry—high production costs, poor quality output, and weak links to key markets in Europe and the CIS.

128. The situation has become acute, as little rent has returned to agriculture producers for investment in vineyards and orchards or purchase of farm machinery and equipment. Use of expensive bank credits in an environment of barter operations and non-payments does not appear to be rational, and farmers have switched from tobacco and sugar beet production to production of consumption crops, such as corn or fresh vegetables and fruit to be sold in local markets, or else have simply allowed Moldova's exceptional farmland to remain fallow.

129. The years since independence have bought considerable changes to Moldova's critical agriculture sector, although these have been exceedingly slow and far from complete. Moldova's ambitious land reform program is noteworthy in its provision of individual land titles and transfer of collective farm property to small holders, but considerable challenges remain for the sector to become profitable target of investor interest and a source of economic growth.

VI. FOREIGN INVESTMENT IN MOLDOVA[62]

130. Direct foreign investment in Moldova amounted to approximately US$70-80 million per year during 1997-1998, a significant increase over the level of investment during the first years of independence.[63] While Moldova has lagged somewhat behind other countries in central and eastern Europe in terms of total cumulative direct investment flows and FDI per capita, setting aside the Baltic countries and former Soviet republics that are rich in mineral resources, such as Azerbaijan, Kazakstan and Turkmenistan, Moldova has fared reasonably well in comparison with other BRO countries and Romania.

Table 26. Direct Foreign investment in Moldova, 1994-1998
(in millions of U.S. dollars)

	1994	1995	1996	1997	1998
Annual	11.6	23.2	45.1	71	86
Cumulative	11.6	34.8	79.9	150.9	236.9

Source: National Bank of Moldova and Fund staff estimates

131. The major sectors receiving foreign investment have been the banking and energy sectors, agro-processing and food products, and telecommunications. Among the largest foreign investors in Moldova are the Russian firms Gazprom and Lukoil, as well as France Telecoms Mobile International, the U.S. government-financed Western NIS Enterprise Fund, which has holdings in a glass bottle facility and a beverage company, the German sugar producer Sudzucker, and Coca-Cola. A number of Moldovan banks have foreign ownership, including from offshore banking centers, with the largest investors in the banking sector being the EBRD, the Commercial Bank of Greece, the Commercial Bank of Romania and Bankcoop of Romania, and Lukoil. The list of the largest foreign investors in Moldova is dominated by investors from offshore zones, suggesting re-investment from abroad by local businessmen, perhaps to receive benefits under Moldova's law on foreign investment.

[62] Prepared by Mark Horton, IMF Resident Representative.

[63] Relatively reliable data on foreign investment are available only from 1994. According to NBM officials, assessment of foreign investment during 1992-1993 is made difficult by conditions of hyperinflation and use of Soviet-era currency, weak customs and banking system control, and civil conflict in the eastern Transnistrian region of Moldova.

132. The Foreign Investment Advisory Service (FIAS) of the World Bank and IFC recently completed a diagnostic review of the environment for foreign investment in Moldova. The report suggested that Moldova's potential for attracting foreign investment lies in agro-processing and metal industries, as well as light manufacturing and services, given Moldova's relatively low cost, high skilled labor force.

133. The FIAS report lists a number of key factors in any country's investment environment that may constrain foreign investment interest, including political and economic uncertainty, distorted incentive policies (taxation, foreign exchange, subsidies), inadequate legal and judicial frameworks, distorted or institutionally weak financial systems, poor access to land and inadequate provision of public goods and services. Moldova's uneven track record of implementation of structural and economic reforms has meant that progress in most of these areas has been limited, which has in turn undoubtedly dampened foreign investor interest in the country.

134. Other findings of the FIAS report included the following:

- A number of areas of the foreign investment environment in Moldova remain extremely bureaucratic and non-transparent. For example, tax policies impacting foreign investors are contained in three separate items of legislation, the Fiscal Code, the annual Law on the Budget and in the Foreign Investment Law, which have been contradictory. The report notes that during 1998, there were at least four rounds of changes of the rules governing incentives for foreign investors. Fiscal incentives have tended to employ distortionary tax holidays.

- Moldova's customs regulations and import certification requirements are complicated, costly and frequently changing, while exporters face a complex set of procedures to register flows of currency receipts. The process for registration and licensing of a business in Moldova is especially cumbersome, bureaucratic, time consuming and costly, requiring submission of more than twenty documents and a host of checks and stamps. Ten government entities are involved with the basic task of registration and there are no less than 27 stages of approval. After registration, investors may be required to obtain licenses from line ministries and local government agencies (utilities, architecture, environment, roads, health). Licenses must be renewed annually, and there are frequent inspections of licenses by government agencies.

- Moldova's Law on Foreign Investments provides foreign investors a number of incentives, including significant tax benefits, that are not provided to local investors, costing the budget revenues and perhaps contributing to the phenomenon of substantial investment from off-shore zones.

- Although there have been positive developments in respect of land reform, secure access and ownership to land by foreign commercial entities remains complicated and uncertain. Tracts of land are not available for industrial development.

- Visa requirements and procedures to obtain work and residency permits are also complicated and cumbersome.

- Moldova would benefit from using investment mechanisms such as build-own-and-transfer and concessions for infrastructure investment.

- The are no enforcement provisions for intellectual property laws.

- Investment promotion activities are scattered and diffused among poorly funded, coordinated and staffed agencies. Little attention is devoted to what FIAS regards as the most appropriate investment promotion activity for Moldova at this stage, "servicing" of existing investors, by ensuring satisfactory processing of documents and provision of timely information and services.

135. The widely known, failed privatization of the tobacco sector in 1995-1996 and Moldtelecom in 1997-1998 no doubt had a dampening effect on foreign direct investment. In addition, the voucher-based mass privatization program appears to have had a negative impact on foreign investment, as voucher funds have attempted to maintain control over more attractive firms and have from time to time actively blocked foreign investor interest in the companies under their control. Moldova's bankruptcy law has been repeatedly amended and Moldovan court system is understaffed and underpaid. As such, there is not an effective and timely framework for addressing financial problems at loss-making enterprises. Finally, the usual range of services expected by foreign investors—availability of international standard airline and hotel services and the presence of major international banking institutions—have been slow to develop, due to a small and, apparently, informally restricted market.

136. A number of successful, medium-sized privatizations in 1998, however, have brought additional foreign investors in pharmaceutical production, textiles and leather production, and cement. The government's economic program targets privatization of a number of key sectors and companies, including Moldtelecom, the distribution networks and electricity generation stations of the former Moldenergo electric utility, the state fuels company Tirex-Petrol, and a number of state owned wineries, distilleries and tobacco processing units. Successful conclusion of these transactions should bring additional foreign direct investment.

