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ROMANIA

Selected Issues and Statistical Appendix

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and Ward Brown (PDR)

Approved by the European I Department

November 6, 2000

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INTRODUCTION

1. Romania's transition to a market-based economy has been painful. Living standards for large parts of the population have deteriorated over the past ten years, from already low levels under communism. This reflects the fact that the country's economic performance has been among the weakest of the transition economies in the region, owing to limited progress in structural reform and stop-go macroeconomic policies that contributed to low growth, high and variable rates of inflation, and several episodes of severe balance of payments pressures.

2. But there are now signs that recent stabilization efforts have started to bear fruit. An economic program launched in early 1999 has yielded improved external viability and financial stability, and—recently—signs of sustainable growth, although the inflation outcome was less favorable. Given the previous poor record of economic performance, the by-and-large encouraging recent experience provides an opportunity to identify policies which have worked well and those which have not.

3. Against this background, the following chapters review policy developments over the last ten years, with particular focus on the last three years. Chapter I discusses the determinants of inflation, which has been the highest among transition countries in central and eastern Europe. It establishes the key role of unit labor costs in driving inflation—a reflection of the unfinished state of restructuring in the economy—as well as of the exchange rate, which in turn has reflected monetary conditions. Chapter II reviews salient trends in public finance and finds that while important progress has been made—particularly in limiting the overall deficit as well as in tax policy—the fiscal situation remains precarious and calls for urgent measures in the area of expenditure policy. Chapter III takes a look at monetary policy, and finds that both the conduct and operational setting of monetary policy have recently improved—much of the improvements owing to the recent policies to clean up the financial sector outlined in Chapter IV. Nonetheless, a fundamental lack of policy credibility still needs to be overcome. Chapter V chronicles the balance of payments crisis in 1999 and looks at the recently improved external viability trends.

4. All of the chapters identify key policy issues and challenges for the immediate future and the medium-term. Within Romania, a broad-based consensus sees medium-term prospects intricately linked to the country's accession to the European Union. The relevant aspects of this process are discussed in Chapter VI.

I. INFLATION IN ROMANIA—DEVELOPMENTS AND DETERMINANTS¹

A. Overview

1. Inflation in Romania has been high and variable through the past decade, owing fundamentally to stop-go stabilization efforts and widespread financial indiscipline. This financial indiscipline has taken several forms over time, including large fiscal and quasi-fiscal deficits, accumulation of arrears, and outbreaks of wage growth well in excess of productivity.
2. **Econometric evidence highlights the role of unit labor costs, and to a lesser extent the exchange rate, in driving inflation.** Unit labor costs have been the leading proximate determinant of inflation, with deeply rooted financial indiscipline at the enterprise level being largely reflected in higher wages than justified by productivity, or than could even be paid in many enterprises in the absence of soft budget constraints. The influence of the exchange rate on inflation has also become increasingly clear over the past few years, in the wake of the full liberalization of the foreign exchange market.
3. **The role of money and credit growth in causing inflation has also been important, though harder to demonstrate empirically.** Episodes of excessive money growth led to a buildup of inflationary pressure, but the actual path of inflation was determined largely by policy decisions regarding the timing and magnitude of price liberalizations and exchange rate adjustments. The high rates of money growth in the mid-1990s are still the most plausible explanation for the magnitude of the inflationary spike following the last round of major price liberalization in 1997.
4. **This chapter reviews recent developments in inflation in Romania, and analyzes its key determinants.** Part B provides background on aggregate and sectoral price developments over the past decade, and the process of price liberalization. Part C reviews developments in several variables commonly identified in the literature as sources of price pressures, including wages, the exchange rate and monetary aggregates. Part D examines empirically the relationships among prices and wages, money and the exchange rate through the 1990s using vector autoregression (VAR) models. Part E concludes.

B. Price Developments

Price Outcomes

5. Inflation has been high and variable through the past decade. On a 12-month basis, inflation reached some 200-300 percent at the start of the transition. Inflation eased steadily between mid-1993 and mid-1995, reaching a low of 25 percent, but again accelerated from second half of 1995. The dramatic surge in early 1997 was associated with the liberalization

¹ This chapter was prepared by David Moore.

of agricultural and energy prices;¹ 12-month inflation peaked just below 180 percent in mid-1997 and remained very high until 1998, but monthly rates fell swiftly after the initial surge.

Figure I.1a. Consumer and Producer Prices

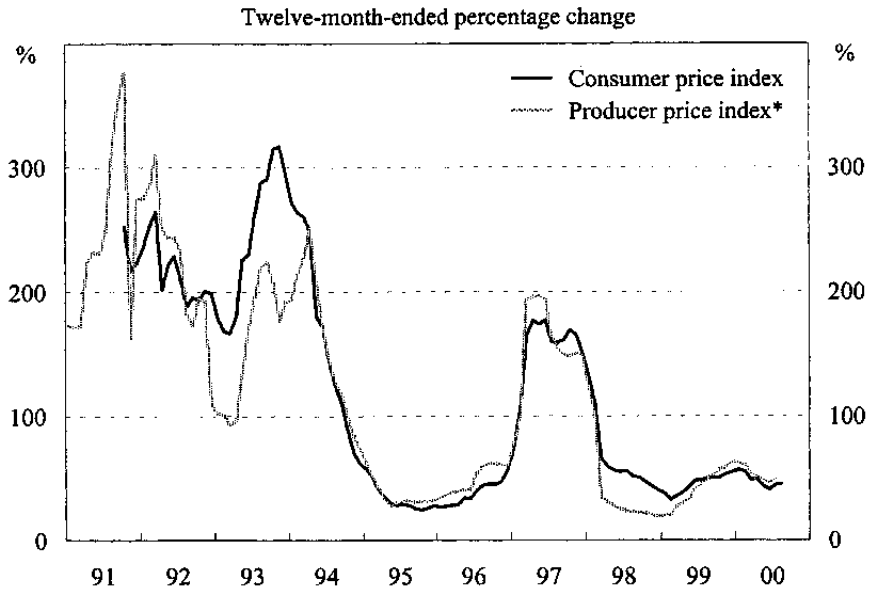
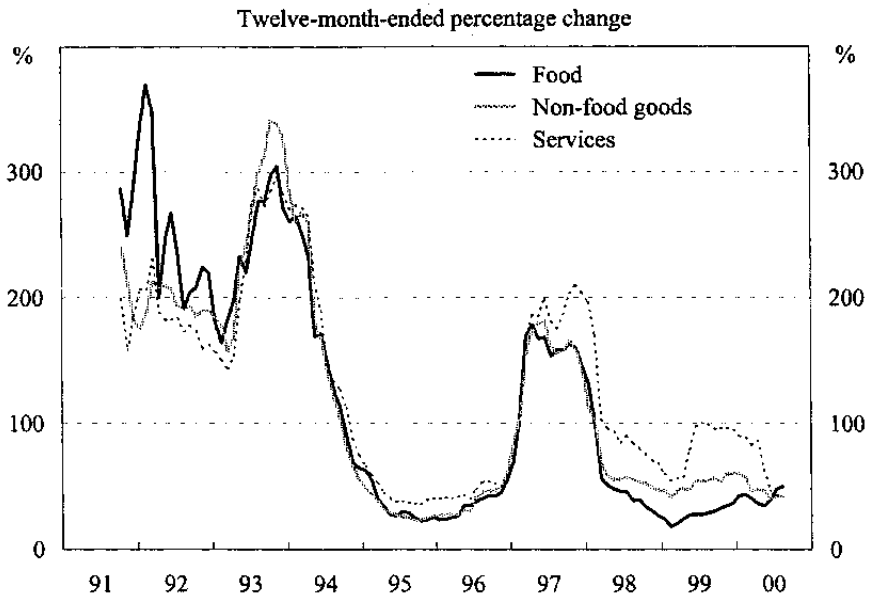


Figure I.1b. Consumer Prices



¹ Note that the inflation surge was *caused* by factors other than the relaxation of price controls, which merely *released* inflationary pressures.

6. Although down from its high levels following the last round of price liberalization in 1997, inflation has remained volatile. Inflation slowed in 1998, with the 12-month rate bottoming out at 33 percent in February 1999, in response to tight monetary policy and a slower rate of depreciation of the leu. However, against a background of a large fiscal deficit and continuing rapid wage growth, this slowdown came at the cost of a large real appreciation and severe loss of competitiveness. The subsequent large corrective depreciation contributed to a renewed pickup in inflation through 1999, and consumer prices increased by 57 percent in the year to January 2000.

7. Aggregate prices are particularly strongly influenced by food prices, which account for around half of the CPI basket. The prices of food, non-food goods, and services increased at broadly similar rates during the mid-1990s, but have grown at increasingly divergent paces over the past couple of years (Figure I.1b). Services prices rose especially rapidly in 1999, in part reflecting the effects of large increases in administered prices (see below). In 2000, drought has caused a sharp rise in food prices and frustrated progress in disinflation. Notwithstanding the high weight of food in the CPI basket, most other measures of inflation, such as producer prices and the household consumption and GDP deflators, have mostly moved broadly in line with the CPI (Table I.1). A notable exception is 1998, when consumer prices increased by 59 percent but producer prices rose by only 33 percent (Figure I.1a).²

Price liberalization

8. Price liberalization in Romania was fitful and protracted, with the last major round of liberalization delayed until 1997. Moreover, estimates vary on the degree to which prices remained controlled during the mid-1990s; in many cases, consumer prices were liberalized but the raw and basic material prices were not; in others, "liberalized" prices were heavily distorted by subsidies, especially in the agricultural sector.

9. Initial progress in price liberalization seemed encouraging. Demekas and Khan (1991) reported that most prices were liberalized in three rounds, in November 1990, in April 1991, and in July 1991, after which the authorities claimed around 80 percent of consumer prices were market-determined. Price controls and subsidies for most other consumer goods were supposedly eliminated in 1993.

10. Nevertheless, formal and informal price controls persisted, or were reintroduced, during the mid-1990s; controls on food prices were especially pervasive. The OECD (1993) noted that prices on many consumer items, notably in state-owned retail stores, were still not market-determined, instead being subject to supervision based on strict mark-up limits. More formally, Government Decision 45/1994 declared a wide range of items as being of "national

² This is consistent with (and in fact may be regarded as one measure of) the real appreciation in 1998.

importance” and subject to review (and influence) by the Competition Office.³ The IMF (1997) reports that, in addition to an array of producer price controls, the government had maintained direct wholesale and retail price ceilings on a number of sensitive food items,⁴ which accounted for 28 percent in the total consumption basket. With energy, utility, transport and telecommunications prices also administered, this implied that nearly 40 percent of the consumer price basket was still controlled as at end-1996.

11. Most prices still subject to control were liberalized in early 1997. Agricultural prices were liberalized in February 1997; with the trade regime also substantially liberalized shortly afterwards, agricultural prices are now market-determined. In the industrial sector, most administered producer and retailer prices were liberalized by March 1997, although price controls were retained for a short list of goods supplied in monopoly markets, notably energy; these prices have subsequently been adjusted (in most cases by the Competition Office) in line with movements in the exchange rate and/or consumer price index.⁵ Fuel prices were deregulated in September 1998. Administered and regulated prices now account for about 14 percent of the CPI basket.⁶

12. Administered prices have grown sharply since 1997 (Table I.2). Large increases in electricity and heating prices reflect the phasing out of the dual pricing system, where low household prices were cross-subsidized by higher prices for other economic agents. Domestic thermal energy prices were increased sharply in 1999 to bring them closer to world prices.

³ These items included energy, iron and other ores, medicines, wood, bread, milk, railways, river and urban transport, post and telecommunications, other utilities, childcare, municipal services, and other government services and charges.

⁴ These items included milk and dairy products; wheat and (low quality) bread; pork, poultry and processed products; sugar; and sunflower oil. These items accounted for 55 percent of the food component of the household consumption basket.

⁵ The ordinance which provides for such increases is vaguely worded. In cases where the price is regulated by this ordinance but is not subject to review by the Competition Office—notably, telephone prices—the provider has taken full advantage of the weaknesses in the ordinance to increase prices.

⁶ This consists of 5 percent of prices regulated by ordinance (telecommunications, medicines, rents and radio and television subscriptions); 4 percent regulated by the Competition Office (railway, river and urban transport, post, and water); 4 percent by the independent electricity sector regulator ANRE (electric and thermal energy), and 1 percent by the independent natural gas sector regulator ANRGN. Responsibility for electricity pricing was transferred from the Competition Office to ANRE in mid-2000. Note that the share of administered prices in the CPI basket varies according to re-weightings of the basket; based on 1999 weights, this share would be about 10 percent.

C. Determinants of Inflation

13. Theoretical considerations suggest several variables to be included in an empirical study of inflation. Under certain stringent assumptions—notably, perfect wage and price flexibility, and a stable equilibrium real exchange rate—conventional economic theory suggests that money alone can explain inflation. However, relaxing each of these rather stringent assumptions introduces new potential explanators of inflation. Relaxing the assumptions of wage and price flexibility implies roles for unit labor costs and pricing policies respectively in explaining inflation; similarly, instability in the real exchange rate implies the exchange rate is also potentially relevant in explaining inflation.

14. Research on inflation in transition economies has highlighted both the role of traditional cost-push and demand-pull factors in generating and sustaining inflation, and also the effect of relative price adjustment in retarding disinflation.⁷ Each of these factors appears to have been present in Romania. Cost-push pressures have resulted from episodes of wage growth well in excess of productivity—owing fundamentally to a lack of financial discipline—as well as real depreciations of the leu. Demand-pull factors have included monetary accommodation of fiscal and/or quasi-fiscal deficits, again reflecting financial indiscipline and pervasive soft budget constraints at the enterprise level. Relative price adjustment has been especially protracted in Romania owing to the piecemeal and occasionally reversed process of price liberalization.

15. This section reviews the behavior of key variables associated with inflation in other transition economies: money and credit, wages and the exchange rate.

Money and credit

16. Figure I.2 shows the growth of M2, M2 including foreign currency deposits (M2X), and domestic credit. Growth in the monetary aggregates surged on a number of occasions in the 1990s when the National Bank of Romania (NBR) was forced to accommodate large fiscal and quasi-fiscal deficits, of loss-making state-owned enterprises in general and of the agriculture sector in particular. The most egregious case was the surge in money growth which peaked in late 1994, when the authorities launched a very large program of subsidized agricultural financing.⁸

17. Figure I.2 suggests that the relationship between money and prices was rather loose for much of the 1990s, though a positive correlation has become somewhat clearer over the past two years. Especially noteworthy is the low rate of inflation relative to money in the mid-1990s, and the much higher inflation rate in 1997. This would be consistent with the existence of a monetary overhang arising from the variety of price controls in effect through

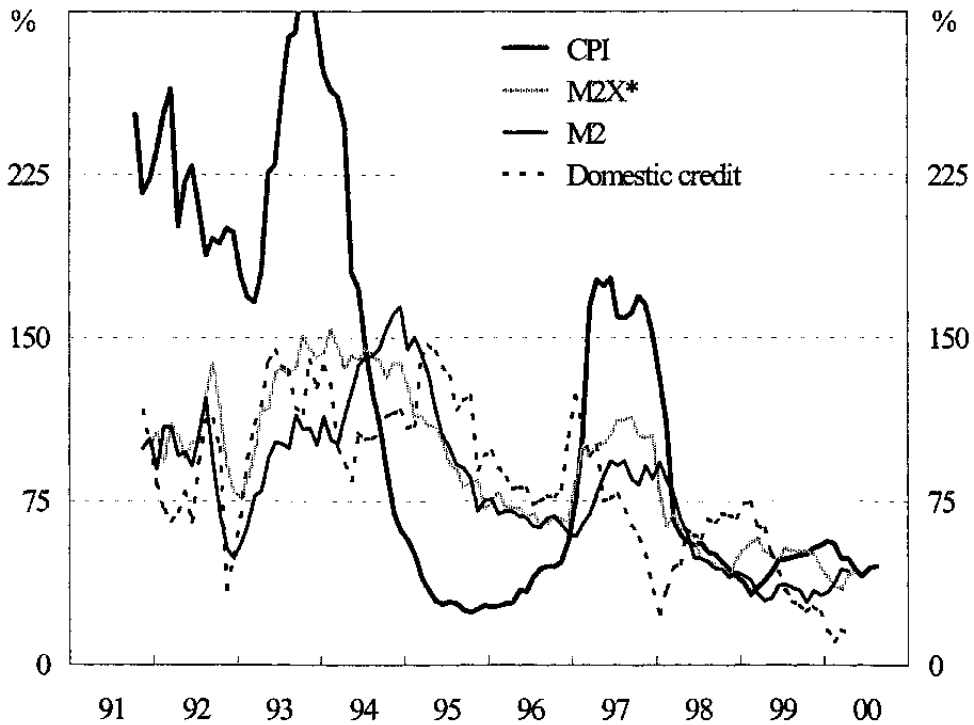
⁷ See for example Coorey, Mecagni and Offerdal (1998).

⁸ For further details see IMF (1997).

the mid-1990s, and which was apparently run down following the foreign exchange and price liberalizations in 1997.

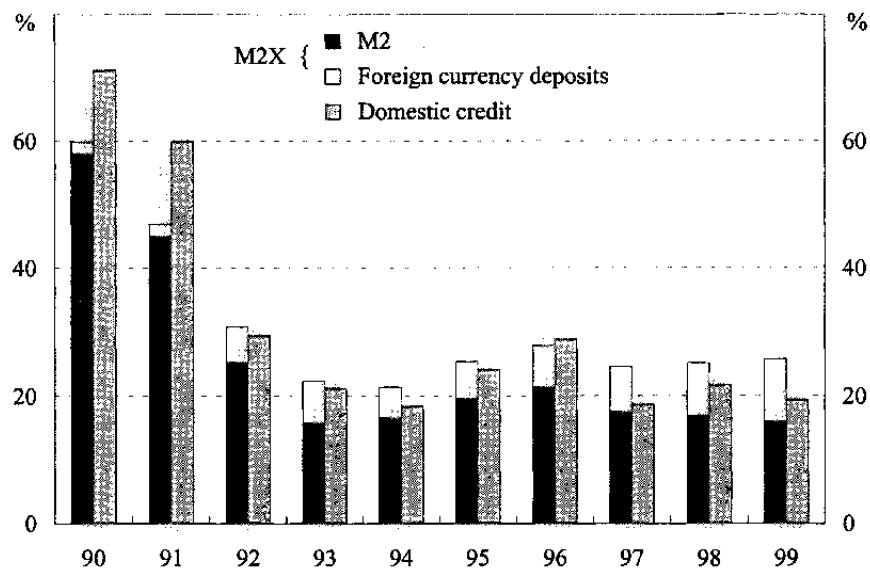
18. Money growth may not correlate highly with inflation because controls on price and exchange rate movements had severed the links through which inflationary effects may pass. Episodes of excessive money growth over the past decade led to a buildup of inflationary pressure, but the actual path of inflation was determined largely by policy decisions regarding the timing and magnitude of price liberalizations and exchange rate adjustments.

Figure I.2. Money, Credit, and Prices
Twelve-month-ended percentage change



* M2 plus foreign currency deposits.

Figure I.3. Demonetization
Percent of GDP



19. The high inflation rates relative to money growth in the early 1990s imply significant demonetization of the Romanian economy since the start of the transition (Figure I.3). The increasing share of foreign currency deposits in the monetary aggregates, though significant in itself, has only modestly countered the overall trend of demonetization.

20. Some remonetization took place between 1994 and 1996, but with several undesirable features which rendered it unsustainable. The OECD (1998) observes that the remonetization process funneled subsidies to loss-making sectors of the economy, in particular the agriculture and energy sectors, using NBR credits, which undermined the attempts of the central bank to reduce inflation.⁹ This policy was completely opposed to the authorities' stated intention of allowing market forces to determine the sectoral allocation of credit.