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Table 27. Moldova: Gross Domestic Product by Expenditure 1994-98 1/

(In millions of lei at current prices)

	1994	1995	1996	1997	1998 (Preliminary)
Gross Domestic Product, official	4,737	6,480	7,798	8,917	8,804
Final consumption expenditure	4,135	5,742	7,842	9,434	9,621
Private	2,994	4,215	5,813	7,068	7,168
Public	1,142	1,527	2,029	2,366	2,453
Gross capital formation	1,738	2,286	2,507	2,753	3,034
Fixed capital	540	749	1,882	2,314	2,584
Stockbuilding	1,198	1,537	625	439	450
Net exports	-368	-483	-1,520	-2,069	-2,536
Additional staff adjustment for shadow economy 2/	768	1,065	1,030	1,201	1,315
Gross Domestic Product, adjusted	5,505	7,545	8,828	10,118	10,119
Memorandum items:					
	(Percentage change from previous period)				
Real GDP	-31.1	-1.4	-7.8	1.3	-8.6
Implicit GDP deflator	152.8	38.2	28.1	13.0	7.4

Source: Information provided by the Moldovan authorities; and Fund staff estimates.

1/ Excludes Transnistria.

2/ See Annex I of the 1998 RED for Moldova (SM/98/71).

Table 28. Moldova: GDP by Sector, 1994-98 1/

(In millions of lei at current prices)

	1994	1995	1996	1997	1998
Value added	4,425.2	5,744.1	6,825.9	7,664.7	7,434.9
Agriculture & fishing	1,292.8	1,896.8	2,143.1	2,315.2	2,148.2
Processing industry	1,354.8	1,476.7	1,639.2	1,635.0	1,747.2
Gas, electricity and water	117.7	133.0	146.9	149.0	201.1
Construction	213.4	228.2	297.8	421.9	382.2
Repairs and personal services	367.1	517.8	649.4	731.3	714.3
Transport, warehouses	192.8	225.8	288.7	366.4	391.5
Financial services	244.2	237.9	515.2	530.6	600.0
Education	219.1	330.7	447.9	562.0	402.6
Public health and social assistance	288.0	467.9	548.9	647.9	492.5
Other	135.3	229.3	148.8	305.4	355.3
plus: Taxes on production and imports	485.4	823.1	1,075.1	1,366.0	1,447.0
less: Subsidies	-173.8	-87.5	-103.4	-113.8	-78.2
GDP (unadjusted)	4,736.8	6,479.7	7,797.6	8,916.9	8,803.7

Source: Information provided by the Moldovan authorities.

1/ Excludes Transnistria and additional staff adjustment for shadow economy (see Table 27).

Table 29. Moldova: Agricultural Production by Product, 1994-98 1/
(In thousands of metric tons)

	1994	1995	1996	1996 2/	1997 2/	1998 2/
Grain 1/	1,684	2,612	1,978	1,793	3,112	2,424
Wheat (winter)	659	1,277	784	674	1,153	951
Rye	3	5	8	6	6	4
Corn	629	979	1,037	989	1,717	1,230
Barley (winter)	130	206	85	72	154	93
Oats	7	9	4	3	8	9
Oilseeds	153	234	318	279	178	205
Sunflower seeds	149	231	316	277	175	199
Soybeans	4	3	2	2	3	6
Sugarbeets	1,527	2,084	1,917	1,807	1,749	1,455
Potatoes	475	401	383	343	391	412
Pulses	70	56	32	29	68	71
Vegetables	599	607	394	319	355	500
Grapes	670	876	789	767	301	339
Other (fruits and berries)	665	610	573	521	947	388
Tobacco	42	27	19	19	24	25

Source: Data provided by the Moldovan authorities.

1/ Clean weight.
2/ Excludes Transnistria.

Table 30. Moldova: Animal Husbandry, 1994-98

	1994	1995	1996 1/	1997 1/	1998 1/
			(In thousands)		
Livestock inventory					
Cows	399	381	319	291	286
Pigs	1,061	1,015	866	724	860
Sheep	1,411	1,320	1,247	1,115	1,026
Goats	96	103	97	94	95
Horses	59	61	59	61	64
Poultry	14,415	14,740	11,423	11,613	12,088
			(In thousands of metric tons)		
Production					
Meat 2/	153	137	115	112	103
Beef	62	47	35	31	24
Pork	61	60	57	59	58
Lamb	5	5	4	4	4
Poultry	24	24	18	17	16
Other	1	1	1	1	1
Milk	909	837	682	620	610
Eggs (millions)	515	563	526	512	539
Wool	2,851	2,924	2,808	2,711	2,433
Productivity measures 3/					
Eggs per laying hen	152	181	202	218	223
Milk per cow (kilograms)	2,245	1,984	2,002	1,687	2,001

Source: Data provided by the Moldovan authorities.

1/ Excluding Transnistria.
2/ Slaughter weight.
3/ Productivity measures exclude production on garden plots.

Table 31. Moldova: Agricultural and Industrial Production Indices, 1994-98
(Percentage change from same period of the previous year; period averages)

	Agricultural production	Industrial production
1994	-24.3	-27.7
1995	3.7	-3.9
1996	-11.9	-6.5
1997	11.4	0.0
1998	-11.0	-11.0
1994 I	5.4	-28.0
II	-17.6	-32.5
II	-15.0	-33.4
IV	-42.1	-26.5
1995 I	-13.0	-25.6
II	11.0	-13.8
II	-12.3	2.1
IV	33.8	6.1
1996 I	0.4	4.5
II	-1.0	13.5
II	-14.4	-18.2
IV	-14.0	-17.0
1997 I	-9.5	-14.9
II	-11.1	-8.3
III	16.2	6.1
IV	16.5	3.8
1998		
I	-4.2	2.3
II	0.7	-1.3
III	-3.1	-23.1
IV	-31.0	-30.8

Source: Information provided by the Moldovan authorities, excluding Transnistria.

Table 32. Moldova: Industrial Production by Industry, 1994-98 1/
(In percent change from the previous year)

	1994	1995	1996	1997	1998
All industries	-27.7	-3.9	-6.5	-3.2	-11.0
Heavy industry	-27.2	-10.6	-4.1	-8.1	-10.3
Fuel and energy	-17.5	-6.4	5.6	-0.7	-8.7
Machinery and metalworking	-36.3	-10.6	-19.8	-20.3	-16.9
Petrochemical	-35.6	-63.6	5.6	-27.7	-4.9
Forestry/wood	-31.3	-13.8	-21.2	-5.1	-23.5
Construction materials	-21.8	-4.8	26.8	14.8	-16.9
Other	-15.5	-11.4	-5.6	-12.5	5.9
Light industry	-48.5	-31.1	-0.2	-4.8	-16.5
Textiles	-41.8	-48.8	-0.1	-20.3	-24.8
Clothing	-45.7	-10.2	6.2	-4.8	9.1
Leather and shoes	-62.0	-12.2	-9.0	10.9	-34.5
Food industry	-24.4	4.4	-8.1	-0.7	-17.7
Food processing	-21.7	7.3	-9.0	4.4	-19.6
Meat and dairy	-38.2	-13.8	-5.6	-18.8	-3.3
Fish	-32.9	-20.4	137.0	...	...
Other	-23.0	2.9	5.2	-10.6	-28.8

Source: Data provided by the Moldovan authorities.

1/ Excluding Transnistria.

Table 33. Moldova: Unemployment, Unpaid Leave, and Part-time Employment, 1994-98
(In thousands; excludes Transnistria)

End of Period		Unemployed	Of which receiving benefit	Vacancies	Official Unemployment rate (Percent)	Workers on unpaid leave	Workers on Part-time Employment
1994		20.6	6.3	6.5	1.1	220.3	34.4
1995		24.5	8.0	5.5	1.4	224.0	43.5
1996		23.4	7.0	6.6	1.5	197.8	35.5
1997		28.0	7.5	7.5	1.5	171.3	34.8
1998		32.0	8.1	6.4	2.0	146.4	41.0
1996	I	27.1	7.7	6.5	1.5	124.4	39.7
	II	26.1	7.3	7.2	1.5	142.0	35.1
	III	26.3	7.7	7.0	1.6	165.7	36.3
	IV	23.4	7.0	6.6	1.5	197.8	35.5
1997	I	22.9	6.5	6.2	1.3	117.3	42.4
	II	22.8	5.7	6.2	1.5	131.8	37.4
	III	27.1	6.9	8.0	...	155.3	40.0
	IV	28.0	7.5	7.5	1.5	171.3	34.8
1998	I	39.1	7.7	6.4	...	82.1	30.8
	II	33.7	7.2	7.4	...	97.7	38.0
	III	33.8	7.8	6.6	...	120.9	43.1
	IV	32.0	8.1	6.4	...	146.4	41.0

Sources: State Department of Statistics; and Ministry of Labor and Social Protection.

Table 34. Moldova: Nominal Wages in Different Sectors, 1994-98 1/
(In lei/month; period average)

	1994	1995	1996	1997	1998
Total	108.4	143.2	187.1	219.8	252.4
Agriculture 2/	82.4	106.7	121.5	135.2	140.6
Forestry	90.0	120.3	...	...	...
Industry	153.0	209.7	286.5	363.2	423.5
Construction	149.7	187.5	247.7	326.5	362.4
Transport 3/	137.7	191.2	258.3	323.5	376.5
Telecommunications	145.8	190.7	...	...	...
Hotels and restaurants	...	172.2	183.5	197.9	230.2
Trade	105.1	143.2	211.5	263.1	265.7
Material and technical supplies and sales	203.3	243.2	...	...	...
Acquisitions	134.4	202.5	...	...	...
Data processing service	137.7	189.4	...	...	...
Real estate activity	...	240.8	246.8	285.3	336.3
General commercial activity for insuring market functioning	244.6	352.5	...	...	...
Geology, hydrometeorologic services and survey	110.3	167.3	...	...	...
Communal husbandry	130.6	189.0	...	...	...
Consumer services	92.8	132.8	...	...	...
Health care, physical training and social assistance	102.9	127.4	161.1	175.9	183.5
Education	83.8	108.8	156.7	170.9	183.0
Culture and art	87.9	104.6	...	...	...
Science	135.0	196.5	...	...	...
Banking, credit and insurance	299.6	494.1	687.0	823.5	1135.4
Administration	156.3	230.2	295.5	327.2	392.0

Source: State Department of Statistics.

1/ Excludes Transnistria.
2/ 1996 data includes fishery, forestry and hunting.
3/ 1996 data includes transport, warehouses, and communication.