⁹ The OECD also notes that the remonetization enabled the authorities to inject special credits into two failed banks, Dacia Felix and Credit Bank, and thereby avoid having to resolve them.

Box I.1: Soft Budget Constraints and Inter-Enterprise Arrears

Soft budget constraints have taken a number of forms in Romania. One important form has been the soft credits extended to the agriculture sector, including NBR credits, especially in the mid-1990s. Another important manifestation of financial indiscipline, which has yet to be adequately addressed, has been inter-enterprise arrears. Inter-enterprise arrears were equivalent to 42 percent of GDP as at end-1999, and apart from a fall in 1997, have risen steadily each year from around 20 percent of GDP as at end-1994.

Some level of arrears might be inevitable in a demonetized economy such as Romania (Figure I.3), especially in the aftermath of demonetization in the early 1990s. Clearly there is a failure of financial intermediation in an economy in which credit is less than 20 percent of GDP, and the development of inter-enterprise credits is a natural response. Consequently, the question of when an inter-enterprise credit becomes an arrear is an important reporting issue, and the extent to which the arrears data include normal trade credits as well as overdue payments is not fully clear. Nevertheless the continuing increases in arrears since the mid-1990s reflect deeper financial indiscipline.

This problem has been particularly acute in the case of the major utilities – both in terms of the utilities' tax arrears to the government, and the arrears to the utilities of other enterprises such as nationally owned loss-making companies, and local utilities. Despite the scale of the utilities' losses and arrears, wages at the utilities remain some of the highest in Romania; in the December quarter of 1999, average wages at the three major utilities were 2.2 times the economy-wide average wage.

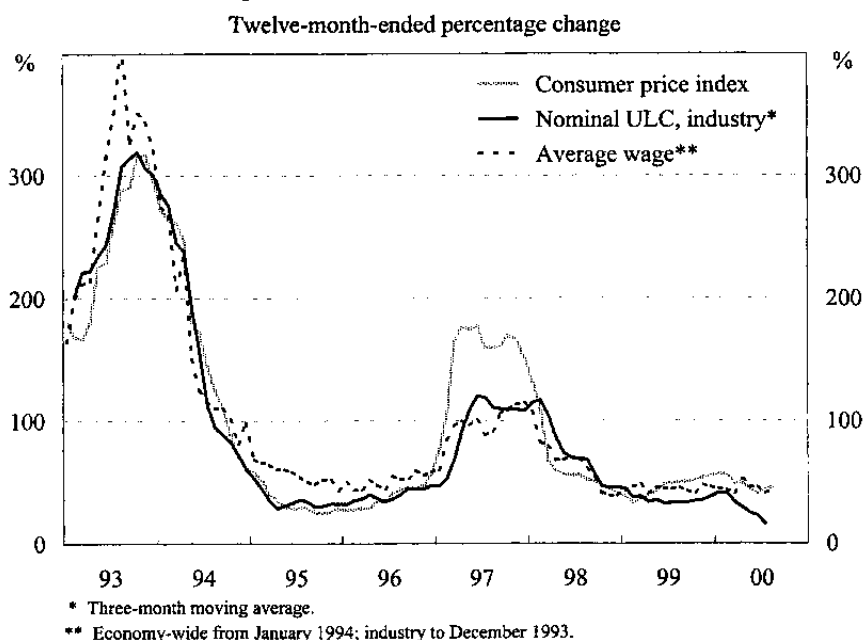
Soft budget constraints and weak corporate governance in the state sector have allowed episodes of faster wage growth, notably in 1995, 1996, and 1998. Consequently, wages in state-owned utilities and many loss-making companies are among the highest in the country. In the December quarter of 1999, average wages at the ten largest *regies autonomes* exceeded the economy-wide average wage by more than 60 percent.¹⁰ In turn, this complicates the process of restructuring. Workers with high-wage, low-productivity jobs – such as those in the mining and energy sectors – clearly face high opportunity costs from moving to higher productivity but lower wage jobs, and have strong incentives to resist restructuring.

Wages

21. Wage growth contributes to inflation in several ways. In general, wage increases which exceed increases in productivity *generate* inflationary pressures; large wage increases in response to an initial inflation shock contribute to inflationary inertia and hence *sustain* inflationary pressures. Additional effects operate when budget constraints are soft. Sahay and Végh (1996) note the role of wage bill increases in inducing monetary expansion via the expansion of credit to state enterprises and to the government.

¹⁰ A recent OECD study reported that Romanian employers facing competitive pressures were more likely to be concerned about controlling wage costs, and noted the apparent link between wage moderation and productivity across sectors (OECD, 2000).

Figure I.4. Wages and Prices

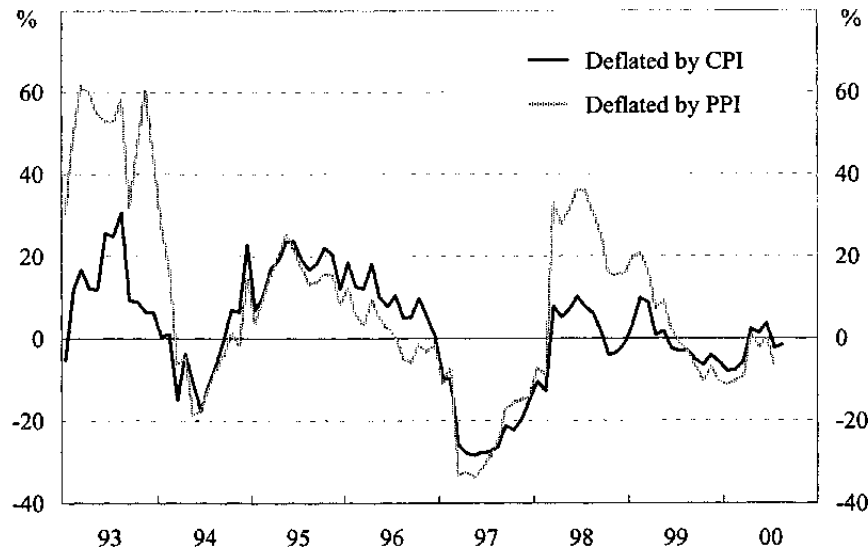


22. Figure I.4 shows growth in nominal average wages, and smoothed growth in nominal unit labor costs in industry. The extremely close correlation between growth in unit labor costs and consumer prices is striking, especially before 1997.

23. Figure I.5 highlights the volatility in real wages. Real wage growth was particularly strongly in 1995 and 1996, with high wage increases recorded in the state-owned *régies autonomes* (RAs) and commercial companies, despite the large losses recorded in these sectors. These wage increases were financed in part by a large accumulation of arrears – a non-monetary variant of the Sahay-Végh credit expansion (see Box I.2). Wages again grew strongly in 1998, led by increases in the budgetary sector and RAs. Although wage growth in 1998 would appear only modest if deflated by the CPI, *U.S. dollar* wages increased by over 30 percent, and wages deflated by the PPI rose by around 20 percent—against a background of a second year of deep recession.

24. In between periods of rapid growth, real wages fell significantly in 1994, even more sharply in 1997 (owing to the unexpectedly high inflation outcome), and more modestly in 1999–2000. Notably, each of these falls in real wages has presaged a period of significant progress in disinflation.

Figure I.5. Real Wages
Twelve-month-ended percentage change



Box I.2: Wage Policies

Policy efforts to contain wages have encountered difficulties. In the early 1990s, the authorities experimented with punitive tax penalties on wage bills in excess of a reference level; non-wage remuneration tended to increase in response. Tax-based incomes policies were abandoned in 1995, and no official wage policy was in place in 1996 (Oprescu, 2000).

In conjunction with the 1997 Stand-By Arrangement with the IMF, the authorities agreed to limit the growth of the average wage for 1997 compared with the *average wage* for the fourth quarter of 1996 to 75 percent of consumer price inflation over the same period, with the policy applying to the state sector, including the budgetary sector, "régies autonomes" and national companies, and loss-making commercial companies retained by the State Ownership Fund. The policy began to weaken by August 1997, with the ceilings not observed in the budgetary sector or by the régies autonomes, and wage growth picked up in 1998.

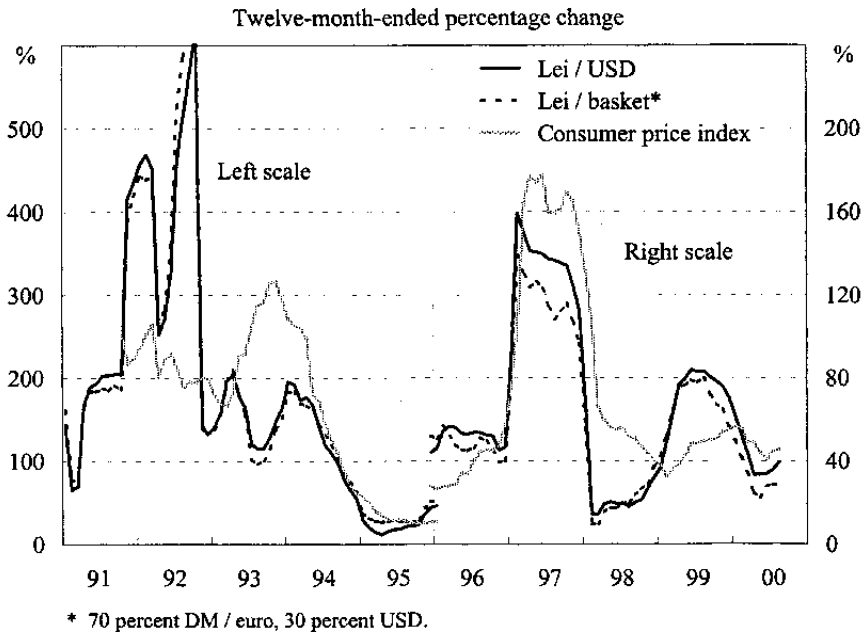
Wage policy was tightened in 1999 as one of the conditions of the 1999 (and now extended) Stand-By Arrangement, with a degree of success. The authorities undertook to limit the increase in the wage bill for the state budget sector to 28 percent in nominal terms over the whole of 1999, implying a 9 percent real decline based on then-projected inflation. The target for end-December 1999 was breached by nearly 5 percent, in part as a result of the authorities' decision to increase the defense/security sector wage bill by 80 percent. For the rest of the state sector, nominal wage bills in 1999 were restricted to four times their level in the December quarter of 1998. In the case of the RAs and national companies, this policy delivered a 20 percent reduction in these companies' overall real wage bill.

Under the extended Stand-by Arrangement, the authorities undertook to limit the increase in the nominal wage bill of the state sector to 40 percent in 2000, implying an increase of 1 percent in real terms on the basis of the originally targeted rate of inflation. Within this overall target, the real wage bill for the budgetary sector was envisaged to rise by 12 percent and that for the rest of the state sector to decline by 10 percent. The authorities justified this differentiated treatment of employees within the state sector on equity as well as efficiency grounds, with wages in the utilities among the highest in the country, and despite cuts last year, still almost twice as high as those in the budgetary sector in early 2000. Recent slippages in wage policy imply that the state sector wage bill is now likely to increase by 58 percent in 2000.

Exchange rate

25. Figure I.6 shows the evolution of the leu / U.S. dollar exchange rate, a trade-weighted nominal exchange rate (70 percent deutsche mark/euro, 30 percent U.S. dollar), and consumer prices. Figure I.6 suggests that consumer prices are highly responsive to movements in the exchange rate, although with some lag.¹¹ The large depreciation through late 1998 and early 1999 appears to have contributed strongly to the more gradual pickup in inflation through 1999.

Figure I.6. Exchange Rate and Prices



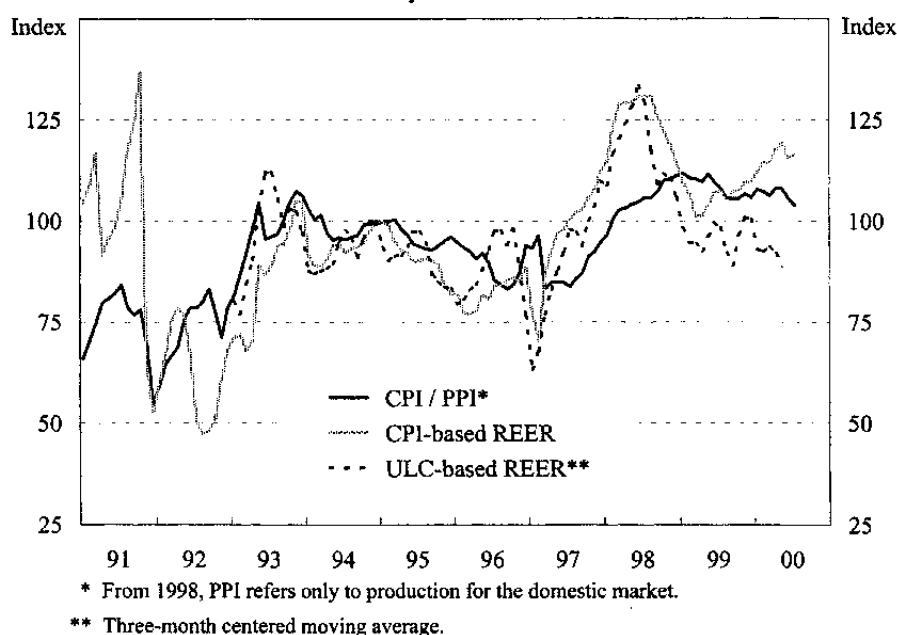
26. The erratic behavior of the exchange rate reflects a series of policy reversals, especially in the early to mid-1990s. The IMF (1997) reports that notwithstanding frequent commitments to a flexible exchange rate, the authorities repeatedly intervened to maintain the exchange rate at overvalued levels, effectively as a subsidy to energy-intensive enterprises, only to be forced into allowing periodic depreciations as reserves ran low. The foreign exchange market was subject to particularly severe distortions in 1996; in response to a sharp depreciation of the leu in early 1996, the authorities withdrew the licenses of all foreign exchange dealers except for four state-owned banks. Attempts to set the exchange

¹¹ For this reason, the *absence* of a lag in early 1997 between movements in the exchange rate and in consumer prices is noteworthy. The sharp depreciation coincides with an even sharper rise in inflation as a result of the near-simultaneous liberalizations of the foreign exchange market and of prices for staple goods, both of which had been distorted by the combination of administrative controls and the monetary overhang.

rate by administrative means were abandoned following the 1996 election, and the exchange rate is now a managed float.

27. Figure I.7 highlights the considerable volatility of Romania's real effective exchange rate.¹² Coorey et al. (1998) note that a real appreciation can have different implications for inflation depending on the nominal exchange rate regime: real appreciation associated with a stable nominal exchange rate generally implies capital inflows, monetary expansion and higher inflation; but when the nominal exchange rate is flexible, real appreciation is generally associated with nominal appreciation—or in the case of Romania, slower nominal depreciation—implying downward pressure on inflation.

Figure I.7. Measures of the Real Exchange Rate
January 1995 = 100



¹² The volatility of the real exchange rate implies that the influence of Balassa-Samuelson effects (i.e. changes in the relative prices of traded and non-traded goods arising from differential productivity growth in the traded and non-traded sectors of the economy) is likely to be second-order. Moreover, the CPI / PPI ratio shown in Figure I.7 is a poor proxy for the real exchange rate in the case of Romania. While this ratio is commonly used because traded goods typically account for a greater share of producer prices than of consumer prices, the Romanian PPI *excludes* exported production from January 1998 and hence has a disproportionately high share of non-traded production.

D. Empirical Analysis

28. While casual inspection yields considerable information on the relationships between inflation and its determinants, econometric analysis offers additional insights. The analysis uses vector autoregression (VAR) techniques, which are appealing in this context because they require no a priori assumptions about the exogeneity of the policy and other variables—exogeneity is instead *tested* below—and they avoid problems of simultaneity bias, given the potential for contemporaneous relationships among the variables. The analysis uses the variables described in section C, as well as an activity variable to complete the system:

Consumer price index—CPI
Industrial production—IP (proxy for activity)
Unit labor costs in industry—ULC
Nominal exchange rate—NER (lei /U.S. dollar), NTWI (weighted average of lei against U.S. dollar and DM/euro)
Monetary aggregates—M2, M2X (including foreign currency deposits), and CRED (domestic credit)

All variables have been logged and run from January 1991 to March 2000.¹³

29. The first step in the analysis is to determine the order of integration of the variables, in order to avoid misspecifying the model. Results from a variety of unit root tests (Appendix I) indicate on balance that each of the variables is $I(1)$, i.e. integrated of order 1.¹⁴

30. The non-stationarity of the data motivates the use of the multivariate Johansen procedure to detect the presence of long-run stationary (“cointegrating”) relationships among the non-stationary variables. An advantage of the Johansen procedure is that it also allows the researcher to investigate the speed of adjustment to long-run equilibrium, and so to test for (weak) exogeneity of the explanatory variables (if the speed of adjustment of a variable is not significantly different from zero, the variable is weakly exogenous).¹⁵ The procedure is briefly explained in Appendix II.

¹³ Owing to data limitations, a measure of relative price variability—potentially a very important variable—has not been included in the econometric analysis.

¹⁴ The results need to be interpreted with caution, owing to the low power of the tests, especially in the presence of structural breaks. Some results are contradictory. Several variables, including the CPI, unit labor costs and the money and credit variables, could be $I(2)$; the exchange rate variables could be $I(0)$ about a trend. On balance, however, the tests justify proceeding on the assumption that the variables are each $I(1)$.

¹⁵ Ericsson (1992) discusses the concepts of weak, strong and super exogeneity and their relationship to cointegration analysis.

31. Tests for cointegration were performed using unrestricted 5-variable VARs, using the various measures of exchange rates and monetary aggregates, with four lags and eleven centered seasonal dummies. The test results shown in Appendix II provide evidence for the existence of one cointegrating relationship across a range of specifications.

32. Each VAR was estimated with the constraint of one cointegrating relationship to give estimates of the long-run relationships, which were then tested for significance, or "exclusion" from the long-run relationship. In most cases, the CPI and ULC were found to be most strongly significant; also, weak exogeneity was usually rejected for the CPI, implying that the CPI adjusts to shocks to the rest of the system. The exchange rate was found to be significant when a structural dummy in 1997 was included. The monetary aggregates (and unsurprisingly, activity) were not found to be significant; this is consistent with the interpretation that the linkages between prices and monetary aggregates have been weakened by periods of monetary overhang and price controls, as well as unstable money demand.

33. To narrow the focus on the relationships between the CPI, ULC and exchange rate, three-variable VARs were estimated. The results are sensitive to the inclusion of the dummy in 1997, but are intuitively plausible when the dummy is included. All three variables are significant and correctly signed; exogeneity cannot be rejected for the exchange rate and unit labor costs, but is rejected for the CPI. Note that the finding of long-run exogeneity for unit labor costs does not imply that wages do not react to inflation in the short run; but it does imply that in the long run, wages are determined by real instead of nominal factors. This model was reestimated holding the exchange rate and unit labor costs exogenous, to yield the following long-run vector:

$$LCPI = 0.156 LNTWI + 0.846 LULC$$

34. These parameters appear plausible, but should still be treated with some caution. Figure I.8 shows that the model does quite a reasonable job of explaining inflation ($R^2=0.672$). However, tests on the residual properties and the structural stability of the model (Figure I.9) point to problems with the parameters of the model in early 1997. This is not very surprising given the extent of structural changes at this time, including the liberalization of prices and the exchange rate. Unfortunately, the sample period since 1997 is still very short, and does not yet lend itself to reliable modeling.

35. Because of the susceptibility of the levels data to structural breaks, it is also useful to examine the differenced variables as well, to shed more light on the shorter-run dynamics.¹⁶ Results of Granger causality among the variables are reported in Table I.3.