Table 35. Moldova: Prices, 1995-99

	Consumer Prices Index					Producer Prices Index	
	Overall		Goods		Services	Index	Percent Change
	Index	Percent Change	Food	Nonfood			
1995							
January	183.3	2.9	168.8	171.0	226.6	195.3	9.6
February	187.5	2.3	174.9	172.5	230.5	203.7	4.3
March	188.8	0.7	175.7	173.4	234.4	209.6	2.9
April	189.9	0.6	176.6	173.9	238.1	212.1	1.2
May	190.7	0.4	177.1	174.6	240.5	215.5	1.6
June	191.1	0.2	176.4	174.9	246.3	218.3	1.3
July	191.5	0.2	176.1	175.6	249.0	223.8	2.5
August	191.9	0.2	175.9	176.9	249.7	233.2	4.2
September	196.8	2.6	181.5	180.0	255.7	240.9	3.3
October	202.2	2.7	187.0	183.8	264.2	254.4	5.6
November	214.3	6.0	196.3	186.4	327.3	257.4	1.2
December	220.5	2.9	200.9	189.2	353.2	261.3	1.5
1996							
January	228.2	3.5	209.1	192.6	375.4	267.5	2.4
February	233.9	2.5	214.5	197.8	380.7	276.1	3.2
March	236.5	1.1	216.0	201.4	383.0	284.9	3.2
April	239.1	1.1	218.2	203.8	388.7	288.1	1.1
May	241.0	0.8	215.8	206.4	414.0	294.7	2.3
June	241.2	0.1	214.7	207.4	417.3	300.9	2.1
July	241.5	0.1	213.8	208.7	421.0	305.1	1.4
August	240.8	-0.3	210.9	209.9	424.0	306.9	0.6
September	244.4	1.5	213.2	211.8	443.5	310.3	1.1
October	248.3	1.6	217.2	214.2	452.4	312.2	0.6
November	251.8	1.4	221.8	215.7	455.5	314.4	0.7
December	253.8	0.8	224.2	217.0	458.7	314.7	0.1
1997							
January	258.6	1.9	231.4	218.3	461.9	317.5	1.0
February	262.2	1.4	234.9	219.6	473.0	324.2	2.1
March	264.8	1.0	233.7	220.2	506.1	328.7	1.4
April	267.0	0.8	234.4	220.9	520.8	333.6	1.5
May	268.6	0.6	235.3	221.1	532.8	341.6	2.4
June	273.9	2.0	231.8	221.3	612.7	348.5	2.0
July	271.2	-1.0	225.1	222.4	619.4	349.5	0.3
August	269.0	-0.8	221.9	223.5	610.8	350.9	0.4
September	272.3	1.2	224.6	224.7	625.4	353.7	0.8
October	274.7	0.9	228.2	225.8	624.8	358.7	1.4
November	277.7	1.1	232.3	227.4	626.1	356.9	-0.5
December	281.9	1.5	238.3	228.5	629.2	358.7	0.5
1998							
January	285.6	1.3	243.8	229.9	630.4	359.8	0.3
February	286.7	0.4	244.5	230.8	633.6	365.5	1.6
March	286.4	-0.1	243.6	231.5	634.2	365.9	0.1
April	288.4	0.7	246.7	231.7	636.1	371.4	1.5
May	289.0	0.2	247.0	232.4	636.8	378.8	2.0
June	285.8	-1.1	243.3	232.6	732.3	344.7	-9.0
July	281.8	-1.4	236.2	233.8	740.3	346.4	0.5
August	280.1	-0.6	239.5	235.0	730.0	343.3	-0.9
September	280.7	0.2	242.4	236.2	747.5	342.6	-0.2
October	284.6	1.4	246.3	237.3	746.7	347.8	1.5
November	309.1	8.6	250.7	239.0	748.2	363.1	4.4
December	333.2	7.8	257.2	240.2	752.0	374.3	3.1
1999 1/							
January	351.2	5.4	265.5	249.6	867.8	428.6	14.5
February	356.5	1.5	269.4	253.8	876.5	446.6	4.2
March	358.6	0.6	269.4	258.6	882.6	451.1	1.0
April	365.8	2.0	275.4	264.6	892.3	458.7	1.7
May	380.8	4.1	288.9	276.7	902.1	470.7	2.6
June	654.9	7.2	319.2	288.4	909.3		
Memorandum items:				(Percent changes)			
Annual average							
1994	...	329.7	453.0	466.1	721.9	...	205.1
1995	...	30.2	29.6	25.3	40.3	...	255.3
1996	...	23.5	19.5	16.6	60.9	...	31.2
1997		11.8	7.0	7.5	36.5	...	15.3
1998	...	7.7	6.1	5.1	22.3	...	4.4
End Period (December)							
1994	...	116.1	105.1	85.6	219.9	...	214.5
1995	...	23.8	24.5	12.0	58.0	...	46.6
1996	...	15.1	11.6	14.7	29.9	...	20.4
1997	...	11.1	6.3	5.3	37.2	...	13.4
1998	...	18.2	7.9	5.1	19.5	...	4.4

Sources: Department of Statistics; and Fund staff estimates.

1/ Relative shares were changed as of January 1, 1999 to increase food from 49.3 percent to 57.3 percent, lower non-food from 34.2 percent to 26.0 percent, and other services from 16.6 percent to 16.7 percent.

Table 36. Moldova: General Government Budget, 1994-98 1/
(In millions of lei; unless otherwise indicated)

	1994	1995	1996	1997	1998
REVENUES	1,847	2,556	2,835	3,671	3,505
Tax revenues	1,454	2,171	2,417	3,027	2,931
Direct taxes	480	594	578	526	403
Indirect	433	755	810	1,460	1,499
Foreign trade taxes	30	51	95	127	109
Social fund contributions	474	640	761	729	783
Other taxes 2/	36	130	174	185	137
Non-tax revenues and grants 3/	393	385	418	643	574
EXPENDITURES and NET LENDING	2,347	2,993	3,418	4,362	3,804
Expenditures	2,212	2,927	3,546	4,332	3,774
National economy	135	167	178	359	281
Social sphere	953	1,113	1,530	1,662	1,336
Interest	164	265	243	377	421
Domestic	120	173	132	213	244
Foreign	44	93	111	165	177
Capital expenditures	110	135	149	234	206
Other expenditures 4/	389	530	658	643	619
Social fund expenditures 5/	452	648	766	1,057	912
Net lending	111	71	-137	30	30
FISCAL BALANCE (cash)	-501	-437	-583	-691	-300
Change in arrears (+ - increase)	110	145	364	-290	522
Domestic expenditure	110	145	364	-287	430
Foreign interest	0	0	0	-3	92
FISCAL BALANCE (commitment)	-611	-582	-947	-401	-822
FINANCING	501	437	583	691	300
Net domestic	117	189	131	407	604
Net Central Bank	107	112	-62	142	823
Net commercial banks 6/	9	69	42	189	-92
Net nonbank 6/	--	9	151	76	-127
Net foreign	384	248	452	284	-304
Drawings	384	422	505	596	0
Amortization	0	-174	-53	-312	-639
Change in principal arrears	0	0	0	0	62
Debt rescheduling/restructuring	0	0	0	0	273
			(In percent of GDP)		
Revenue	33.5	33.9	32.1	36.3	34.6
Tax revenue	26.4	28.8	27.4	29.9	29.0
Non-tax revenue	7.1	5.1	4.7	6.4	5.7
Expenditure and net lending	42.6	39.7	38.7	43.1	37.6
Expenditure	40.2	38.8	40.2	42.8	37.3
Net lending	2.0	0.9	-1.5	0.3	0.3
Surplus/deficit (cash)	-9.1	-5.8	-6.6	-6.8	-3.0
Surplus/deficit (commitment)	-11.1	-7.7	-10.7	-4.0	-8.1
Memorandum items (in millions of lei):					
Stock of expenditure arrears	454	599	963	679	1,109
Nominal GDP	5,505	7,545	8,828	10,118	10,119

Sources: Data provided by authorities, and Fund staff estimates.

1/ The accounts comprise the republican government, local governments, extrabudgetary funds and the Social Fund.
2/ Includes land tax, real estate tax, natural resources tax, state tax, and private tax.
3/ Includes profit remittances from the National Bank of Moldova and privatization revenues.
4/ Includes extrabudgetary funds on a net basis, administrative, military, indexation of deposits, environment, and unallocated.
5/ Includes transfers from the State Budget.
6/ Includes treasury securities.