¹⁶ Ross (1998) uses a similar econometric approach to analyze inflation in Slovenia.

Figure I.8. Romania: Estimates of CPI Determinants, 1991-99

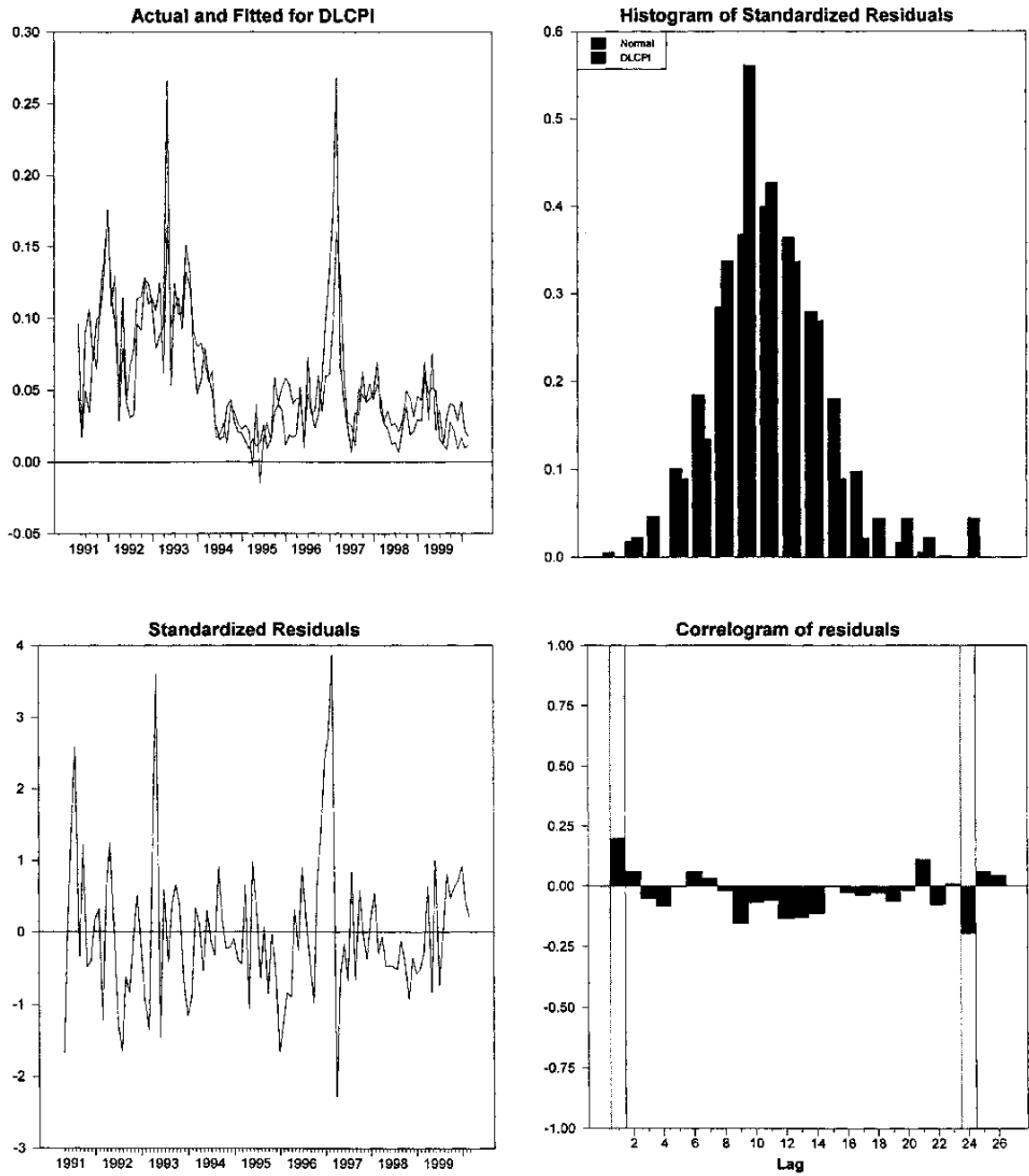
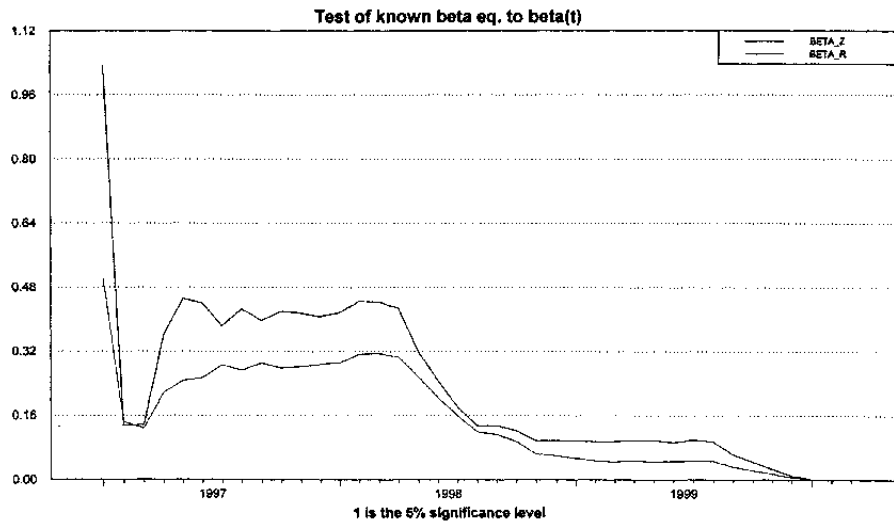
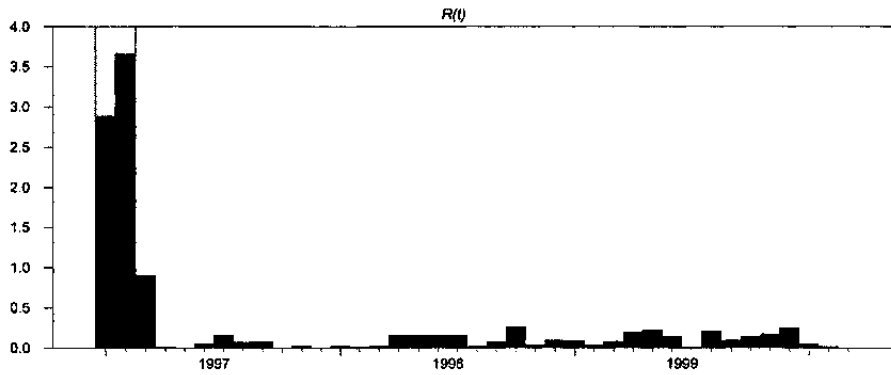
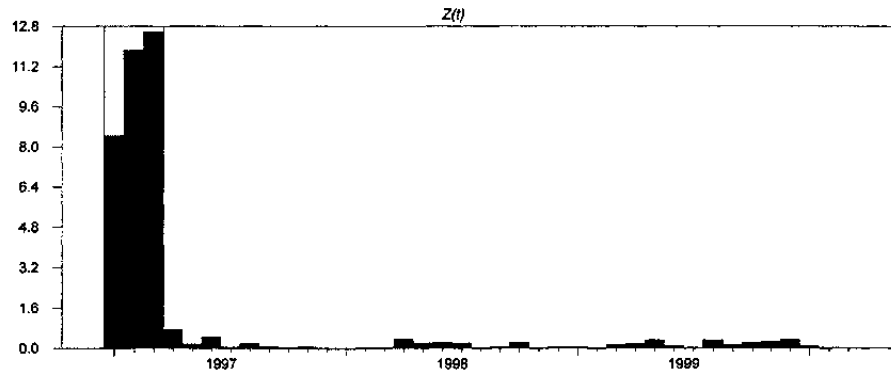


Figure I.9. Romania: Residual Properties of the CPI Estimate, 1997-99

1-step prediction test



36. Several results are particularly noteworthy, and hold up across most lags. First, there is strong evidence that unit labor costs growth and depreciation of the exchange rate both Granger cause inflation; also, while lei-only M2 does not appear to Granger cause inflation, there is strong evidence that broader monetary aggregates including foreign currency deposits do Granger cause inflation. Second, there is strong evidence that inflation Granger causes unit labor costs, confirming the bidirectional causality between wages and prices at least in the short run. Finally, there is also some evidence that unit labor costs Granger cause M2 and M2X, consistent with the hypothesis that money growth has accommodated growth in wages and prices.

37. Variance decompositions and impulse response functions have been obtained from a 4-lag unrestricted VAR. The VAR is identified using the Choleski decomposition, which implies—unlike in the Johansen procedure—that the ordering of the variables can affect the results significantly.¹⁷ The ordering shown here assumes that movements in the exchange rate and unit labor costs feed into inflation, which is then accommodated by money.

38. Table I.4 shows that substantial proportions of the forecast error variation in inflation can be attributed to innovations in unit labor costs, and that the reverse is also true, as expected on the basis of the Granger causality tests. Money also explains a significant proportion of the forecast error variance in inflation. These results appear relatively robust to the ordering of the VAR. However, results for the exchange rate do appear sensitive to the VAR ordering; the result that much of the forecast error variance in M2X is explained by the exchange rate but not vice versa is reversed when the VAR is reordered.

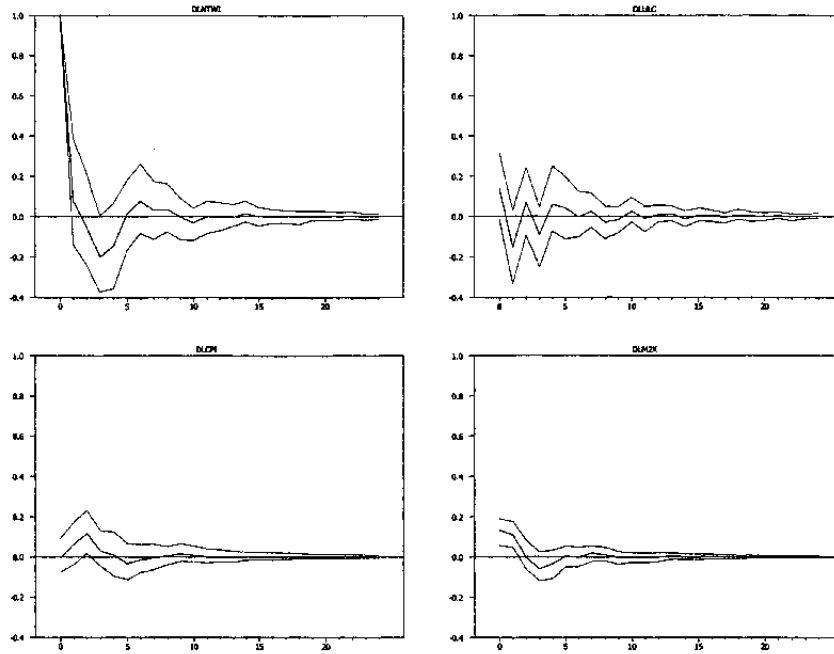
39. Figure I.10 shows impulse response functions (IRFs) to a one standard deviation structural shock, with bootstrapped standard error bands.¹⁸ Again, the clearest results appear to be for inflation and unit labor costs. Inflation responds to unit labor costs within one month, with the response persisting for over a year. Unit labor costs tend to respond sharply to innovations in inflation within about two months. Inflation also appears to respond to innovations in money with a lag of about two months, and to innovations in the exchange rate in about three months, though these responses decay more quickly than responses to unit labor costs.

¹⁷ The Choleski factorization eliminates the cross-equation residual correlations for a given innovation series, *and* prior series in the ordering.

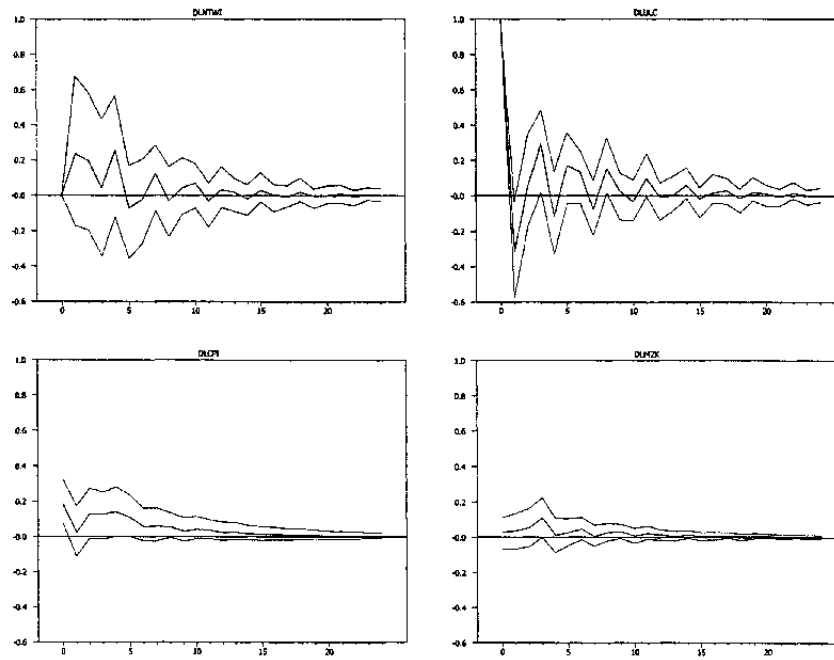
¹⁸ Some of the IRFs are quite jagged, notably for unit labor costs. Adding an activity variable (IP) did not greatly improve the properties of the IRFs.

Figure I.10. Impulse Response Functions
One standard-deviation structural shock, ± 2 S.E.

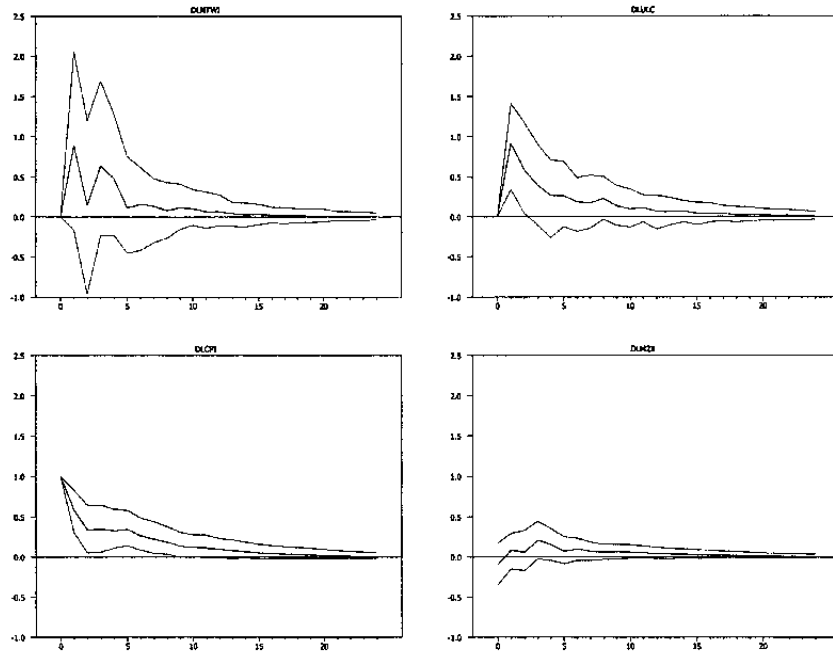
Effects of a Shock to DLNTWI



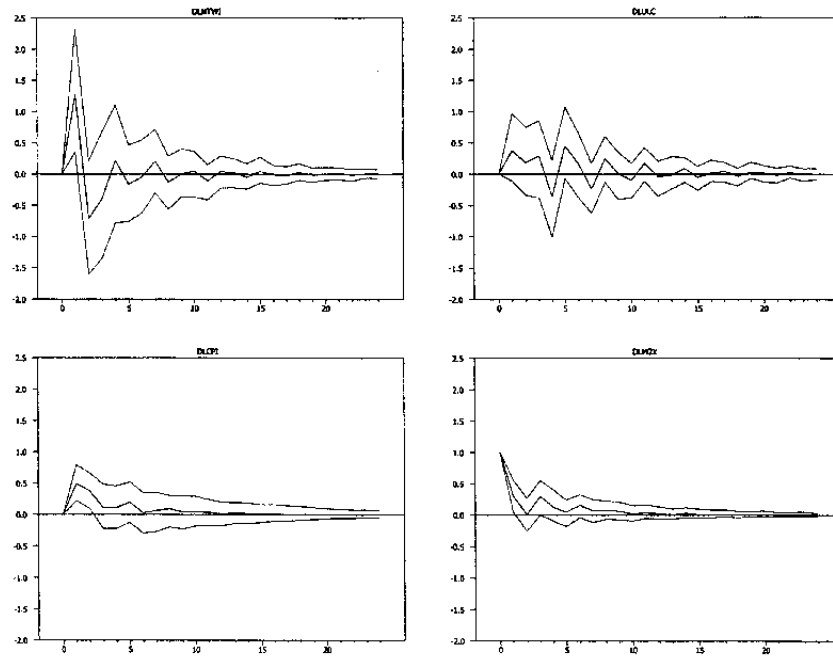
Effects of a Shock to DLULC



Effects of a Shock to DLCP1



Effects of a Shock to DLM2X



E. Conclusions

40. **Inflation in Romania has reflected a number of causes, the most fundamental of which have been lax macroeconomic policies and widespread financial indiscipline.**

Inflation has been generated by monetary accommodation of large fiscal and quasi-fiscal deficits, and by rapid wage growth unsupported by productivity and financed by arrears; and it has been sustained by inflation inertia and protracted relative price adjustment.

41. **The econometric evidence points to the role of unit labor costs in driving inflation.** Reading through the statistical noise, unit labor costs emerge as the most plausible explainer of inflation in the long-run, at least in a proximate sense. It is clear that wages also respond to inflation in the shorter run, highlighting the role of inertia in sustaining inflation. But it is also true that in the long run, real wages are determined, whether efficiently or inefficiently, by real factors. The combination of wage levels well above those justified by productivity (even if those wages are low in absolute terms), especially in conjunction with widespread overstaffing—and more fundamentally, the failure to enforce financial discipline—has clearly done much to fuel inflation.

42. **There is also evidence of the increasing importance of the exchange rate for inflation.** Though somewhat sensitive to specification, the econometric evidence generally confirms the importance of the exchange rate for inflation—as does, perhaps even more persuasively, the pickup in inflation through 1999. This relationship should emerge even more clearly over the next few years, as more data becomes available for the period following the liberalizations of the exchange rate and of prices, and the Romanian economy continues to open up.

43. **The correlation between money growth and inflation is less visible, owing to price controls and fluctuations in the real exchange rate.** There is little statistical evidence of a stable relationship between money growth and inflation. However, a plausible reason for this is the monetary overhang present at the start of the 1990s, and which built up again in the mid-1990s ahead of the last round of price liberalization; another plausible reason is the fluctuation of the real exchange rate. With the major price distortions now eliminated, the increasing correlation between money growth and inflation over the past few years suggests that this traditional relationship is now be reasserting itself.

44. **Romania's experience highlights the need to unburden monetary policy as a prerequisite for a sustained reduction in inflation.** Although inflation is ultimately a monetary phenomenon, pressures for accommodating fiscal and quasi-fiscal deficits proved irresistible on several occasions through the past decade. If Romania is to make the progress in disinflation envisaged in its medium-term strategy, monetary policy needs greater support from incomes and fiscal policies, and greater progress in enforcing financial discipline.

Table I.1. Measures of Inflation, 1994–99						
(Percentage change, period average)						
	1994	1995	1996	1997	1998	1999
Consumer price index	136.7	32.3	38.8	154.8	59.1	45.8
Producer price index	140.5	35.1	49.9	156.5	33.2	42.2
GDP deflator	139.0	35.3	45.3	147.2	53.9	46.4
Private consumption deflator	141.8	36.7	43.6	156.8	49.7	45.8
Source: National Commission for Statistics.						

Table I.2. Developments in Administered Prices, 1997–99				
Percentage change, end-period				
	1999 CPI weights	1997	1998	1999
Administered prices	9.3	227.6	77.6	88.1
<i>of which:</i>				
Electricity, gas and heating	3.6	209.2	88.5	108.3
Water and sewerage	2.1	198.1	62.6	63.9
Public transport	1.6	202.1	39.5	51.3
Post and telecommunications	2.1	345.6	98.2	112.8
“Core” prices	90.7	144.7	36.0	51.2
Total CPI	100.0	151.4	40.6	54.8
Source: National Commission for Statistics; and staff estimates.				

Table I.3: Granger Causality Tests

	Lag length in number of months					
	1	2	3	4	5	6
CPI						
IP to CPI	1.25	3.20 **	0.87	0.86	1.44	1.09
ULC to CPI	7.00 *	6.50 *	3.50 **	2.87 **	2.44 **	2.08 ***
NER to CPI	2.77 ***	3.49 **	3.70 **	3.88 *	3.32 *	3.02 **
NTWI to CPI	2.38	3.27 **	3.61 **	3.43 **	2.85 **	2.65 **
M2 to CPI	0.13	2.27	2.28 ***	1.00	0.95	1.29
M2X to CPI	9.85 *	6.48 *	10.16 *	6.71 *	5.70 *	5.88 *
CRED to CPI	12.63 *	6.95 *	7.45 *	5.82 *	4.43 *	3.78 *
IP						
CPI to IP	1.33	0.82	2.04	1.42	1.34	1.12
ULC to IP	0.35	0.02	1.18	1.02	0.87	1.56
NER to IP	0.01	0.75	0.61	0.59	1.65	1.79
NTWI to IP	0.02	0.66	0.58	0.50	1.38	1.62
M2 to IP	5.02 **	4.55 **	3.21 **	2.77 **	2.35 **	2.18 ***
M2X to IP	5.37 **	2.34	1.66	1.20	1.38	1.30
CRED to IP	13.81 *	6.32 *	4.50 *	3.04 **	3.06 **	2.57 **
ULC						
CPI to ULC	37.51 *	19.56 *	9.74 *	6.85 *	5.83 *	2.97 **
IP to ULC	2.98 ***	1.73	2.29 ***	3.67 *	3.30 *	2.57 **
NER to ULC	0.76	0.66	1.98	2.42 ***	2.24 ***	0.97
NTWI to ULC	0.29	0.50	1.68	2.19 ***	2.10 ***	0.90
M2 to ULC	3.99 **	2.17	1.22	1.37	1.18	1.39
M2X to ULC	0.31	0.84	0.15	0.16	0.71	0.35
CRED to ULC	0.09	0.01	0.38	0.68	1.15	0.46
NER						
CPI to NER	1.56	1.15	1.66	1.84	2.05 ***	1.57
IP to NER	0.66	1.25	1.60	1.42	1.14	0.87
ULC to NER	0.69	2.34	2.43 ***	2.38 ***	2.55 **	2.87 **
M2 to NER	0.00	1.39	2.48 ***	1.87	2.57 **	3.63 *
M2X to NER	1.02	2.09	3.73 **	2.66 **	2.62 **	3.60 *
CRED to NER	2.18	2.53 ***	2.06	1.46	1.15	0.97
NTWI						
CPI to NTWI	1.21	0.83	1.40	1.66	1.86	1.46
IP to NTWI	0.92	1.54	1.68	1.43	1.13	0.83
ULC to NTWI	0.86	2.20	2.19 ***	2.22 ***	2.58 **	2.84 **

Table I.3: Granger Causality Tests

	Lag length in number of months					
	1	2	3	4	5	6
M2 to NTWI	0.03	1.87	2.86 **	2.11 ***	2.81 **	3.97 *
M2X to NTWI	1.29	2.66 ***	3.96 **	2.71 **	2.68 **	3.73 *
CRED to NTWI	2.14	2.56 ***	2.08	1.39	1.07	0.92
M2						
CPI to M2	1.87	1.04	2.56 ***	1.88	3.03 **	3.04 **
IP to M2	0.31	0.90	1.29	1.13	0.48	0.62
ULC to M2	0.19	0.56	2.19 ***	1.65	2.49 **	2.93 **
NER to M2	4.94 **	2.23	2.31 ***	1.35	0.99	1.37
NTWI to M2	4.61 **	2.12	2.17 ***	1.25	0.97	1.31
CRED to M2	0.02	1.00	2.04	2.09 ***	1.98 ***	1.88 ***
M2X						
CPI to M2X	3.52 ***	2.74 ***	3.39 **	2.91 **	1.83	1.67
IP to M2X	1.48	1.36	1.78	1.40	0.80	0.70
ULC to M2X	1.28	0.92	2.95 **	2.08 ***	2.27 ***	2.59 **
NER to M2X	6.40 **	2.74 ***	3.90 **	2.74 **	1.84	2.46 **
NTWI to M2X	5.75 **	2.52 ***	3.80 **	2.66 **	1.82	2.32 **
CRED to M2X	0.13	0.88	0.88	0.95	0.89	0.84
CRED						
CPI to CRED	0.00	0.55	0.42	0.52	0.29	0.40
IP to CRED	5.64 **	2.97 ***	2.35 ***	1.66	1.20	1.17
ULC to CRED	2.40	1.40	2.02	2.35 ***	1.81	1.56
NER to CRED	32.70 *	21.23 *	14.99 *	20.01 *	15.39 *	12.46 *
NTWI to CRED	34.85 *	21.74 *	15.28 *	19.13 *	14.96 *	12.07 *
M2 to CRED	7.91 *	4.31 **	3.85 **	3.19 **	4.29 *	3.59 *
M2X to CRED	9.66 *	5.54 *	4.28 *	5.36 *	5.27 *	4.27 *

Standard F-tests; (*), (**), (***) indicate rejection of the null hypothesis at significance levels of 1, 5, and 10 percent, respectively. The null hypothesis is "no Granger causality".

Table I.4: Variance Decompositions					
Variable	Lags	DLNTWI	dLULC	dLCPI	DLM2X
dLNTWI	1	86.6	1.5	4.9	7.0
	6	79.5	3.8	7.9	8.8
	12	78.7	4.3	8.1	8.9
	18	78.6	4.4	8.1	8.9
	24	78.6	4.4	8.1	8.9
dLULC	1	9.6	75.4	13.4	1.6
	6	10.5	65.8	18.5	5.2
	12	10.3	64.5	19.0	6.2
	18	10.3	64.3	19.1	6.2
	24	10.3	64.3	19.1	6.3
dLCPI	1	3.2	8.6	78.3	9.9
	6	9.5	15.1	64.6	10.8
	12	9.1	15.6	64.8	10.5
	18	9.0	15.7	64.9	10.4
	24	9.0	15.7	64.9	10.4
dLM2X	1	33.9	0.7	1.4	64.0
	6	31.4	5.6	6.6	56.5
	12	30.8	6.1	7.7	55.5
	18	30.7	6.2	7.9	55.3
	24	30.7	6.2	7.9	55.3

Unit Root Tests

Variable	ADF Tests			KPSS Tests		Result
	Lags		ADF(t)	ADF(Z)	4 lags	
LCPI	1	TC	-2.02	-3.97	τ	0.43 *
	1	C	-3.25 **	-1.50	μ	2.23 *
DLCPI	0	TC	-6.51 *	-62.32 *	τ	0.12
	1	C	-4.05 *	-33.90 *	μ	0.83 *
LIP	12	TC	-2.36	-39.35 *	τ	0.26 *
	12	C	-2.20	-26.67 *	μ	0.64 **
DLIP	11	TC	-2.06	-16.50	τ	0.09
	20	C	-2.63 ***	824.49	μ	0.10
LULC	18	TC	-2.37	-8.48	τ	0.46 *
	18	C	-2.45	-1.88	μ	2.20 *
DLULC	17	TC	-2.67	34.49	τ	0.11
	14	C	-1.41	-6.88	μ	0.86 *
LWAG	20	TC	-4.58 *	-13.59	τ	0.50 *
	20	C	-3.12 **	-1.83	μ	2.24 *
DLWAG	19	TC	-2.34	39.82	τ	0.11
	18	C	-1.05	-3.79	μ	0.90 *
LNER	7	TC	-3.96 **	-11.52	τ	0.40 *
	7	C	-3.08 **	-2.34	μ	2.20 *
DLNER	6	TC	-3.54 **	-76.12 *	τ	0.09
	6	C	-2.81 ***	-29.22 *	μ	0.55 **
LNTWI	7	TC	-4.19 *	-10.09	τ	0.43 *
	7	C	-3.62 *	-2.53	μ	2.18 *
DLNTWI	6	TC	-3.81 **	-116.19 *	τ	0.08
	6	C	-2.82 ***	-30.62 *	μ	0.59 **
LM2	12	TC	-0.82	-6.69	τ	0.49 *
	12	C	-1.06	-0.63	μ	2.32 *
DLM2	11	TC	-1.73	-9.74	τ	0.11
	11	C	-1.46	-5.09	μ	0.37 ***
LM2X	12	TC	-0.35	-1.31	τ	0.53 *
	12	C	-1.55	-0.83	μ	2.32 *
DLM2X	12	TC	-1.80	11.90	τ	0.10
	11	C	-0.98	-3.01	μ	0.49 **
LCRED	12	TC	0.73	1.95	τ	0.48 *
	12	C	-1.75	-0.82	μ	2.32 *
DLCRED	11	TC	-2.40	-42.22 *	τ	0.10
	11	C	-1.55	-10.28	μ	0.27

The Johansen Procedure

This study uses the Johansen and Juselius (1990, 1992) procedure to test for cointegrating vectors in multivariate models.

The procedure is based on the following p -dimensional VAR with k lags:

$$X_t = A_1 X_{t-1} + \dots + A_k X_{t-k} + \mu + \psi D_t + \varepsilon_t, \quad t = 1, \dots, T \quad (\text{AII.1})$$

where X_t is the $p \times 1$ vector of variables of interest, D_t is an (optional) matrix of centered seasonal dummies and ε_t is a vector of Gaussian i.i.d. errors. This levels model may be rewritten in error-correction form:

$$\begin{aligned} \Delta X_t = & \Gamma_1 \Delta X_{t-1} + \dots + \Gamma_{k-1} \Delta X_{t-k+1} \\ & + \Pi X_{t-k} + \mu + \psi D_t + \varepsilon_t, \quad t = 1, \dots, T \end{aligned} \quad (\text{AII.2})$$

where the Γ and Π matrices are given by:

$$\Gamma_i = - \left[I - \sum_{i=1}^{k-1} \pi_i \right] \quad (\text{AII.3})$$

$$\text{and } \Pi = - \left[I - \sum_{i=1}^k \pi_i \right] \quad (\text{AII.4})$$

Under the hypothesis of cointegration, the $p \times p$ matrix Π contains information about the long-run relationships among the variables in X_t . This hypothesis will depend on the rank r of Π .

There are three possibilities to consider:

- (i) r may be full, i.e. the rank of Π is equal to p . In this case, all the variables of X_t are stationary, and a standard VAR should be estimated in levels. In general, this will not occur when one or more of the variables is I(1).
- (ii) r is zero, i.e. Π is a null matrix. In this case, no long-run relationships exist among the variables, and the VAR must be estimated in differences.
- (iii) r is between 0 and p , and represents the number of cointegrating vectors among the variables in X_t . This implies that there exist $p \times r$ matrices α and β such that $\Pi = \alpha\beta'$, where β is a matrix of r cointegrating vectors, and α is a matrix of adjustment coefficients. Even though the elements of X_t may be non-stationary, the cointegrating vectors represent linear combinations of these elements which are stationary, i.e. $\beta'X_t$ is stationary.

Johansen and Juselius have devised two likelihood ratio tests to determine the rank of Π . The first test is the trace test, which tests the hypothesis that $r \leq p$ against the general alternative of stationarity. The trace statistic is given by:

$$Trace = -T \sum_{i=r+1}^p \ln(1 - \hat{\lambda}_i) \quad (AII.5)$$

The second test is the maximal eigenvalue test, which tests the null hypothesis of at most r cointegrating vectors against the alternative of $r+1$ cointegrating vectors. The maximal eigenvalue test statistic is given by:

$$\lambda_{\max} = -T \ln(1 - \hat{\lambda}_{r+1}) \quad (AII.6)$$

Critical values for these tests have been generated by Osterwald-Lenum (1992); updated critical values for the trace tests appear in Hansen and Juselius (1995).

If cointegration is found and the cointegrating vectors β are estimated, the significance of the coefficients of β may then be tested by additional likelihood ratio tests. Not all of the variables in the model need be important in the long-run relationships, and so each variable may be tested for *exclusion*. The test takes the form of the restriction $\beta_i = 0$ for the i th variable. The test statistic is defined as:

$$LR = T \sum_{i=1}^r \ln[(1 - \tilde{\lambda}_i)/(1 - \hat{\lambda}_i)] \quad (AII.7)$$

where r is the number of cointegrating vectors, and $\tilde{\lambda}_i$ and $\hat{\lambda}_i$ are the eigenvalues from the restricted and unrestricted estimates of β respectively. The test statistic is distributed as χ^2 with the degrees of freedom equal to the number of restrictions.

The α matrix contains the "adjustment" vectors, which describe the speed with which the dependent variables adjust to long-run equilibrium. The variables of the model may then be tested for *exogeneity*, by testing the restriction $\alpha_j = 0$ for the j th variable, in a test procedure similar to the exclusion test. If this restriction cannot be rejected for a given variable, then that variable will be weakly exogenous to the long-run relationship, since it will not adjust to shocks to other variables.

Tests for cointegration were performed using unrestricted 5-variable VARs, using the various measures of exchange rates and monetary aggregates, with four lags and eleven centered seasonal dummies. The tests were performed with and without a trend in the cointegrating space. Tests were also performed including a structural break in February 1997.¹⁹ The maximum eigenvalue statistic and the trace statistic provide evidence for the existence of one cointegrating relationship across a range of specifications (Tables AII.1 and AII.2).

¹⁹ A motivation for the inclusion of a trend could be as a possible correction for omitted variable bias, for example because of relative price variability. Note also that the inclusion of dummy variables (other than seasonal dummies) can change the distribution of the Johansen test statistics; accordingly, the significance of the test results including the structural break should therefore be regarded as approximate only.

Each VAR was estimated with the constraint of one cointegrating relationship to give estimates of the long-run relationships (the coefficients of the “ β vector”), which were then tested for significance, or “exclusion” from the long-run relationship (Tables AII.3 and AII.4). In most cases, exclusion hypotheses were generally rejected most strongly for the CPI and ULC; also, weak exogeneity was usually rejected for the CPI. In general, exclusion could not be rejected for the exchange rate in the absence of a structural dummy in 1997, but was rejected when the dummy was included. Exclusion could not be systematically rejected for the monetary aggregates or activity.

To narrow the focus on the relationships between the CPI, ULC and exchange rate, three-variable VARs were estimated:

Model A	β	LR test	α	LR test	Model B	β	LR test	α	LR test
		$H^0: \beta_i=0$		$H^0: \alpha_j=0$			$H^0: \beta_i=0$		$H^0: \alpha_j=0$
LNTWI	-0.020	0.01	0.075	0.30	LNTWI	-0.147	3.88**	0.254	0.94
LULC	-1.097	5.44**	0.192	6.42**	LULC	-0.868	13.23*	0.252	2.42
LCPI	1.000	5.34**	-0.022	0.29	LCPI	1.000	13.99*	-0.263	9.42*

(*) and (**) indicate rejection of the null hypothesis at significance levels of 1 and 5 percent, respectively.

The results are sensitive to the inclusion of the dummy. Without the dummy (model A), exclusion cannot be rejected for the exchange rate, and exogeneity cannot be rejected for the CPI—in other words, the CPI helps explain unit labor costs but is not itself explained.

However, including the dummy (model B) yields intuitively plausible results. Rejection can be excluded for all three variables, which are correctly signed; exogeneity cannot be rejected for the exchange rate and unit labor costs, but is rejected for the CPI. Note that long-run exogeneity for unit labor costs does not imply that wages do not react to inflation in the short run; but it does imply that in the long run, wages are determined by real instead of nominal factors.

This model was reestimated holding the exchange rate and unit labor costs exogenous, to yield the following long-run vector:

$$LCPI = 0.156 LNTWI + 0.846 LULC$$

These parameters appear plausible, and Figure I.8 shows that the model does quite a reasonable job of explaining inflation ($R^2=0.672$). However, there is some evidence of non-normal residuals, as well as of first-order autocorrelation. Moreover, recursively estimated one-step ahead prediction tests and tests for constancy of the long-run parameters (Figure I.9) point to problems with the parameters of the model in early 1997, probably reflecting the price liberalization episode in early 1997.

Table AII.1. Tests for Cointegration, Unrestricted Model

Model 1a	No. of vectors	Λ -max	Trace	Model 1b (w/ trend)	No. of vectors	λ -max	Trace
LNTWI	1	27.87**	73.93**	LNTWI	1	30.14**	89.03**
LULC	2	19.54***	46.06***	LULC	2	21.60***	58.90
LIP	3	12.23	26.53	LIP	3	15.06	37.30
LCRED	4	11.33	14.30	LCRED	4	11.95	22.24
LCPI	5	2.97	2.97	LCPI	5	10.29	10.29

Model 2a	No. of vectors	Λ -max	Trace	Model 2b (w/ trend)	No. of vectors	λ -max	Trace
LNER	1	28.26**	75.16**	LNER	1	31.13**	89.98**
LULC	2	20.02***	46.90***	LULC	2	21.53***	58.85
LIP	3	12.75	26.87	LIP	3	14.98	37.32
LCRED	4	10.90	14.12	LCRED	4	12.51	22.34
LCPI	5	3.22	3.22	LCPI	5	9.83	9.83

Model 3a	No. of vectors	Λ -max	Trace	Model 3b (w/ trend)	No. of vectors	λ -max	Trace
LNTWI	1	23.35**	69.36**	LNTWI	1	29.30**	83.32***
LULC	2	21.16***	46.01***	LULC	2	21.18***	54.03
LIP	3	11.93	24.85	LIP	3	16.85	32.84
LM2	4	9.86	12.92	LM2	4	11.43	16.00
LCPI	5	3.06	3.06	LCPI	5	4.57	4.57

Model 4a	No. of vectors	Λ -max	Trace	Model 4b (w/ trend)	No. of vectors	λ -max	Trace
LNER	1	23.62**	69.63***	LNER	1	30.92**	82.84***
LULC	2	19.70***	45.01***	LULC	2	19.73	51.92
LIP	3	11.36	25.31	LIP	3	16.18	32.19
LM2	4	10.65	13.96	LM2	4	11.28	16.01
LCPI	5	3.31	3.31	LCPI	5	4.72	4.72

Model 5a	No. of vectors	Λ -max	Trace	Model 5b (w/ trend)	No. of vectors	λ -max	Trace
LNTWI	1	26.33**	69.36***	LNTWI	1	31.32**	87.54**
LULC	2	18.50***	43.03	LULC	2	19.32	56.22
LIP	3	12.17	24.53	LIP	3	17.74	36.90
LM2X	4	9.34	12.36	LM2X	4	9.93	19.15
LCPI	5	3.02	3.02	LCPI	5	9.23	9.23

Model 6a	No. of vectors	Λ -max	Trace	Model 6b (w/ trend)	No. of vectors	λ -max	Trace
LNER	1	26.43**	67.94***	LNER	1	32.25**	86.44***
LULC	2	17.32***	41.51	LULC	2	18.63	54.19
LIP	3	11.56	24.19	LIP	3	16.52	35.56
LM2X	4	9.40	12.63	LM2X	4	10.43	19.04
LCPI	5	3.23	3.23	LCPI	5	8.62	8.62

(*), (**), (***) indicate rejection of the null hypothesis at significance levels of 1, 5, and 10 percent, respectively.