Table 37. Moldova: General Government Revenues, 1994-98 1/
(In millions of lei; unless otherwise indicated)

	1994	1995	1996	1997	1998
TOTAL REVENUE	1,847	2,556	2,835	3,671	3,505
Tax revenues	1,454	2,171	2,417	3,027	2,931
Direct taxes	480	594	578	526	403
Profit tax	351	392	359	244	179
Personal income tax	130	201	219	282	224
Indirect	433	755	810	1,460	1,499
VAT	282	568	614	949	1,124
Excises	151	186	197	511	375
Foreign trade taxes	30	51	95	127	109
Social fund contributions	474	640	761	729	783
Other taxes 2/	36	130	174	185	137
Non-tax revenues and grants	393	385	418	643	574
Of which Privatization revenue	24	24	38	239	77
Of which Central Bank profits	0	190	106	131	187
	(In percent of GDP)				
TOTAL REVENUE	33.5	33.9	32.1	36.3	34.6
Tax revenue	26.4	28.8	27.4	29.9	29.0
Direct taxes	8.7	7.9	6.5	5.2	4.0
Profit tax	6.4	5.2	4.1	2.4	1.8
Personal income tax	2.4	2.7	2.5	2.8	2.2
Indirect taxes	7.9	10.0	9.2	14.4	14.8
VAT	5.1	7.5	7.0	9.4	11.1
Excises	2.8	2.5	2.2	5.0	3.7
Foreign trade taxes	0.5	0.7	1.1	1.3	1.1
Social fund contributions	8.6	8.5	8.6	7.2	7.7
Other taxes 2/	0.7	1.7	2.0	1.8	1.4
Non-tax revenue and grants	7.1	5.1	4.7	6.4	5.7
o/w Privatization revenue	0.4	0.3	0.4	2.4	0.8
o/w Central Bank profits	0.0	2.5	1.2	1.3	1.8
Memorandum items (in millions of lei):					
Tax arrears	...	823	1,205	1,132	1,484
Nominal GDP	5,505	7,545	8,828	10,118	10,119

Sources: Data provided by authorities, and Fund staff estimates.

1/ Comprises the republican government, local governments, extrabudgetary funds and the Social Fund.

2/ Includes land tax, real estate tax, natural resources tax, state tax, and private tax.

Table 38. Moldova: General Government Expenditures, 1994-98 1/
(In millions of lei unless otherwise indicated; cash basis)

	1994	1995	1996	1997	1998
TOTAL EXPENDITURES and NET LENDING	2,347	2,993	3,418	4,362	3,804
Total Expenditures	2,212	2,927	3,546	4,332	3,774
Current expenditure					
National economy	135	167	178	359	281
Environment	8	8	14	7	6
Social sphere	953	1,113	1,530	1,662	1,336
Education	414	567	790	890	637
Health care	292	366	521	537	393
Other	246	180	220	235	306
Interest	164	265	243	377	421
Domestic	120	173	132	213	244
Foreign	44	93	111	165	177
Capital expenditures	162	135	149	234	206
Other expenditures 2/	331	530	658	643	619
Social fund expenditures 3/	452	648	766	1,057	912
Net lending	111	71	-137	30	30
			(In percent of GDP)		
Total expenditure and net lending	42.6	39.7	38.7	43.1	37.6
Total Expenditures	40.2	38.8	40.2	42.8	37.3
National economy	2.4	2.2	2.0	3.6	2.8
Environment	0.2	0.1	0.2	0.1	0.1
Social sphere	17.3	14.8	17.3	16.4	13.2
Education	7.5	7.5	8.9	8.8	6.3
Health care	5.3	4.9	5.9	5.3	3.9
Other	4.5	2.4	2.5	2.3	3.0
Interest	3.0	3.5	2.8	3.7	4.2
Domestic	2.2	2.3	1.5	2.1	2.4
Foreign	0.8	1.2	1.3	1.6	1.7
Capital expenditures	2.0	1.8	1.7	2.3	2.0
Other expenditures 2/	7.1	7.0	7.5	6.4	6.1
Social fund expenditures 3/	8.2	8.6	8.7	10.4	9.0
Net lending	2.0	0.9	-1.5	0.3	0.3
Memorandum items (in millions of lei):					
Stock of expenditure arrears	454	599	963	679	1,109
Nominal GDP	5,505	7,545	8,828	10,118	10,119

Sources: Data provided by authorities, and Fund staff estimates.

1/ Comprises the Republican government, local governments, extrabudgetary funds and the Social Fund.
2/ Includes extrabudgetary funds on a net basis, administrative, military, indexation of deposits, environment, and unallocated.
3/ Includes transfers from the State Budget.

Table 39. Moldova: Accounts of the National Bank of Moldova, 1994-99

(In millions of lei; end period at current exchange rates)

	1994	1995	1996	1997				1998				1999	
				Mar.	Jun.	Sep.	Dec.	Mar.	Jun.	Sep.	Dec.	Mar.	Jun.
Net foreign assets	85.9	129.5	313.7	242.6	471.1	538.1	605.6	471.1	397.4	94.6	-304.5	-212.0	-188.0
NFA (convertible)	72.2	117.4	308.1	237.7	466.2	532.2	599.7	475.0	401.1	98.2	-302.3	-210.0	-186.0
Assets	767.5	1154.1	1458.2	1305.6	1540.2	1660.7	1704.2	1531.7	1364.1	1054.1	1195.1	1,590.0	1,713.0
Liabilities	-695.4	-1036.7	-1150.1	-1067.9	-1074.0	-1128.5	-1104.5	-1056.7	-963.0	-955.9	-1497.4	-1,801.0	-1,899.0
NFA (non convertible, net)	13.8	12.1	5.6	4.9	5.5	5.9	5.9	-3.9	-3.9	-3.6	-2.2	-2.0	-2.0
Net domestic assets	466.2	652.0	540.3	598.9	467.7	467.4	517.0	557.0	583.9	755.0	1365.3	1,304.0	1,438.0
Domestic credit	594.2	797.9	732.4	782.2	690.6	694.9	786.9	787.7	842.8	1026.5	1569.1	1,508.0	1,595.0
Net claims on general government	319.5	431.4	369.7	508.8	419.6	453.5	516.7	526.0	531.6	725.7	1339.5	1,344.0	1,456.0
Credit to banks	274.7	366.5	362.6	273.4	271.0	241.4	270.3	261.8	311.2	300.8	229.5	164.0	139.0
Other items (net)	-127.9	-145.9	-192.1	-183.3	-222.9	-227.5	-269.9	-230.7	-259.0	-271.4	-203.8	-204.0	-157.0
Reserve money	552.1	781.5	854.0	841.5	939.4	1005.5	1122.6	1028.1	981.3	849.6	1060.9	1,092.0	1,250.0
Currency in circulation	345.4	638.8	731.1	693.1	784.3	869.3	972.1	924.4	863.6	747.0	855.3	854.0	910.0
Bank reserves	201.4	140.4	118.6	144.1	155.1	136.2	150.6	103.7	117.7	102.6	205.5	238.0	339.0
Of which: Cash in vault	9.4	15.8	20.5	28.6	26.4	31.5	32.4	35.3	26.6	27.9	27.5	29.0	29.7
Enterprise deposits	5.3	2.3	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: National Bank of Moldova.

Table 40. Moldova: Monetary Survey, 1994-99
(In millions of lei, end-of-period, at current exchange rates)

	1994	1995	1996	1997				1998				1999	
				Mar.	Jun.	Sep.	Dec.	Mar.	Jun.	Sep.	Dec.	Mar.	Jun.
Net foreign assets	215.9	232.7	270.7	186.5	379.1	435.7	484.2	255.0	129.1	-171.0	-630.3	-464.0	-380.0
NFA (convertible)	170.5	210.9	245.6	175.5	360.2	424.7	458.1	278.8	195.4	-136.3	-594.2	-460.0	-386.0
Assets	988.6	1,301.8	1,632.6	1,435.8	1,668.4	1,827.0	1,815.0	1,640.1	1,518.9	1,254.4	1,436.2	1,970.0	2,213.0
Liabilities	-818.1	-1,090.9	-1,387.0	-1,260.3	-1,308.2	-1,402.3	-1,356.8	-1,361.3	-1,323.5	-1,390.7	-2,030.4	-2,429.0	-2,599.0
NFA (other than convertible)	45.4	21.8	25.2	11.0	18.8	11.0	26.1	-23.8	-66.3	-34.7	-36.1	-5.0	6.0
Net domestic assets	537.0	1,011.2	1,163.3	1,219.3	1,190.4	1,352.6	1,437.9	1,635.6	1,744.0	1,839.4	2,385.8	2,318.0	2,580.0
Domestic credit	973.1	1,522.8	1,803.9	1,895.5	1,912.2	2,127.6	2,305.2	2,528.6	2,658.0	2,750.5	3,295.1	3,274.0	3,457.0
Net claims on general government	308.0	488.9	468.8	632.0	599.9	709.0	804.3	845.5	878.8	986.4	1,534.2	1,589.0	1,679.0
Credit to the economy	668.7	1,033.9	1,335.1	1,263.5	1,312.4	1,418.7	1,505.6	1,683.0	1,779.0	1,764.0	1,761.0	1,685.0	1,778.0
Other items (net)	-440.0	-511.6	-640.5	-676.2	-721.8	-775.1	-872.0	-893.0	-914.1	-911.0	-909.3	-965.0	-877.0
Broad money	753.0	1,243.8	1,434.1	1,405.9	1,569.5	1,788.3	1,922.1	1,890.6	1,873.1	1,668.4	1,755.8	1,853.0	2,200.0
(excluding Foreign currency deposits)	675.7	1,107.2	1,292.1	1,261.1	1,410.8	1,584.6	1,738.9	1,689.7	1,620.8	1,380.4	1,358.0	1,391.0	1,461.0
Currency in circulation	345.4	638.8	731.1	693.1	784.4	869.3	972.1	924.4	863.6	747.0	855.3	854.0	910.0
Demand deposits	179.0	246.9	267.5	251.1	268.6	321.7	325.8	311.8	284.3	228.1	203.7	207.0	222.0
Time deposits	151.4	221.5	293.6	316.9	357.8	393.6	441.0	453.5	472.9	405.3	299.0	330.0	328.0
Foreign currency deposits	77.3	136.6	141.9	144.8	158.7	203.7	183.2	200.9	252.3	288.0	397.8	463.0	739.0

Source: National Bank of Moldova.

Table 41. Moldova: Balance of Payments, 1994-98
(In millions of U.S. dollars)

	1994	1995	1996	1997	1998
Current account	-98	-115	-188	-268	-334
Trade balance	-54	-55	-252	-345	-398
Exports of goods	618	739	823	890	644
Imports of goods	-672	-794	-1,075	-1,235	-1,043
Of which : Energy products	-287	-293	-328	-337	-245
Balance of services	-51	-96	-64	-62	-73
Exports of services	33	126	114	134	119
Imports of services	-79	-222	-178	-196	-192
Income (net)	-16	-29	55	62	41
Current transfers (net)	24	65	73	76	98
Capital and financial account	93	71	170	324	-2
Capital transfers	0	0	0	0	1
Direct investment	18	73	23	71	86
Portfolio investment 1/ 2/	0	0	54	237	-55
Of which : Government securities 1/ 2/	0	0	24	14	-35
Medium and long-term loans	157	74	101	11	40
Disbursements	175	132	133	101	83
World Bank	67	50	0	38	32
E.B.R.D.	0	5	34	23	15
Other official	64	49	46	13	21
Private creditors	0	27	53	27	15
Amortization	-18	-58	-32	-90	-43
Other capital flows	-83	-75	-9	5	-75
Errors and omissions	-105	-10	17	11	24
Overall balance	-110	-54	-1	67	-311
Financing	110	54	1	-67	311
Use of IMF credit (net)	72	65	25	1	-64
Gross official reserves	-102	-78	-57	-52	223
Debt arrears	18	21	-35	33	50
Arrears on energy deliveries 2/	122	47	68	-48	103
Memorandum items:					
Gross official reserves	179	257	314	366	140
(In months of imports)	3	3	3	3	1

Sources: National Bank of Moldova; and Fund staff estimates.

1/ Includes Eurobond issues.
2/ Entries for 1997 reflect issuance of $140 million of securities to Gazprom in settlement of energy arrears.

Table 42. Moldova: Composition of Trade, 1994-98

(In percent of total)