Table AII.2: Tests for Cointegration, Unrestricted Model, Break in February 1997

Model 1c	No. of vectors	Λ -max	Trace	Model 1d (w/ trend)	No. of vectors	λ -max	Trace
LNTWI	1	30.30*	80.05*	LNTWI	1	52.32*	108.20*
LULC	2	25.83**	49.74**	LULC	2	25.97***	55.88
LIP	3	13.58***	23.91	LIP	3	15.25	29.91
LCRED	4	9.63	10.33	LCRED	4	11.76	14.66
LCPI	5	0.70	0.70	LCPI	5	2.90	2.90

Model 2c	No. of vectors	Λ -max	Trace	Model 2d (w/ trend)	No. of vectors	λ -max	Trace
LNER	1	34.67*	84.07*	LNER	1	52.72*	108.62*
LULC	2	25.43**	49.40**	LULC	2	25.47***	55.90
LIP	3	14.36***	23.97	LIP	3	15.86	30.42
LCRED	4	9.10	9.61	LCRED	4	12.15	14.57
LCPI	5	0.51	0.51	LCPI	5	2.42	2.42

Model 3c	No. of vectors	Λ -max	Trace	Model 3d (w/ trend)	No. of vectors	λ -max	Trace
LNTWI	1	33.33*	78.86*	LNTWI	1	59.37*	107.72*
LULC	2	21.37***	45.53***	LULC	2	21.40***	48.34
LIP	3	15.00***	26.70	LIP	3	15.36	26.94
LM2	4	7.43	9.16	LM2	4	7.90	11.58
LCPI	5	1.73	1.73	LCPI	5	3.67	3.67

Model 4c	No. of vectors	Λ -max	Trace	Model 4d (w/ trend)	No. of vectors	λ -max	Trace
LNER	1	37.66*	81.42*	LNER	1	58.08*	105.84*
LULC	2	21.10***	43.76	LULC	2	21.11***	47.75
LIP	3	14.55***	22.66	LIP	3	15.33	26.64
LM2	4	6.93	8.11	LM2	4	7.93	11.31
LCPI	5	1.18	1.18	LCPI	5	3.37	3.37

Model 5c	No. of vectors	Λ -max	Trace	Model 5d (w/ trend)	No. of vectors	λ -max	Trace
LNTWI	1	29.49**	72.67**	LNTWI	1	48.19*	102.37*
LULC	2	19.05***	43.18	LULC	2	21.01***	54.18
LIP	3	15.46***	24.14	LIP	3	18.81	33.17
LM2X	4	8.28	8.67	LM2X	4	10.24	14.36
LCPI	5	0.39	0.39	LCPI	5	4.12	4.12

Model 6c	No. of vectors	Λ -max	Trace	Model 6d (w/ trend)	No. of vectors	λ -max	Trace
LNER	1	31.90*	75.00**	LNER	1	48.46*	101.77*
LULC	2	18.67***	43.10	LULC	2	20.41***	53.30
LIP	3	16.39***	24.43	LIP	3	17.87***	32.90
LM2X	4	7.81	8.04	LM2X	4	11.44	15.03
LCPI	5	0.23	0.23	LCPI	5	3.59	3.59

(*), (**), (***) indicate rejection of the null hypothesis at significance levels of 1, 5, and 10 percent, respectively.

Table AII.3: Estimates and Tests of the Long-Run Relationships, Unrestricted Model

Model 1a	β	LR test $H^0: \beta_j=0$	α	LR test $H^0: \alpha_j=0$	Model 1b	β	LR test $H^0: \beta_j=0$	α	LR test $H^0: \alpha_j=0$
LNTWI	0.039	0.10	-0.142	0.63	LNTWI	-0.064	0.33	-0.210	1.02
LULC	-1.123	8.18*	0.197	3.12***	LULC	-1.061	8.53*	0.125	0.71
LIP	0.077	0.14	-0.129	4.38**	LIP	-0.347	1.24	-0.086	0.95
LCRED	0.025	0.07	-0.193	6.37**	LCRED	0.329	2.28	-0.283	8.16*
LCPI	1.000	6.43**	-0.017	0.10	LCPI	1.000	7.96*	-0.087	1.34
					TREND	-0.015	2.27		

Model 2a	β	LR test $H^0: \beta_j=0$	α	LR test $H^0: \alpha_j=0$	Model 2b	β	LR test $H^0: \beta_j=0$	α	LR test $H^0: \alpha_j=0$
LNER	-0.030	0.04	-0.081	0.22	LNER	-0.115	0.95	-0.145	0.50
LULC	-1.060	8.17*	0.189	3.00***	LULC	-1.010	9.58*	0.128	0.84
LIP	0.076	0.14	-0.145	5.58**	LIP	-0.359	1.57	-0.100	1.26
LCRED	0.032	0.10	-0.201	6.77*	LCRED	0.326	2.85***	-0.286	8.68*
LCPI	1.000	6.13**	-0.032	0.28	LCPI	1.000	8.69*	-0.110	1.97
					TREND	-0.014	2.87***		

Model 3a	β	LR test $H^0: \beta_j=0$	α	LR test $H^0: \alpha_j=0$	Model 3b	β	LR test $H^0: \beta_j=0$	α	LR test $H^0: \alpha_j=0$
LNTWI	0.025	0.03	-0.262	0.98	LNTWI	-0.086	0.64	-0.309	2.17
LULC	-0.841	1.79	0.075	0.09	LULC	-0.937	7.20*	0.050	0.11
LIP	0.467	2.17	-0.179	1.79	LIP	-0.246	0.71	-0.128	2.41
LM2	-0.226	2.07	0.034	0.33	LM2	0.313	2.16	-0.042	0.47
LCPI	1.000	2.03	-0.131	1.81	LCPI	1.000	7.76*	-0.190	6.76**
					TREND	-0.018	5.95**		

Model 4a	β	LR test $H^0: \beta_j=0$	α	LR test $H^0: \alpha_j=0$	Model 4b	β	LR test $H^0: \beta_j=0$	α	LR test $H^0: \alpha_j=0$
LNER	-0.059	0.17	-0.183	0.67	LNER	-0.136	1.55	-0.298	2.27
LULC	-0.797	3.50***	0.116	0.34	LULC	-0.900	9.91*	0.056	0.16
LIP	0.387	3.79***	-0.197	3.43***	LIP	-0.282	1.20	-0.130	2.57
LM2	-0.198	3.77***	0.040	0.46	LM2	0.310	2.83***	-0.038	0.42
LCPI	1.000	3.88**	-0.144	2.57	LCPI	1.000	10.76*	-0.207	8.55*
					TREND	-0.017	7.30*		

Model 5a	β	LR test $H^0: \beta_j=0$	α	LR test $H^0: \alpha_j=0$	Model 5b	β	LR test $H^0: \beta_j=0$	α	LR test $H^0: \alpha_j=0$
LNTWI	0.033	0.07	-0.152	0.90	LNTWI	-0.098	0.53	-0.256	3.34***
LULC	-0.602	2.10	-0.023	0.04	LULC	-0.891	5.44**	-0.073	0.57
LIP	0.655	7.52*	-0.111	2.47	LIP	-0.335	0.51	-0.029	0.19
LM2X	-0.433	7.50*	0.010	0.05	LM2X	0.511	1.43	-0.045	1.06
LCPI	1.000	4.67**	-0.126	7.18*	LCPI	1.000	6.75**	-0.147	11.38*
					TREND	-0.031	4.99**		

Table AII.3 (continued): Estimates and Tests of the Long-Run Relationships,
Unrestricted Model

Model 6a	β	LR test $H^0: \beta_i=0$	α	LR test $H^0: \alpha_j=0$	Model 6b	β	LR test $H^0: \beta_i=0$	α	LR test $H^0: \alpha_j=0$
LNER	-0.039	0.09	-0.152	0.86	LNER	-0.138	1.14	-0.278	3.58***
LULC	-0.572	2.73***	-0.013	0.01	LULC	-0.854	7.17*	-0.061	0.38
LIP	0.565	8.26*	-0.122	2.64	LIP	-0.343	0.75	-0.032	0.21
LM2X	-0.406	9.07*	0.014	0.08	LM2X	0.447	1.59	-0.045	0.97
LCPI	1.000	6.21**	-0.142	7.66*	LCPI	1.000	9.36*	-0.168	12.55*
					TREND	-0.028	5.82**		

Table AII.4: Estimates and Tests of the Long-Run Relationships, Unrestricted Model, Break in February 1997

Model 1c	β	LR test $H^0: \beta_i=0$	α	LR test $H^0: \alpha_j=0$	Model 1d	β	LR test $H^0: \beta_i=0$	α	LR test $H^0: \alpha_j=0$
LNTWI	-0.185	3.11***	0.361	1.28	LNTWI	-0.207	19.85*	0.285	0.97
LULC	-0.839	3.88**	0.148	0.31	LULC	-0.904	21.67*	-0.057	0.11
LIP	-0.140	1.35	-0.086	0.34	LIP	-0.613	21.67*	0.154	1.54
LCRED	0.014	0.09	-0.082	0.24	LCRED	0.379	20.33*	-0.199	2.30
LCPI	1.000	4.37**	-0.305	3.61***	LCPI	1.000	24.30*	-0.428	22.45*
					TREND	-0.016	22.02*		

Model 2c	β	LR test $H^0: \beta_i=0$	α	LR test $H^0: \alpha_j=0$	Model 2d	β	LR test $H^0: \beta_i=0$	α	LR test $H^0: \alpha_j=0$
LNER	-0.232	7.47*	0.398	2.06	LNER	-0.214	20.11*	0.284	1.01
LULC	-0.802	7.55*	0.118	0.34	LULC	-0.888	23.03*	0.004	0.00
LIP	-0.188	2.83***	-0.073	0.33	LIP	-0.566	20.08*	0.115	0.84
LCRED	0.024	0.28	-0.068	0.24	LCRED	0.328	17.16*	-0.184	1.96
LCPI	1.000	8.93*	-0.325	7.66*	LCPI	1.000	25.88*	-0.431	22.25*
					TREND	-0.013	18.05*		

Model 3c	β	LR test $H^0: \beta_i=0$	α	LR test $H^0: \alpha_j=0$	Model 3d	β	LR test $H^0: \beta_i=0$	α	LR test $H^0: \alpha_j=0$
LNTWI	-0.206	6.57**	0.296	1.37	LNTWI	-0.222	21.14*	0.130	0.28
LULC	-0.873	10.00*	0.093	0.31	LULC	-0.927	32.30*	0.046	0.10
LIP	-0.291	3.22***	-0.004	0.00	LIP	-0.628	24.70*	0.052	0.23
LM2	0.079	1.24	0.015	0.04	LM2	0.413	24.77*	-0.057	0.62
LCPI	1.000	10.44*	-0.303	11.69*	LCPI	1.000	32.46*	-0.414	28.41*
					TREND	-0.014	26.04*		

Model 4c	β	LR test $H^0: \beta_i=0$	α	LR test $H^0: \alpha_j=0$	Model 4d	β	LR test $H^0: \beta_i=0$	α	LR test $H^0: \alpha_j=0$
LNER	-0.242	11.01*	0.297	1.54	LNER	-0.222	20.14*	0.075	0.09
LULC	-0.841	13.83*	0.074	0.23	LULC	-0.907	32.72*	0.065	0.20
LIP	-0.311	5.14*	0.002	0.00	LIP	-0.564	22.42*	0.039	0.12
LM2	0.083	1.97	0.022	0.09	LM2	0.346	20.97*	-0.042	0.32
LCPI	1.000	14.57*	-0.335	15.98*	LCPI	1.000	33.08*	-0.433	29.22*
					TREND	-0.012	20.42*		

Model 5c	β	LR test $H^0: \beta_i=0$	α	LR test $H^0: \alpha_j=0$	Model 5d	β	LR test $H^0: \beta_i=0$	α	LR test $H^0: \alpha_j=0$
LNTWI	-0.117	1.50	0.086	0.12	LNTWI	-0.251	12.92*	-0.082	0.14
LULC	-0.712	5.51**	-0.017	0.01	LULC	-0.991	21.33*	-0.124	0.89
LIP	0.119	0.45	-0.072	0.39	LIP	-0.789	12.58*	0.134	1.77
LM2X	-0.166	2.99***	0.101	2.74	LM2X	0.658	12.71*	0.004	0.00
LCPI	1.000	8.41*	-0.275	10.01*	LCPI	1.000	21.40*	-0.352	25.69*
					TREND	-0.024	18.70*		

Table AII.4 (continued): Estimates and Tests of the Long-Run Relationships, Unrestricted Model, Break in February 1997

Model 6c	β	LR test $H^0: \beta_i=0$	α	LR test $H^0: \alpha_j=0$	Model 6d	β	LR test $H^0: \beta_i=0$	α	LR test $H^0: \alpha_j=0$
LNER	-0.179	3.97**	0.124	0.23	LNER	-0.244	13.12*	-0.104	0.21
LULC	-0.715	8.12*	-0.014	0.01	LULC	-0.944	22.92*	-0.087	0.41
LIP	0.001	0.00	-0.061	0.25	LIP	-0.669	11.74*	0.112	1.12
LM2X	-0.108	1.57	0.105	2.72***	LM2X	-0.520	10.86*	0.010	0.03
LCPI	1.000	11.88*	-0.321	12.69*	LCPI	1.000	24.17*	-0.375	26.91*
					TREND	-0.019	16.57*		

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II. PUBLIC FINANCE 1990–2000¹

A. Introduction and Overview of Fiscal Policy

- 1. Despite important progress toward more efficient and sustainable public finances over the last decade, Romania's fiscal position remains precarious.** Following the collapse of the Ceaucescu regime in 1989, public finances were in a highly imbalanced state, as was the entire economy. With haphazard and often inconsistent reform efforts in the following six years—coupled with large increases in fiscal cum quasi-fiscal deficits—major macroeconomic imbalances had emerged in late 1996, and urgent reform became inevitable. A new reform government faced the immediate task of averting a crisis. While fiscal consolidation proved very difficult, by the end of the 1990s the health of government finances was much improved. This was accomplished by arresting the buildup of debt, curtailing quasi-fiscal subsidies, and improving the tax policy environment, and, perhaps most importantly by cutting the overall size and deficit of government operations. Nevertheless, the fiscal position has remained precarious as indicated by persistent problems in budget preparation and implementation. This calls for further reform to prioritize and streamline expenditures and restore the viability of the pension system.
- 2. The excessively expansionary fiscal cum quasi-fiscal stance pursued up until 1996 necessitated a sharp correction in the subsequent years.** Between 1992 and 1996, the consolidated government deficit had reached an average of 3.1 percent of GDP, compared to recorded surpluses throughout the 1980s. Moreover, in an effort to support economic sectors facing hardships, significant quasi-fiscal deficits were also incurred (see Box II.1). While the ensuing profligate fiscal cum quasi-fiscal stance helped to secure the early recovery of output—compared to many other transition economies—it also set the stage for severe inflationary and balance of payments pressures, which came up to the fore at the end of 1996. The subsequent task of fiscal consolidation was only made more difficult by the eventual fiscalization of earlier incurred quasi-fiscal debt—mostly in the form of recapitalizing insolvent banks and calling of loan guarantees. This resulted in new expenditure pressures, particularly on debt servicing, which were further exacerbated by the liberalization of interest rates.
- 3. A substantial fiscal adjustment has been undertaken since 1997 through cuts in primary expenditures and increases in revenue.** The initial focus was on expenditure cuts concentrated on wages, pensions and capital. These, however, had to be partially rolled back under political pressure, and substantial tax increases were implemented in 1998 and early 1999. At the end of 1999, revenue collections had rebounded to the same share in GDP as in 1993, while primary expenditure in relation to GDP was significantly lower than in 1990–96. As a result, the primary balance improved by almost 5 percentage points of GDP between 1996 and 1999 (see Statistical Appendix, Table 24). However, an almost equivalent increase in interest expenditures limited the improvement in the overall deficit to only 1 percentage point during the same period.

¹ This chapter was prepared by Gerwin Bell.

Box II.1: Quasi-Fiscal Operations and Deficits

Quasi-fiscal operations quickly increased in the early 1990s and by 1996 had reached very large levels. The rapid expansion of such activities—beyond the level witnessed in other transition economies in Central and Eastern Europe—was a reaction to efforts to bring the fiscal deficit under control, most notably the 1993 reduction in transfer and subsidy spending by 6 percent of GDP. The quasi-fiscal operations took the form of (a) subsidies through the extension of directed low-interest credit by the NBR to agriculture and energy-intensive sectors; (b) sharp increases in lending by state-owned commercial banks to the same sectors; (c) NBR sales of foreign exchange at an appreciated exchange rate to the energy sector; (d) a pickup in the extension of government loan guarantees; and (e) a general increase in payments arrears by state owned companies. The following summary table provides a quantification of some of these factors (annual flows in percent of GDP):

	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>
Net directed credits to agriculture	1.8	2.2	0.3	1.1
NBR interest subsidies to agriculture	0.5	0.3	0.2	1.6
Exchange rate subsidy to industry	1.0	1.0	1.0	1.0
 Total banking system support to agriculture and industry	 3.3	 3.5	 1.5	 3.7

While these activities ceased following the exchange and interest rate liberalization of 1997, much of their cost was subsequently brought on budget, either through recapitalizing state-owned banks in 1997 and 1999 (in a combined amount of some 8 percent of GDP), or through lowered NBR profit transfers to the budget.

The extent to which these quasi-fiscal operations gave rise to deficits, however, is less clear. While much of the bad bank loans eventually found their way into the budget in 1997 and 1999—thus supporting the notion that these were not backed by any offsetting quasi-fiscal revenue at the time—an assessment is somewhat more difficult as concerns the support extended by the central bank (in terms of directed lending, interest subsidies, and exchange rate subsidy). Clearly, the NBR was able to rely on its own seignorage income (only part of its profits were supposed to be passed on to the budget), and part of the exchange rate subsidy to energy intensive importers was financed by an implicit tax on exporters who had to sell their proceeds at the too appreciated rate. However, several factors point to the fact that indeed significant quasi-fiscal deficits were recorded: seignorage revenue averaged around 2.5 percent of GDP over the period, below the combined total of NBR support to industry and agriculture; exporters found ways to sell their proceeds on the parallel market, thus evading the implicit export tax; and the NBR witnessed a considerable deterioration in its net foreign asset position over the period, which it financed by foreign borrowing at market interest rates.

4. The focus of reform now has to shift toward a prioritization of government functions in line with available resources. On the one hand, substantial quasi-fiscal operations have been eliminated and the share of government expenditure in GDP is now in line with economies like the U.S., albeit considerably lower than in the EU countries or more advanced transition economies. This reflects difficulties encountered in tax administration and collections as well as a policy effort by government to limit its use of productive resources. On the other hand, the Romanian system of public finance attempts to emulate all the features of a European-type welfare state, which—in order to be sustainably financed—would require a significantly higher revenue collection than is currently the case. In addition, the public pension system has become increasingly unsustainable and the needed augmentation of outlays in key social sectors as well as projected new expenditure obligations—notably associated with Romania’s efforts to accede to the European Union,

and to join NATO—will need to be financed. In order to achieve fiscal sustainability—an important ingredient to the so far elusive macroeconomic stability—a choice between a concerted effort at increasing revenue collections or cutting the reaches of government spending and welfare entitlements thus needs to be made.

5. **The task is far from easy and considerable downside risk is present.** Attempts to increase revenue have in the past been largely met by increased tax evasion and/or arrears accumulation while the only effective way to control (real) expenditures has been higher-than-targeted inflation. In the period ahead it is, therefore, important to maintain the efficiency gains made in tax policy; to greatly improve tax administration; to streamline spending; and to reform the pension system. Failure to progress along these fronts could again rapidly undermine the health of public finances.

6. In the remainder of the chapter, the most important developments in the areas of revenue and expenditure policy during the last ten years will be reviewed. The analysis will be geared toward identifying the remaining immediate and future challenges. Accordingly, considerable attention is devoted to the incentive effects of tax policy (especially on labor supply and demand) and on needed reforms in the areas of wage and employment policy, as well as of the unsustainable pension system. The chapter also seeks to identify trends in public debt and interest payments, and concludes with a brief review of the main medium-term challenges.

B. Revenue Policies

7. **The downward trend in revenue collections has now been reversed, and important efficiency gains have been recorded in tax policy.** The share of revenue collections in GDP in 1999 has rebounded to a level last recorded in 1993—an experience unique among transition economies, which, in general, have witnessed a continuous erosion and eventual bottoming out of revenues. Tax policy has become more efficient: the importance of income- and wage taxation has been lowered, thereby reducing distortions and incentives for rent-seeking activities as well as non-wage labor costs (however, continuous increases in social security contributions—necessitated by increasing imbalances in the pension system—largely offset this beneficial effect). At the same time, more reliance is being placed on broader-based indirect taxes which generally are easier to administer and subject to fewer distortions (see Table II.1).

Table II.1: Composition of Revenue, 1990–2000 1/											
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
	(In percent of GDP)										
Total revenue	39.8	41.9	37.4	33.4	31.2	31.4	29.2	28.6	30.1	33.3	14.2
Income and wage-based taxes	21.8	23.0	24.4	21.0	19.6	18.4	17.0	16.8	16.2	17.7	7.6
Company income tax	7.1	5.1	5.3	3.8	3.8	3.9	3.3	4.3	3.0	3.3	1.1
Personal income tax	6.8	7.6	7.6	6.6	6.5	6.4	6.1	5.5	4.1	3.4	1.5
Social security contributions	7.9	10.3	11.5	10.7	9.2	8.2	7.6	7.0	9.1	11.1	4.9
Indirect taxes	12.0	9.4	8.4	8.7	7.2	8.1	7.9	7.6	10.0	11.0	4.3
Value added tax 2/	11.9	8.3	6.9	3.6	4.6	5.2	4.9	4.6	6.1	6.2	2.7
Excise taxes	0.0	0.0	0.0	3.7	1.6	1.5	1.4	1.7	2.3	3.3	1.1
Taxes on international trade	0.1	1.1	1.4	1.4	1.1	1.4	1.5	1.3	1.6	1.5	0.5
Other taxes and nontax revenue	6.0	9.6	4.6	3.7	4.4	4.8	4.3	4.2	4.0	4.6	2.3
Memorandum items:											
Shares in total revenue (in percent)											
Income and wage-based taxes	54.7	54.8	65.2	62.9	62.6	58.7	58.2	58.7	53.7	53.2	53.4
Of which: Excluding social security contributions	34.9	30.1	34.5	31.0	33.0	32.7	32.3	34.3	23.6	20.1	18.5
Indirect taxes	30.2	22.4	22.4	26.0	23.2	25.9	27.0	26.6	33.0	32.9	30.5
Sources: Data provided by the Romanian authorities and staff estimates											
1/ Data for 2000 refer to developments through June 30, 2000, and are affected by seasonality.											
2/ Prior to 1993, turnover tax.											

8. The following paragraphs take a more detailed look at tax policy and developments in tax administration and also compare developments to the experience of other transition economies. Appendix II-1 summarizes the Romanian tax system as of September 2000, while Appendix II-2 provides a description of changes in income and value-added taxation since 1996.

Company income taxation

9. **Short-run attempts to balance the twin objectives of raising revenue and providing incentives for investment undermined the integrity of company income taxation throughout the 1990s.** The profit tax was introduced in 1990 to replace the communist-era confiscatory profits transfer tax.² However, already early on, further progress in making the tax more efficient was hampered by *ad hoc* and frequently reversed measures on tax holidays and other “tax incentives” (see Box II.2), which were typically based on short-term assessments of the relative importance of revenue collections *vis-à-vis* investment promotion. Far from benefiting investment and employment, these frequent changes and the

² Early reforms centered on a reduction in the number and the statutory level of tax rates. The number of rates, which had amounted to 68 (ranging from 0 to 77 percent in 1991 in an effort to introduce progressivity into company income taxation), was subsequently reduced to two in 1992 (30 and 45 percent), and further to a uniform 38 percent in 1996.

attendant instability of the regime—described as “tax mayhem” by private-sector legal experts—eroded the credibility of tax policy, and made holding out a more valuable option for potential investors.

Box II.2. Tax Holidays and Investment Incentives

In an effort to mitigate the effects of high statutory profit tax rates, especially in the absence of proper inflation accounting on new investment, the authorities found it desirable to introduce tax holidays and other selective incentives into the tax code at numerous stages during the 1990s. The following provides a brief timeline:

- In 1991, generous company tax holidays and investment tax allowances were introduced. Over the next two years, these measures—along with the ongoing economic contraction—contributed to a steady erosion in company income tax collections.
- In an effort to strengthen revenue collections from companies, the 1991 tax holiday provisions were partially rescinded in 1994. However, law 71 of the same year awarded new long-term tax holidays selectively to foreign investors.
- New tax holidays and tax cuts for companies (including on customs duties and VAT) were introduced in 1997 through Emergency Ordinance (EO) 92, and subsequently generalized to a larger class of beneficiaries through law 241 of 1998.
- In order to avoid the sharp loss of revenue implied by the coming on stream of the latter tax cuts, the 1999 budget law suspended for one year all tax holidays and incentives, including those already awarded.
- In an effort to secure a major privatization deal, government passed EO 67 of 1999, granting even more generous selective tax holidays and cuts.
- In mid-1999, a moratorium was put on the implementation of the EO 67 in order to stem the potential loss of revenue and efficiency of the tax code, limiting its application to one company.
- In July 1999 Law 139 was passed which extended the benefits of EO 67 to small- and medium-sized enterprises.
- Beginning in 2000, with the previous suspensions and moratoria set to expire, companies were set to benefit from complete or partial tax holidays which could have been granted through a number of laws or through the discretion of government agencies. Tax holidays would have also been available for actual or planned investments in excess of differing amounts (starting at US\$500,000), for companies of differing sizes (specified in terms of employment or turnover), for reinvested earnings (in some cases without any expiration date), and for investment in areas with high unemployment or other disadvantages.
- Instead, in early 2000, a comprehensive reform of company income taxation was undertaken, reducing the statutory rate, introducing an investment tax allowance, and abrogating and repealing EO67 and Law 139 of 1999, as well as all other provisions suspended in the 1999 budget law.

10. **By the beginning of the year 2000, the corporate tax regime was set to undergo further drastic changes.** The need to increase revenue collections had led to the imposition of various one-year moratoria on, and suspensions of, tax holidays in 1999. On the one hand, with the lapse of these moratoria in 2000, large-scale revenue losses, estimated at 2 percent of GDP, and stark distortions of business taxation would have resulted. On the other hand, the statutory taxation of companies in Romania was considerably more onerous than elsewhere in the region. The statutory tax rate of 38 percent was the second highest in Eastern Europe and—given the absence of proper inflation adjustment—implied the highest *effective tax rate on investments* (ETR) in the entire region, more than twice as high as in the country with the second highest taxation (see Table II.2).³ The available tax holidays would have put company taxation to the lowest comparable level, at less than half the next lowest ETR (see Bergsman, Chen, and Mintz (1999)). Since not all companies would have benefited from these holidays, stark tax distortions would have arisen, which would have been compounded by the effect of inflation on taxable income. With high levels of inflation, no proper adjustment of tax liabilities, but unlimited deductibility of interest expenditures for taxable profits, the tax system was extremely tilted in favor of companies able to raise debt finance.⁴

³ ETR is an analytical construct which aims to relate an investment project's actual tax liability to its before-tax income in economic terms (i.e., including the effects of depreciation, operating expenses, inflation, etc.). The ETR can be either lower or higher than the statutory rate. It would be lower, if, for example, tax holidays reduce tax liabilities. It could be higher, if company profits were affected by inflation, but the value of the investment and depreciation allowances were not benefiting from revaluation.

⁴ In environments of high inflation and liberalized interest rates, actual interest payments include a large component of monetary correction, *de facto* amortization payments. Full deductibility of interest expenditure from taxable profits may, thus, result in extremely low—potentially negative—taxation of investments and thereby provide an incentive for excessive accumulation of corporate debt (see Mintz, 1990).

Table II.2: Comparison of Company Income Taxation		
	Statutory Rate	Effective Rate 1/
Romania		
End-1999	38	45.4
2000 in absence of reform 2/	38	4.3
2000	25	21.0
Neighboring countries 3/		
Czech Republic	35	10.9
Hungary	18	13.1
Poland	34	22.1
Slovakia	40	16.9
Slovenia	25	12.4
Sources: Bergsman, Chen and Mintz (1999); and staff estimates.		
1/ Estimates for the manufacturing sector.		
2/ Indicates the situation where suspensions and moratoria expired.		
3/ Assumes that investments benefit from all available incentives, including tax holidays.		

11. **The 2000 reform has greatly improved the investment climate, and brought Romania's company taxation more in line with regional standards.** Most importantly, all previous tax-holiday and investment-incentive legislation was abrogated and the statutory tax rate lowered from 38 to 25 percent, while an investment tax allowance of 10 percent was introduced, which established an indirect inflation adjustment into the tax code.⁵ After the reform, the effective taxation of investments is close to the levels in Poland and Slovakia.⁶ Moreover, the expected deceleration in inflation should also mitigate the detrimental incentives posed by unlimited deductibility of interest expenditures.

12. **However, some challenges remain.** The lower taxation of company income arising from exports—subject to an estimated ETR of only 1 percent—has introduced new distortions and administrative difficulties, and, in due course, will lead to calls for similar beneficial taxation from other sectors.⁷ Subject to overall fiscal resource availability, a preferable approach would have been a further lowering of the standard rate, eschewing the

⁵ A new distortion was, however, introduced with a preferential 5 percent rate for profits arising from export activities.

⁶ It is worthy to note that the lower ETRs in the Czech Republic and Slovakia reflect their respective tax holiday provisions. Without tax holidays, investments in these two countries would face a significantly higher ETR than in Romania.

⁷ The tax is assessed by applying the share of export proceeds in total company turnover to taxable company profits. This assessment poses obvious incentives for overreporting export earnings.

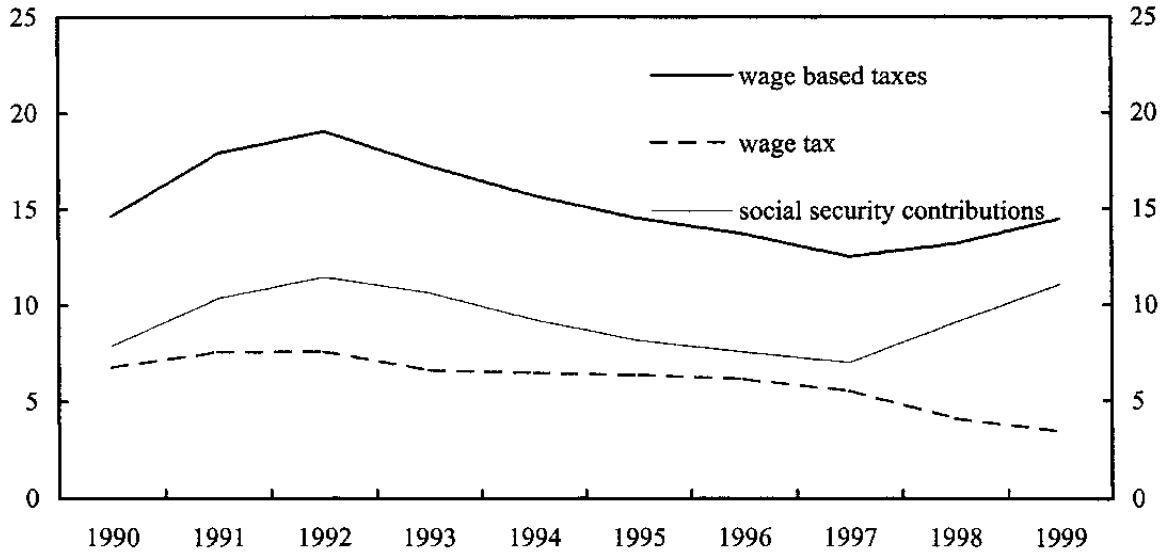
introduction of sector-specific rates. Another challenge will be to strengthen centralized authority in the area of tax policy so as to end the practice of special agencies (for example, the Romanian Development Agency or the Agency for Regional Development) initiating tax holidays. Such noncentralized power to grant sector-specific tax incentives has done much to undermine the credibility and stability of the tax system, and every effort should be made to avoid a relapse into past practices.

Wage-based taxes

13. Considerable progress has been recorded in modernizing personal income taxation and reducing adverse incentives for employment throughout the decade. However, the perilous state of the pension system, as well as attempts to introduce a broad wage-taxed financed social welfare system, have prevented a lowering of non-wage labor costs, imparted through wage-based taxes.

14. **Overall wage-based taxation has been driven by diverging developments in personal income taxation and social security contributions** (see Figure II.1). In the early

**Figure II.1: Trends in Wage-Based Taxes, 1990–99
(In percent of GDP)**



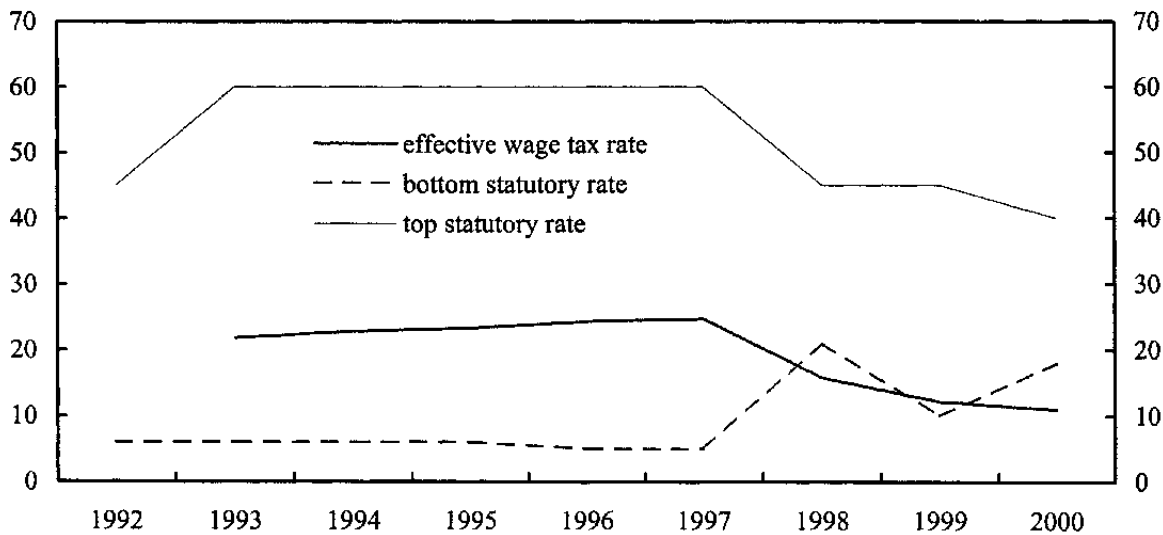
transition period, the share of both components in GDP increased sharply, reflecting mainly the regressive bias imparted by bracket creep in a high-inflation environment and the increasing share of labor in GDP. However, successive tax cuts, adjustments in brackets, as well as weaknesses in tax administration had by 1997 resulted in lower collections of wage-based taxes than in the pre-transition period. For wage taxes, this trend continued unabated, as new tax cuts resulted in a further reduction in personal income taxes. However, collections

of contributions picked up again in 1998 when the by then precarious state of pension fund finances resulted in the first drastic increase in social security contributions.

Personal income tax

15. **The burden of personal income taxation has been drastically reduced.** In 1992, Romania had a personal income tax schedule with 13 brackets and marginal rates from 6 to 45 percent. There was no general allowance level—i.e., income became taxable with the first leu earned—except for special cases (e.g., participants in the 1989 revolution).⁸ The top marginal rate was further increased to 60 percent in 1993, but the number and classes of exempted tax payers continued to grow. Recognizing the pernicious effects of such high marginal tax rates, as well as the strong pressure for exemption of additional groups, the authorities rolled back the increase of the top rate in 1997 and 98, reduced the number of brackets, and decreased the spread between the top and bottom rates. However, the addition of new exemptions, as well as the attendant administrative difficulties, led to sharply reduced effective tax rates—as measured by the difference between average gross and net wages—so that in 1998 the effective tax rate was 16 percent, well below the statutory minimum of 21 percent (see Figure II.2).

**Figure II.2: Trends in Statutory and Effective Wage Tax, 1992-2000H1
(In percent)**



16. **The income tax reform of 2000 aimed at broadening the base while further reducing marginal rates, and lowering the tax burden on low-wage earners.** In January

⁸ Tax credits were, however, available, according to the number of children in a household.

2000, the previous schedular system was replaced by a global income tax law, which covers all sources of personal income. However, difficulties in administration will ensure that the tax will continue to be predominantly based on withheld wage taxes.⁹ Against the background of the adverse incentive effects of high top marginal rates, the reform also included a further reduction in the top rate to 40 percent with a simultaneous increase of the bottom rate to 18 percent (thereby lowering the spread from 35 percentage points to 22 percentage points). So as to mitigate the impact on low-income earners, the general tax free allowance was more than doubled to about 40 percent of average wages.

Social security contributions

17. **Following significant increases in statutory social security contribution rates, there are signs that collections in relation to GDP have now reached an upper limit.**¹⁰ After initial increases in 1990 and 1991, statutory social security contribution rates were kept unchanged at 35 percent of gross wages through 1997.¹¹ The statutory rate was increased to 43 percent in 1998 and 60 percent in 1999, reflecting both the establishment of the National Health Insurance House modeled on the German system, as well as the dramatic deterioration in the finances of the pension fund (see below). Apart from the large implied increases in nonwage labor costs—*ceteris paribus* equivalent to a 25 percent increase in real wages over two years—and the attendant adverse effects on employment and inflation, these increases also resulted in sharply lower compliance (see Table II.3). Moreover, the level of contributions is now by far the highest compared to the region and western Europe.¹²

⁹ Incremental withholding taxes on other income are, however, being introduced, for example, on pension income exceeding two million lei as of July 2000.

¹⁰ Social security contributions currently are collected by the pension and unemployment funds, health insurance, the risk, accident, and handicapped special funds, as well as a special fund used to top up wage payments in the education sector.

¹¹ The contribution rates quoted in the text are based on the standard pension contribution rate (currently 35 percent). Special higher contribution rates of 40 or 45 percent apply in industries eligible for special early retirement benefits (e.g., mining and railways).

¹² The statutory rate of 60 percent in Romania compares to 50 and 47.5 percent in the Slovak and Czech Republics, to 41 percent in Hungary, 43 percent in Poland, an EU average of 36.5 percent, and 25 percent in the OECD (see Christou (2000)).

	1997	1998	1999	2000HI
Statutory social contribution rate (in percent)	35.0	43.0	60.0	60.0
Outstanding arrears to pension fund (in percent of GDP)	0.6	1.0	2.5	2.6
Number of civil contracts (in thousands)	...	...	3,100	...
Number of labor contracts (in thousands)	5,415	5,187	4,785	...
Estimated degree of compliance 2/	53.5	52.6	46.8	44.0

Sources: Data provided by the Romanian authorities.
 1/ Data for 2000 refer to the first six months.
 2/ Estimated on the basis of actual contributions collected by potential contributors.