Product description	Exports					Imports				
	1994	1995	1996	1997	1998	1994	1995	1996	1997	1998
Livestock and Animal products	8.0	9.1	7.6	8.6	5.4	0.4	1.0	1.5	1.9	1.7
Vegetable products	17.6	10.2	8.5	8.6	11.3	4.0	4.1	3.8	3.2	1.6
Animal and vegetable grease and oils	2.0	1.5	0.4	0.9	0.6	0.1	0.2	0.3	0.4	0.3
Foodstuffs: hard and soft drinks, vinegar, tobacco and its substitutes	40.1	51.3	57.1	54.8	55.4	3.1	4.1	7.7	7.6	5.5
Mineral products	2.6	1.1	0.3	0.4	0.4	55.6	46.5	37.0	35.3	31.8
Chemicals and related products	1.4	1.1	1.5	1.5	1.2	5.8	7.8	7.1	9.6	9.1
India-rubber and plastic products made of them	0.6	0.6	0.7	0.6	0.5	1.7	2.5	3.3	3.1	3.2
Raw and tanned leather, furs and items made of them	1.6	2.0	1.5	1.4	1.7	0.5	0.5	0.3	0.3	0.2
Timber and timber products, cork	0.0	0.1	0.1	0.1	0.1	1.1	1.4	1.7	1.7	1.5
Paper, cardboard, and items made of them	1.4	1.1	1.1	0.4	0.4	2.2	3.5	4.3	4.1	4.5
Textiles and textile products	5.2	4.7	6.2	6.7	9.8	5.9	4.9	5.4	5.3	6.2
Footwear, hats, umbrellas, artificial flowers	0.5	0.4	0.5	0.6	0.4	0.5	0.3	0.3	0.3	0.3
Items made of stone, gypsum, cement, asbestos, ceramics, glass and other similar materials	1.0	2.1	3.4	1.4	1.5	1.5	2.6	2.5	3.9	3.4
Precious metals, items made of them, precious and semi-precious stones, jewellery, coins	0.2	0.3	0.1	0.1	0.0	0.1	0.3	0.3	0.2	0.1
Metals and items made of metals	3.3	4.3	1.7	1.0	1.5	3.1	4.0	4.7	4.4	4
Machinery, electric equipment and its parts, registration devices or sound and imade reproducing devices and accessories	9.6	6.2	5.3	5.2	6.5	9.8	12.4	14.5	12.9	19.1
Motor vehicles, aircrafts, vessels, and auxillary transportation equipment	1.9	1.7	1.6	5.9	1.6	3.0	2.6	3.2	3.0	4.6
Optical, photographic, cinematographic measurement, control devices and instruments, surgical instruments, watches, musical instruments	0.3	0.2	0.5	0.4	0.5	0.6	0.8	1.5	1.7	1.6
Goods and various products	2.7	2.0	1.9	1.4	1.2	1.0	0.5	0.6	1.1	1.3
Works of art and antiques	0.0	0.0	0.0	0.0	0.0 #	0.0	0.0	0.0	0.0	0.0

Source: Moldovan Department of Statistics.

Table 43. Moldova: Summary of Tax Structure and Recent Changes, 1997-99

Main Taxes	Description	Rates	Legislation
Corporate Income Tax	Base: Corporate earnings. Revenue sharing arrangements (until 1999): 40 percent allocated to local budgets in Chisinau and Balti, 70 percent in Gagauzia, and 50 percent in other rayons. Income tax of banks and insurance companies not shard with local budgets. In 2000, the Law on Local Public Finances changes the current revenue sharing arrangements. Main exemptions: Agricultural enterprises (1997). Charity funds, religious organizations, orthopedic equipment producers. Tax benefits for small enterprises and foreign investors. Lower rate for agricultural enterprises, and Free Trade Zones (until 1998).	32 percent until 1997. Reduction to 28 percent in 1998.	Corporate Income Tax Law (No. 1214-XII of December 2, 1992). Law on Income Tax for Banks and Financial Institutions (No. 490-XIII of June 8, 1995). Annual Budget Laws. Chapters I and II of the Tax Code (1998).
Personal Income Tax	Base: Earnings (in cash and in kind). Revenue sharing: Local tax not shared with State budget. Main exemptions: Disabled, military, and registered unemployed.	1997 Budget Law: 10, 20, and 30 percent rates. 1998 Budget Law: 15, 20 and 32 percent rates. 1999 Budget Law: 10, 15, and 28 percent rates in 1999.	Individual Income Tax Law (No. 1218-XII of December 2, 1992). Annual Budget Laws.
VAT	Base: Goods and services produced domestically or imported. Revenue sharing arrangements: 10 percent allocated to local budgets in Chisinau and Balti, 30 percent in Gagauzia, and 20-30 percent in other rayons. In 2000, the Law on Local Public Finances changes the current revenue sharing arrangements. VAT on imported goods not shared with local governments. Exemptions: Various (Article 5 of the VAT Law)	20 percent (8 percent on necessity goods).	Value Added Tax Law (No. 264-XIII of November 8, 1994). Chapter II of the Tax Code (1998). Chapter III of the Tax Code (1999). Annual Budget Laws.
Excises	List of excisable goods in annual Budget Laws. Revenue sharing: State budget tax not shared with local budgets.	According to annual Budget Laws. Increase in rates for certain excisable goods in 1999.	Excise Tax Law (No. 347-XIII of December 2, 1994). Annual Budget Laws.
Foreign Trade Tax	Free trade agreement with CIS and Romania. Revenue sharing: State budget tax not shared with local budgets.	Tariff range of 0-50 percent in 1997. Tariff range of 0-40 percent in 1998. Maximum tariff of 15 percent in 1999. Minimum 5 percent tariff in 1999 (including Romania and the CIS).	Annual Budget Laws.
Land Tax	Base: Collective, State-owned and private rural and urban parcels of land. Revenue sharing: Local tax not shared with State budget.	Varies according to location and use between 1 and 350 lei per hectare. Increase in rates in 1999.	Law on Taxes No. 1254-XII of December 2, 1992 Annual Budget Laws.
Real Estate Tax	Base: real estate and fixed assets. Revenue sharing: Local tax not shared with State budget. Proposal for combination of the land and real estate tax in a property tax in 2000. Differentiated rates for dwelling purposes depending of surface. Main exemptions: Afghanistan War veterans and workers in the Chernobyl clean-up in 1999.	Varies between 0.1 and 0.5 percent of the real estate value. Reduction to 0.15 percent in 1998. Varies between 0.1 and 0.3 percent of the real estate value (1999).	Real Estate Tax Law (No. 189 of November 8, 1993). Annual Budget Laws.
Special Road Tax	Vehicle registration and road tolls.		Law on the Road Fund (No. 720-XIII of February 2, 1996).