18. Declining compliance was facilitated on the one hand by attempts at needed labor market liberalization, and, on the other hand, by increasing tolerance to nonpayment of obligations by large public enterprises.

- In an effort to stimulate part-time employment, so called “**civil contracts of employment**” were introduced in 1995. These were intended to be constrained to small-time and contractual employment, which was at the time thought to not require pension coverage. Accordingly, such contracts were only made liable to wage tax and health insurance contributions. Subsequently, employment under such contracts witnessed sharp increases—in contrast to the ongoing and unchecked decline in employment governed by standard labor contracts subject also to pension and unemployment contributions. Reflecting the urgent need for labor market liberalization, the growth was not confined to part time jobs, as regular employment relations became increasingly governed by such civil contracts.
- At the same time, **contribution arrears by large state owned companies**—many of them in sectors subject to higher-than-standard pension contributions—were allowed to balloon.¹³ The resulting increases in arrears are even understated given the low penalty rate over much of the last four years, that permitted an erosion of the real value of these arrears. While the pension fund was given legal means to enforce better payment performance—notably through seizing bank balances and shipments or deliveries, as well as the option to convert such debt into shares for sale to investors—concerns about the adverse employment effects of such actions have in the past prevented a more forceful enforcement of payments due.

19. There is an urgent need to reverse the unsustainable level and composition of social security contributions. In an effort to increase the number of contributors, in May

¹³ The biggest debtors to the pension fund are concentrated in steel production, refineries, and the railways, all subject to an overall 70 percent social contribution rate.

2000, the authorities took steps to increase the tax base by subjecting civil contracts to all social security contributions.¹⁴ However, it is doubtful, as early revenue collections indicate, that the resulting 41 percentage points rise in non-wage labor cost for such contracts will generate additional revenue as opposed to further tax evasion (for example, by shifting work into uncontracted arrangements, which would in addition result in a loss of wage tax revenue so far collected under civil contracts). At the same time, the buildup of arrears to the pension fund has continued unabated. While in the recent past, the reductions in the personal income tax have mitigated the adverse effects of higher social contributions on the cost of employment, such mitigation is unlikely to be available in the future given the now rather low level of personal income taxation. Instead, it is now imperative to enforce strict payment discipline, and to dramatically turn around the financial position of the pension system (see below), to be able to improve incentives for employment.

Indirect taxes

20. Over the last decade, substantial progress was made in introducing a modern system of indirect taxes. However, collection efficiency has considerably fallen short of potential, reflecting both genuine administrative difficulties, but also inconsistent attempts at steering the tax burden into politically desired directions. With a reform in early 2000 undoing much of such unproductive regulation, it is now important to concentrate on urgent administrative improvements.

Value-added tax

21. **VAT collections have only recently begun to reverse the downward trend since the inception of the tax.** The VAT was introduced in mid-1993 to replace the turnover tax. With a statutory rate of 18 percent, international experience would have suggested that revenue collections of 9 percent of GDP were well within reach. However, actual collections declined from 5.3 percent of GDP in 1993 to 4.6 percent in 1997, with the effectiveness of the tax—i.e. the share of actual to theoretical collections—on a downward trend (see Table II.4).

¹⁴ The number of contributors, at 5.3 million, is only 55 percent of the active population.

Table II.4: VAT indicators, 1993–2000 1/								
	1993	1994	1995	1996	1997	1998	1999	2000
Statutory rate (in percent)								
Standard rate	18.0	18.0	18.0	18.0	18.0	22.0	22.0	19.0
Reduced rate	18.0	9.0	9.0	9.0	9.0	11.0	11.0	n.a.
Number of exempted groups of goods	0	...	...	11	18	19	19	3
Effective rate (in percent)	8.2	6.9	7.5	6.7	5.8	7.6	8.0	7.0
Collections (in percent of GDP)	5.3	4.6	5.2	4.9	4.6	6.1	6.3	6.0
Sources: Data provided by the Romanian authorities; and staff estimates.								
1/ Data for 2000 pertain to the first 6 months.								

22. This poor performance reflects the fact that, from its inception, tax administration became heavily burdened by a large number of exemptions and multiple rates, and by difficulties of tax administrators in adjusting to the fundamental difference in the nature of the VAT from the previous turnover tax:

- **Multiple rates were quickly introduced.** While the VAT was introduced with a uniform rate of 18 percent, a reduced rate of 9 percent was added shortly thereafter in 1994. The lower rate was designed to cover basic and educational goods, but, in rapid additions, also began to apply to public transport and newspapers. Moreover, in sharp contrast to international practice which, in line with the “destination principle,” levies a zero rate only on exported goods,¹⁵ Romania also subjected domestic consumption goods like electricity and gas to a zero VAT rate.
- **Large scale exemptions were provided.** Initially reflecting an attempt to further cushion the adverse impact of a consumption tax on poorer households, entire classes of goods were exempted. However, further exemptions were provided for services provided by self-employed, many of which did not command a high proportion in poor households’ consumption baskets (such as lawyers’ services, cultural performances, and spa holidays).
- **The tax authorities took time to adjust to the administrative requirements of a VAT.** The self-enforcing element of the VAT was greatly weakened by the delay in adjusting tax administration to the difference between a final consumption tax and a turnover tax. In particular, a successful VAT depends on the prompt payment of credits to taxpayers for VAT paid on inputs, particularly for exporters. However, a conservative approach toward processing requests for reimbursements led to long delays, during which, in addition to the carrying costs for the tax payer, high inflation

¹⁵ The zero rate would also apply to international transportation and diplomatic purchases.

substantially reduced the real value of the eventual credit, and in practice reintroduced some of the distortions of the earlier cascading turnover tax. Moreover, the delayed processing of reimbursements and refunds undermined the self-enforcing character of a VAT, i.e., for producers to register and pay VAT, so as to be able to claim such credits; and incentives for evasion remained large.

- **The VAT was used as a tool for providing business incentives.** Recognizing the adverse impact of delayed reimbursements for company profitability, the authorities found themselves compelled early on to award selective VAT exemptions to specific companies (see Box II.2). However, the award of such exemptions for one company only triggered demands for similar treatment from additional companies, notably competitors and suppliers, thereby undermining the base of a successful VAT, which for its proper functioning, needs to rely on an unbroken chain of tax payments and invoices through all stages of production up to final consumption.

23. **A comprehensive VAT reform to redress these problems was launched in 2000.** An initial attempt to improve the revenue yield in 1999 relied on an increase in statutory rates, but had limited success, as further requests for exemptions or coverage at the lower rate proved impossible to ignore. In contrast, the reform launched in January 2000 included the following elements designed to move the VAT closer to an ideal type, embodying a single positive rate, zero-rating for exports, and as wide a tax base as possible:

- **The statutory rate was lowered and unified.** While the standard rate was reduced from 22 percent to 19 percent, it is still higher than the 18 percent rate in place through 1996. In addition, the reduced rate was abolished, thus effecting a VAT increase of 7 percentage points on goods previously taxed at the lower rate of 11 percent. Moreover, Romania is now one of the few countries in Europe with a uniform rate—albeit a comparatively low one.¹⁶ Finally, the zero rate is now limited to exports. Actual collections through mid-2000 suggest that this reform has been almost revenue neutral.
- **Exemptions were reduced** from 19 groups to three.
- **The processing of credits and refunds was speeded up.** In a first step, export-oriented large-scale companies were beneficiaries, but the new procedures are expected to quickly benefit all other tax payers.
- **Selective company-specific VAT exemptions were generally revoked.** Against the background of speedier processing of VAT reimbursements, the demands for company-specific VAT exemptions were expected to drop, and most such

¹⁶ Other transition countries typically have standard rates in excess of 20 percent, but also (sometimes multiple) lower rates. Among countries with a uniform rate, Romania's 19 percent is lower than the 25 percent in Denmark, but higher than the 17.5 percent in the United Kingdom (see Christou (2000)).

arrangements have now been cancelled. However, to the extent that they do remain (primarily in politically important enterprises), they still constitute an anomaly that severely impedes the proper functioning of a VAT and would best be phased out at the earliest possible opportunity.

24. **The stage is now set for a major improvement in VAT performance.** International experience would suggest that with the reform in place, a significant increase in VAT collections, up to at least a level of 9 percent of GDP over the next several years, should be possible. This would imply a 30 percent increase in real VAT collections, and should serve as a yardstick in designing tax administration improvements.

Other indirect taxes

25. **The administration of excise taxes has been subject to frequent and contradictory shifts, and continues to be plagued by poor collection performance as the tax authorities continue to play catch-up with tax avoiders.** Excises were introduced in 1993, as part of the tax reform program abolishing the turnover tax. They are levied on petroleum, alcohol and tobacco products, as well as passenger cars and selected luxury goods. From the beginning, their administration proved difficult, and the authorities undertook numerous reforms to tackle the underlying problems. Initially levied at specific rates, their yield was quickly undermined by rapid inflation. However, the change to *ad valorem* rates did not significantly improve matters as the tax authorities found it difficult to detect cases of declared undervaluation of the excisable product. To address the latter problem, excises were returned to a specific valuation, but in euro terms, thereby obviating the need for frequent inflation adjustments. However, tax evasion quickly shifted to redenominating excisable products into non-excisable ones, resulting in a 15 percent fall in real excise collections in the first 8 months of 2000. Recently modified legislation now seeks to put less ambiguous definitions of excisable products in place.

26. **Revenue from trade taxes increased quickly in the early stages of transition, but has recently been declining.** With the opening of trade and the tariffication of quantitative restrictions, customs receipts increased from close to zero to 1.5 percent of GDP in 1993. This level has on average been maintained through 1999, notwithstanding further trade liberalization and the proliferation of exemptions. However, in view of the build up of significant current account pressures, the authorities felt compelled to introduce a general import surcharge of 6 percent in 1998. The surcharge has since been reduced to 4 percent in 1999, and 2 percent in 2000, and is scheduled to be eliminated in 2001. Reflecting continued difficulties in customs administration, trade tax collections are currently projected to fall some 25 percent in real terms to 1.1 percent of GDP in 2000, and can be expected to fall lower still, given the need to lower tariff rates in preparation for EU accession.

C. Expenditure Policy Issues

27. After large increases in fiscal cum quasi fiscal expenditures in the first half of the decade, a corrective tightening has been achieved, setting the foundation for improved fiscal sustainability. By 1996, unsustainably large spending had resulted in a debt level which had become burdensome to finance. The stabilization effort begun in 1997 effected a drastic

reduction in primary spending, accommodating the higher interest costs and making an important contribution to an improved fiscal position in the future. However, the pension system has clearly become unsustainable. The following paragraphs will discuss some of the relevant issue in more detail.

Personnel expenditures

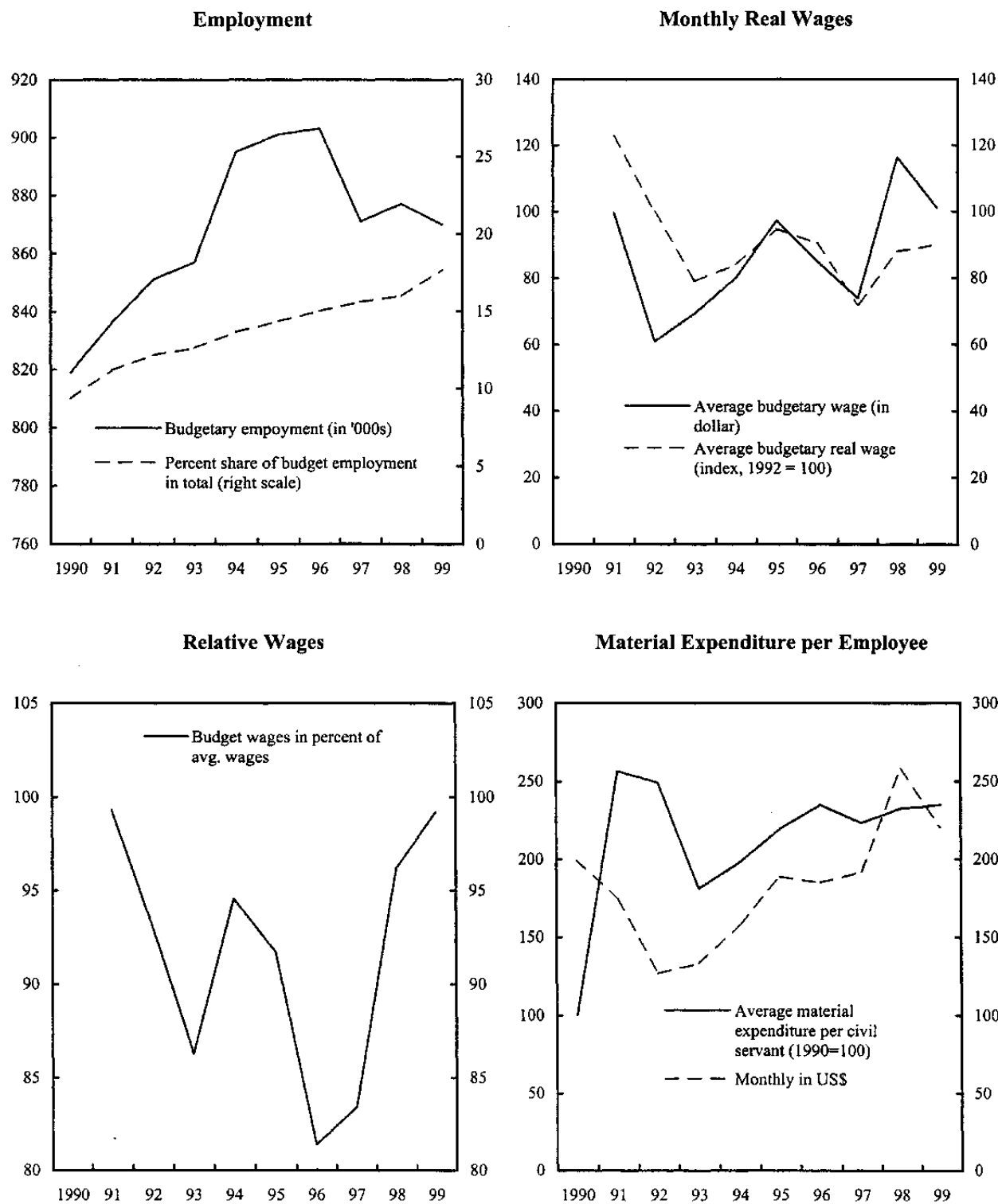
28. **Throughout the decade, attempts at expenditure consolidation were complicated by difficulties in trimming personnel outlays.** While the share of government wage expenditures in GDP up to 1996 was about in line with other transition countries, the share of wage expenditures in total government expenditures, at some 20 percent was relatively high.¹⁷ A drastic cut in wage expenditure effected in 1997—resulting from sizeable reductions in employment and wages—proved not to be sustainable, and wage expenditure has subsequently inched up again. The following points discuss the reasons behind these developments in some more detail (see also Figure II.3).

- **Despite the move from plan to market, government employment has increased over the last decade** (Figure II.3, Panel 1). In the first six years of the 1990s, the budget had increasingly assumed the role of employer of last resort, and government employment had grown some 10 percent to more than 903,000 by end-1996. Notwithstanding repeated attempts, it has proved politically difficult to reverse these increases, and employment has been reduced only by some 4 percent to 870,000 at end 1999.¹⁸ In fact, reflecting the ongoing restructuring in the rest of the economy, and the resulting decline of formal employment, the share of government employment in total employment has continued to increase, from 9.4 percent in 1990 to 17.7 percent in 1999.
- **Early attempts at reducing remuneration proved unsustainable** (Figure II.3, Panel 2). While real wages and dollar wages declined by one third between 1990 and 1993, difficulties in maintaining morale and attracting qualified applicants, and the electoral cycle all put pressures on salaries in the following years. Against this background, average monthly government wages have risen to a historic high of US\$110 by mid-2000, driven by initial wage increases in the education and defense and security sectors, which proved themselves politically hard to withhold from other government employees.

¹⁷ This observation pertains to reported personnel expenditure. To the extent that countries include some personnel spending (e.g., for sub-national government levels) in transfer spending, this statement would need to be qualified.

¹⁸ These numbers exclude employment in the defense and security sectors, which amounted to some additional 130,000.

Figure II.3. Romania: Indicators of Government Personnel Expenditure, 1990-99



Source: Data provided by the Romanian authorities.

- **Government wages have caught up again with wages in the rest of the economy** (Figure II.3, Panel 3). Arguably reflecting higher job security, wages in the government sector, which started out at close to the average wage level in the entire economy, initially fell behind wages in the rest of the economy, so that by 1996 the average civil service wage had fallen to some 80 percent of the economy-wide average. Since then, partly owing to lower wage growth in public enterprises, the differential has been largely eliminated, and with the hefty wage increases accorded recently, is projected to reach a historic low in 2000.
- **Efforts were also undertaken to secure critical operating outlays** (see Figure II.3, Panel 4). While initial efforts at controlling budget spending early in the 1990s were centered on cutting operating expenditures—also resulting in the accumulation of some arrears—the ensuing decline in the quality of public services necessitated increases in material allocations. Moreover, the establishment of a self-financing medical insurance scheme in 1998 helped to secure funding for medical services, which had suffered in prior years.

29. **Making up for lost time, and reducing the size of government will be a key challenge in improving fiscal sustainability.** The twin objectives of limiting the drain of government on the private economy, as well as improving the quality of government services will require a significant cut in overstaffing. On the assumption that a self-supporting growth process has taken hold in the economy, and that productivity is set to rise, there will be pressure on wages in the private sector, especially for critical skills. Moreover, further efficiency improvements through use of technology will likely result in higher material expenditure per employee. Government will only be able to compete for the needed skills as well as improve its operations if employment is cut. The government has announced plans in this direction which were, however, delayed in the run up to the elections.

Pensions

30. **Romania entered the 1990's with an already unsustainable pension system.** While nominally a pay-as-you-go (PAYG) defined-benefit (DB) system, the financial health of the pension system was compromised by the extension of pension benefits to non-contributing employees—notably farmers and employees in agricultural enterprises—while contributions were kept at a level too low to cover the implied replacement rate. In addition, the benefits were based on only a fraction of a worker's work history.¹⁹ On the other hand, with a relatively young population, demographic trends did not imply a worsening of the pension system's finances.

31. **Subsequent pension policy compounded the initial problems.** Chief among the adverse policies pursued was the large expansion of the number of pensioners through legislative fiat, by introducing generous early retirement regulation, which has massively

¹⁹ The benefit formula calculated a worker's pension at 75 percent of the average wage earned in the in the five best consecutive years in the previous 10-year period.

undermined the previously benign demographic trends (see Figure II.4).²⁰ Furthermore, the DB link between a worker's wage- and employment history and pension benefits was further weakened, most notably in 1996 when, in response to the political fallout of declining real pensions, the government passed a decision linking all pensions to the economy-wide average wage.