Table 44. Main Expenditure Policy Measures in 1998-99 1/

A. Wages and Public Sector Employment	
1. Partial hiring freeze in the public sector	Total employment in public sector institutions was cut from 332,000 in January 1998 to 309,300 in January 1999. Law No. 96 of July 16, 1998 provided for a reduction of employment in public sector institutions by cutting vacant positions and introducing a hiring freeze in these institutions. Additional measures were introduced by Government Resolution "Additional measures to ensure the execution of the 1999 Budget," No. 28 of January 20, 1999.
2. Consolidation of ministries and departments, and elimination of public sector functions	In the context of the administrative and territorial reform, the structure and staffing of local departments of ministries and government departments are being reviewed, overlapping functions are being eliminated, and certain functions were transferred to self-supporting agencies. A government committee for designing a new government structure was established (Government Resolution No. 172 of December 17, 1998).
3. Consolidation of local government	The Local Government Law (February 8, 1999) was implemented in conjunction with the Law on the Administrative and Territorial Reform. Local government employment will be reduced by 5,000-10,000 in 1999. The fiscal impact is estimated at Mdl 28 million in expenditures cuts in 2000. The legal framework for the implementation of the Local Governments Law comprises: the Law on Local Public Finances (approved on July 9, 1999); the amendments to the 1999 Budget Law in line with the dministrative and territorial reform (passed on June 30, 1999); the Wage Law (amended and passed); and a number of Government Resolutions ("Wages of the Staff of Prefectures," No. 427 of May 13, 1996; "Approval of Regulations of the Committee for Liquidating Districts and Forming Local Governments," No. 265 of April 6, 1999; "Staffing Tables for Town Government," No. 544 of June 15, 1999; "Devolution of public services from ministries and departments of the central government to local government" (drafted); "Staffing tables for *uyezd* administration" (drafted); Ministry of Finance Memorandum "Actions related to the implementation of the administrative and territorial reform" 02/1–03/922 of May 27, 1997; and Government Memorandum "Actions related to the implementation of administrative and territorial reform" No. 1312–128 of June 24, 1999).

4. Centralization of recruitment of central government civil servants	The computerization of records in the personnel departments of the ministries and departments of the Central Government is being carried out with technical assistance from TACIS. Regulations on recruitment for vacant positions in the civil service are being adopted.
B. Education	
1. Partial hiring freeze in the education sector	Employment in the education sector fell from 148,951 in 1997 to 148,463 in 1998. The wage bill fell to Mdl 284,991 million in 1998 from Mdl 307,193 million in 1997.
2. Increase in average class size and teaching load	In 1999, the average number of students per class increased by 0.4 compared to 1998 to 24.1 students per class. In Memorandum No. 02/3–17/51 of June 8, 1999, the Ministry of Finance proposed amendments to article 13 (4) of the Education Law along the following lines: • Increase to 20 children per group instead of 10 in crèches. • Increase to 25 children per class instead of 15 in kindergartens; in primary, secondary, advanced secondary schools, increase to 25 students per class instead of 20; • In colleges and universities, increase to 30 students per class instead of 25. Given that since September 1, 1998, school curricula have been changed to reduce the number of teaching hours per subject. As of September 1, 1998, total teaching hours were 812,771, reflecting a decrease of 51,188 hours in relation to September 1, 1997.
3. Streamlining of pre-school education	In 1998, there were 1,237 pre-schools with enrollment of 108,800 children, against 1,246 pre-schools with 115,996 children in 1997. Budget expenditure on these institutions fell from Mdl 1988 million in 1997 to Mdl 153.2 million in 1998. In 1999, pre-school fees were increased from 30 to 50 per cent of the food costs, resulting in a fall in expenditures of approximately Mdl 10 million.

4. Introduction of user charges in universities and colleges	In 1999, students of vocational and professional schools will receive student benefits instead of free meals (Government resolution No. 71 of February 2, 1999). Government Resolution No. 367 of April 28, 1999 introduced accommodation fees for students (30 percent of the accommodation costs for undergraduates, and 50 percent of the accommodation costs for post-graduates). Other resident students will pay rents at full cost-recovery level. Students of vocational and professional schools will receive student benefits instead of free meals (Government Resolution No. 71 of February 2, 1999). The possibility of introducing user charges is being considered.
C. Health Care	
1. Restructuring of health care services	A number of village hospitals were closed, leading to a reduction in the number of hospital beds. The 1999 budget eliminates 4,000 beds in hospitals funded by local budgets, and 3,000 beds in hospitals funded by the State budget. The saving to the budget is estimated at approximately Mdl 70 million.
2. Introduction of per capita budget allocation	In 1999, budget funds for health care were estimated on per capita basis.
3. Adoption of a minimal medical services package in conformity with budgeted funds	The Law on Minimum Medical Services Guaranteed by the State No. 267-XIV was implemented on February 3, 1999. The implementation of this law was reviewed by the Government on July 2, 1999 including the goals achieved by the introduction of medical services guaranteed by the state; the regulation on paid medical services provided to the population; and the formulation of medical services charges and tariffs. The introduction of user charges is expected to yield additional Mdl 50 million in 1999 and approximately Mdl 100 million the following year.
4. Partial hiring freeze in the health care sector	Over last five years, the staff of medical institutions was reduced by 9,266 employees (10 percent), of which 3,944 in 1998. In most cases, downsizing was carried out mainly at the local level and amounted to 8,718 employees over last 5 years, including 3,944 employees in 1998. In view of the partial hiring freeze, downsizing will continue in 1999.

D. Social Assistance	
1. Pegging of pensions to contributions and increase in the retirement age	On January 1, 1999, the Law on Public Pensions was implemented, including a gradual increase of the retirement age and pegging pensions to length of service and contributions.
2. Elimination of privileges, and better targeting of compensations	Government Resolution No. 569 of June 18, 1999 eliminates all effective housing and utilities privileges and transportation benefits. It also changes the mechanism of granting such benefits and limits them to the most vulnerable groups of the population (1st and 2nd degree invalids, disabled children under 16, families of those killed in service, World War II participants) by providing money compensations directly to beneficiaries for utilities, electricity, natural gas, heat and fuel and covering the costs from the State budget through the Social Fund. The annual cost of the project is estimated at approximately Mdl 50 million with Mdl 148.5 million savings compared with the Mdl 200 million originally envisaged in the State budget for 1999 for loss compensations of energy companies.
3. Elimination of subsidies for milk and cattle	No funds for these purposes were budgeted for 1999.
E. Capital Expenditures	
1. Identifying key investment projects	Government Resolution No. 379 of May 4, 1999 identified specific investment projects and allocated Mdl 39.5 million in 1999 for public sector funding of investment projects with foreign participation, including the modernization of Chisinau International Airport (Mdl 22.7 million), water supply to the south of the country (Mdl 9.6 million), and rehabilitation of water supply system in the municipality of Chisinau (Mdl 7.25 million).
2. Suspension of new housing construction projects	The capital expenditure program for 1999 (Government Decision No. 379 of May 4, 1999) does not allocate budget resources for new housing construction projects. Funding for completion of housing construction already in progress and having reached completion at more than 90 percent amounts to Mdl 2.8 million in 1999, or 4.2 percent of total investment and 71 percent less than total investment for these purposes in 1998.