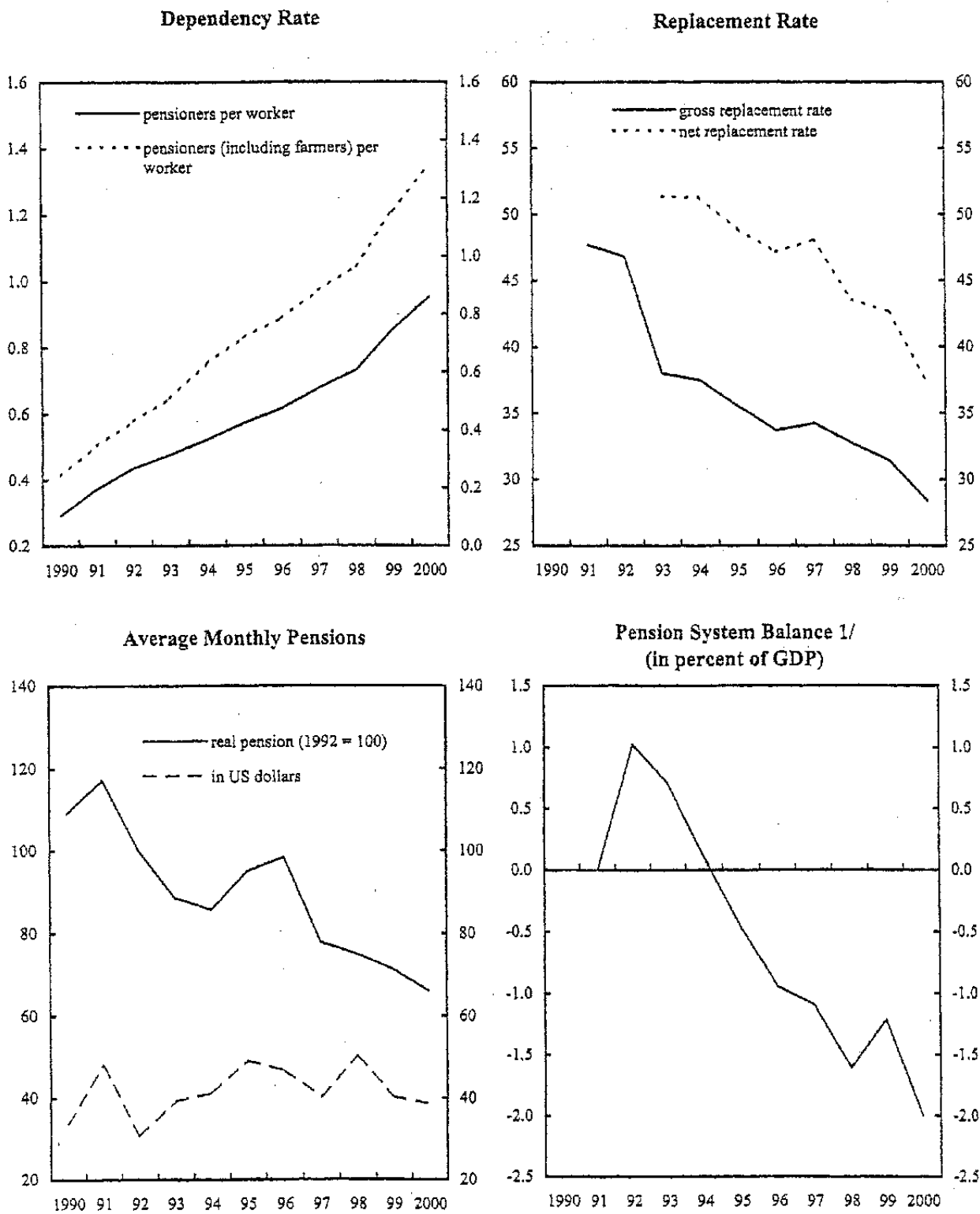
32. In the absence of comprehensive reform, past "fixes" have compounded the underlying imbalance.

- In the first place, **social security contributions** were increased in steps (see above). The large increases also raised non-wage labor costs of employment, thus contributing to higher unemployment as well as enhancing incentives for tax evasion. These adverse dynamics have materialized in a fall in the number of contributors to the social security system—at a time when the working age population actually increased by some 0.3–0.5 percent per year. Moreover, with lacking enforcement of financial discipline, large-scale and loss-making state-owned enterprises started to default on the employer contributions outright, which has led to a decline in the effective contribution rate collected. Finally, in conjunction with the very high contribution rates, the generous early retirement provisions have implied a very high implicit tax on additional work, further undermining the sustainability of the system (see Sin (2000)).²¹
- With efforts to increase pension fund revenue thus being met by only partial success, the **curtailment of benefits** assumed key importance. Efforts in this direction have progressed along two lines: first, the distribution of pensions was compressed by

²⁰ In 1991, a comprehensive early retirement scheme was introduced which increased the number of pensioners by almost 40 percent (see De Menil and Sheshinsky (2000)). Subsequent modifications relaxed early retirement provisions further for workers in selected employment categories, while at the same time greatly expanding the definition of these eligible categories. At the beginning of the decade, some 300,000 workers qualified for these categories, as compared to 2.3 million at present.

²¹ In conjunction with the absence of a penalty for early retirement—and the *de facto* option to work in the informal sector after retirement—the high contribution rates imply a very high tax on one additional year of work. The implicit tax amounts to the wage tax, plus the loss of one year equivalent of the lifetime present value of the pension. This becomes even more true to the extent that workers have been able to use ambiguous definitions so as to claim a disability pension when they have not yet achieved the necessary number of working years for a full pension. The number of disability pensions has tripled between 1990 and 2000, and now stands at 600,000.

Figure II.4. Romania: Pension System Indicators, 1990-2000



Source: Data provided by the Romanian authorities, and staff and World Bank projections.

1/ Before state budget subsidies.

capping increases in high pensions while ensuring a higher rate of increase in low pensions—further eroding the DB mechanism.²² Secondly, pensions have been increased by less than the rate of inflation. However, both “solutions” had adverse implications. On the one hand, in the last three years, a cycle has emerged, in which a round of pension compression was followed by a round of “decompression”, while, on the other hand, caps on real pension benefits were being secured throughout by incomplete inflation adjustment. However, as much as inflation has permitted a control of real pension benefits, it has by the same token introduced ever larger demands for pension increases, heightening concerns about the sustainability of the pension system.

- There have also been attempts at **structural reform**, so as to rid the system of non-core, non-insurance activities. In this vein, the farmers’ pension fund was abolished in August 2000, and folded into the public pension system. While the financial base of that fund had been narrow and underperforming, the measure nevertheless further worsened the financial situation of the existing system as no new revenue source was specified. Moreover, the authorities tried to widen the net of contributors in mid-2000 by subjecting workers under “civil contracts” (mostly part-time contracts) to full social security contributions (see above). However, the outcome has been mixed, reflecting both the high incentive for tax evasion given the implied effective doubling of the marginal wage tax rate, as well as the very poor administrative capacity for handling the new contributors.

33. **The pension system is now unsustainable in a number of dimensions.**²³ The system is headed toward a dependency ratio (the number of pensioners per contributor) of 1 and higher, while statutory contribution rates have become unproductively large (they are on the wrong side of the Laffer curve), and pensions have reached an historic low. Meanwhile, the deficit of the pension system continues to increase.

- **An ever growing number of pensioners is met by continuing declines in the number of contributors.** Under the present system—with statutory early retirement,

²² There were some 50 indexation adjustments of pensions during the 1990s which, however, did not reverse the erosion of real pensions (De Menil, Hamayon and Seitan, 1999). Indexation increases were agreed between the Ministry of Labor and trade unions as well as employers’ and pensioner’s organizations. While initial increases were substantial and drastically increased the real value of pensions compared to preceding months, rampant inflation and delays in the following indexation resulted in steadily declining real pensions.

²³ The same—however in even more drastic form—holds true for the farmers’ pension system. With a very small number of contributors (around 80,000), the farmer’s system supports 1.7 million pensions (up from a level of less than 1 million in 1989). Notwithstanding past and ultimately unsuccessful attempts to broaden its financial base by earmarking a food products tax, the system delivers only extremely small pensions.

selective early retirement for large segments of the workforce, and a ballooning number of disability pensions—workers retire on average at age 54 (men) and 50 (women), with just under 30 and 25 years of service, respectively. They are legally entitled to a lifetime pension of some 50 percent of their best 5 years of earnings—typically, given Romania's inflation levels, the last 5 active years—while the life expectancy at pension age is 15 years for men and 22 for women (Sin (2000)). These factors have resulted in almost a doubling in the number of pensioners between 1989 and 2000. At the same time, the number of contributors has fallen by almost 40 percent.

- **Contribution rates have reached excessive levels.** They are not only extremely high by international standards, but imply further incentives for early retirement and tax evasion, as evidenced by the decline in compliance estimated above.
- **The replacement rate has continued to fall and put pensioners at a high risk of poverty.** Both net and gross replacement rates are now less than 75 percent of levels recorded in 1993, with much of the decline having occurred in the last four years. An average monthly pension now amounts to some US\$40. Given these developments, pensioners, who in the early to mid-1990s tended to be relatively better off than other population segments, have recently been identified as one of the major groups threatened by poverty.
- **Deficits of the pension system have continued to mount.** After recording surpluses through 1994, the pension system had to subsequently rely on transfers from the central government budget to balance its books. By 1998, the deficit had amounted to 1.5 percent of GDP, and recent World Bank estimates project a deficit of some 2 percent of GDP for 2000.
- **In addition, the current system also fails the test for fairness, from both an inter- and intra-generational perspective.** Regarding the first, it burdens future generations with ever higher contribution rates and/or lower replacement rates. Regarding the second, the lack of a proper DB mechanism implies net transfers to workers with less-than-complete work history.

34. **Demographic trends have now also turned sharply adverse.** According to World Bank projections, Romania's population is projected to fall from 22.6 million to 19 million by 2050 (see Table II.5). During this period, the population will age rapidly, and the old-age dependency ratio will double. With these trends, a World Bank study has estimated that an unchanged pension system would require further increases in contribution rates (from 37.5 percent today to 60 percent in 2050) or lower replacement rates, from more than 30 percent at present to less than 20 percent in 2050 or a combination between these two (see Sin (2000)).

Table II.5. Demographic Trends, 1999–2050				
	1999	2000	2025	2050
Population (in millions)	22.4	22.3	20.6	19.1
Old age dependency rate	31.2	31.2	40.2	62.4
Life expectancy at birth (male/female)	66.0/73.7	66.2/73.8	69.4/76.2	72.4/78.5
Life expectancy at age 20 (male/female)	48.6/55.8	48.7/55.8	51.5/58.0	54.3/60.1
Life expectancy at retirement (male/female)	14.5/21.6	14.6/21.7	16.7/23.6	18.8/25.5
Source: Sin (2000)				

35. **Reform has been initiated.** As a stop-gap measure, the authorities have identified urgent steps, which are slated to become effective next year. The self-employed are to be made subject to social security contributions; a “points system” linking wage history and benefits modeled after the German system, and designed to limit the replacement rate to 45 percent, is to be introduced;²⁴ all pensions are to be indexed to the CPI; and the retirement age is to be increased by two years initially, and subsequently by another three years over a 13-year period.²⁵

36. **But more will need to be done.** Even with these reforms, the financial decline of the public pension system is only projected to be arrested, but not reversed, with a deficit of 2 percent of GDP in 2001, falling only to 0.7 percent by 2005, and—after dramatically increasing in the interim—again reaching 1 percent of GDP in 2050. Moreover, the effect of these reforms will still need to be seen once they are implemented, and may in general not provide much of a short-term relief: given the very high contribution rates, the general extension of the obligation to contribute is likely to result in increased tax evasion;²⁶ the

²⁴ The points system is designed to take into account a worker’s entire wage and employment history by assigning scores to every year of contributions. The score (points) will be a function of the worker’s monthly gross wage during any given year in comparison to the economy-wide monthly gross average wage in that same year. At retirement, a worker will have a number of points given by the sum of all the yearly scores. The system is to be calibrated by valuing the points such that a hypothetical newly retired individual who has worked each year of its work history at the economy-wide average wage will achieve a replacement rate of 45 percent.

²⁵ The initial increase in the statutory retirement age to 62 for men and 57 for women only restores the legal statutory retirement age, which was previously subject to a generalized 2-year early retirement.

²⁶ International evidence suggests that coverage of the self-employed is unlikely to raise significant revenue, as the administration of self-employed contributions is usually too

(continued)

maximum replacement rate guaranteed under the new law is still significantly larger than the current effective replacement rate of some 35 percent (a 14 percent increase) and—should this prove unaffordable—could no longer be adjusted in real terms by inflation, given the explicit full indexation mechanism; and the envisaged initial increase in the statutory minimum retirement age has reportedly triggered a substantial increase in early retirement in 2000, thereby already eroding the potential savings, and in any event will need to be protected by tightening eligibility requirements for disability pensions. The fact that the current legal minimum retirement age of 60 and 55 years for men and women, respectively, has been consistent with actual average retirement ages of 54 and 50 years highlights the need to tighten administrative procedures.

37. **A more comprehensive reform will need to tackle the underlying problems in the public system, and tough choices will need to be made.** As long as contribution rates persist at current levels, tax evasion will persist, or—if enforcement were considerably toughened—significant additional unemployment would arise from the implied increase in the effective cost of employment. A reduction in statutory contribution rates is, therefore essential. More ambitious increases in the retirement age may also need to be considered.²⁷ Also, bringing the female retirement age in line with the male retirement age might be a useful measure. In any event, the outright elimination of, or drastic cuts in privileged pension categories will be essential, while tightened eligibility requirements for disability pensions and maternity leave need to be introduced, preferably accompanied by shifting their financing to the general government from the pension system. Moreover, it needs to be recognized that social protection schemes—such as the past “compressions”—have no place in DB entitlements, but should, instead, be met by budgetary social policy.

38. **There is no “silver bullet” which can obviate the need for difficult reform.** In particular, while being an essential addition to a sustainable pension system in the longer term, the introduction of a private fully funded pension system in the current circumstances may be premature.²⁸ It will cut contribution revenue—by siphoning off previous contributions from the PAYG system to the funded system—while leaving the PAYG pension liabilities unchanged. In the short term this will increase the deficit, resulting in a transitory gap of some 1.5 percent of GDP over the next years, according to recent World

complicated. Thus, many countries do not even try to mandate the self employed into contributions.

²⁷ Given the projected demographic trends, this may also be required by economic efficiency considerations as it may well prove economically too costly to retire experienced workers early.

²⁸ World Bank projections indicated that a joint PAYG/funded system could achieve a cash surplus of 0.5 percent of GDP in the year 2050, as compared to a deficit of one percent of GDP under an exclusive PAYG system.

Bank estimates.²⁹ Such transitory gaps are a normal feature of introducing a funded system, and countries have typically relied on one or a mixture of the following mechanisms to cover the gap: cutting benefits, raising contributions, earmarking privatization revenue, or issuing debt. The difficulty is that none of these options is very attractive—or even feasible—in the current Romanian circumstances: the pension benefits and contributions have already reached unsustainably low and high levels, respectively; privatization revenue is projected to dry up, while issuing new debt and the attendant interest costs in fact will amount to a straightforward transfer of budgetary funds to the holders of such debt, which may not at this point be the best (or fairest) use of scarce public pension fund resources. Moreover, given the poor record of financial market development and supervision (see Chapter IV), some considerable caution is in order before private fund managers are licensed.

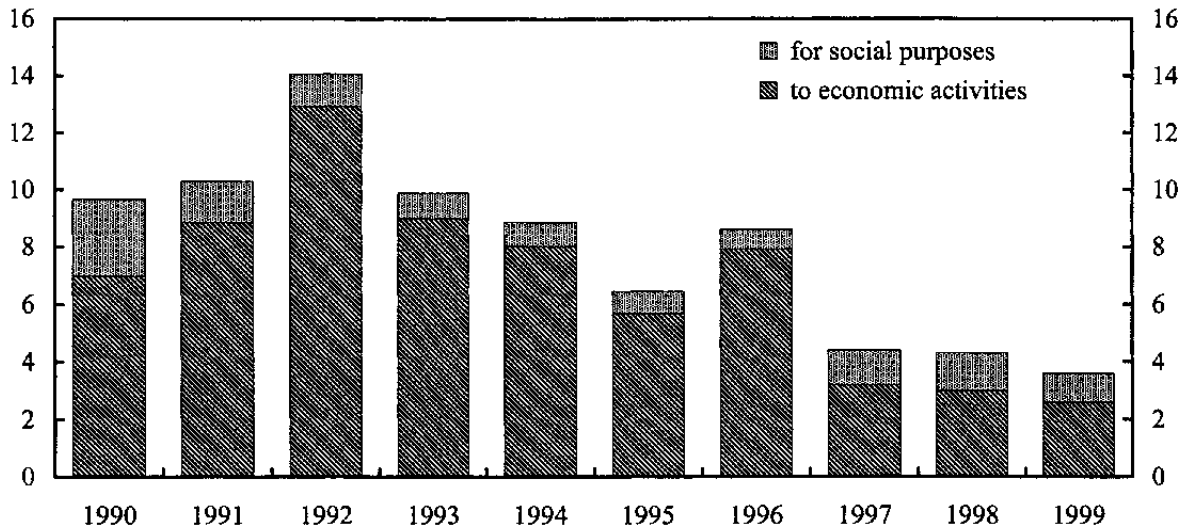
Other transfers and subsidies

39. Sharp increases in transfer and subsidy expenditures marked the beginning of the transition process. By 1992, subsidies and transfers amounted to some 23 percent of GDP, more than twice their level in the late 1980s. While much of the increase reflected poor classification of expenditure and the highly distorted public expenditure environment under the Ceaucescu regime, it is not out of line with developments encountered in other transition economies at the launch of the transition process. However, in Romania, the rise contributed to fiscal sustainability problems as it proved politically difficult to scale back these payments—and to avoid demands for the extension of new ones—while the overall budgetary revenue envelope tightened.

40. Reflecting increasing difficulties in financing these expenditures within a given budgetary envelope, a large share was moved off-budget in 1993. In particular, subsidies to energy-intensive industry and to agriculture were now starting to be extended in the form of directed credit (see Box II.1). In support of these operations, the National Bank started to incur large external debt—from a level of zero in 1992 to 4.8 percent of GDP by 1996—and major state owned banks accumulated significant non-performing loans. On the other hand, the removal of price difference subsidies resulted in the accumulation of large payments arrears.

²⁹ In other words, the introduction of the funded pension pillar would imply a pension system deficit of 3–3.5 percent of GDP, higher than the targeted deficit of the consolidated general government under the Romanian Medium-Term Economic Strategy (MTES). Therefore, for the introduction of the private pillar to be consistent with the MTES, the remainder of the consolidated government would need to run a surplus of some 0.5 percent of GDP.

Figure II.5: Expenditure on Transfers and Subsidies, 1990–99
(Excluding pensions, in percent of GDP)



41. **After 1997, subsidy and transfer expenditures were reduced, the targeting was improved, but difficulties remained** (see Figure II.5). In conjunction with full price liberalization, price difference subsidies were drastically reduced. On the other hand, it was possible to increase allocations for social transfers, in particular for child allowances—albeit to a level still short of levels prior to 1992—and temporary transfer payments resulting from severance payments in the mining sector were brought on budget. Nevertheless, overall social conditions are estimated to have deteriorated—not an unexpected outcome, given the overall economic situation.³⁰ Also, while considerable progress was made in cutting subsidies and transfers to economic activities—in particular by ceasing quasi-fiscal support through the banking system—some sectors, such as public transportation and housing showed themselves resilient to cuts, in part, however, the result of explicit budgeting.³¹

³⁰ Some progress was made in reducing standard poverty measures in 1995 and 1996. (see OECD (1998)) However, these proved to be as unsustainable as the output growth recorded in these years, and by 1998 poverty standards had again increased. Moreover, poverty became concentrated in households headed by low-wage earners and pensioners (see Pop and Tesliuç (2000)). The latter trend suggests that the maintenance of low-value-added employment and the burdening of the pension system with social assistance tasks have failed to yield the expected poverty reducing outcomes.

³¹ For example, following a restructuring of the railways, an explicit budgetary subsidy (equivalent to 0.7 percent of GDP) was introduced in 1999. Previous subsidization of the
(continued)

Other primary expenditure

42. **Material and operating expenditure have recently recovered from earlier cuts.** In 1999, such spending amounted to 7.6 percent of GDP, up considerably from the level of 6.2 percent in 1996. While this is at the lower end compared to other central European countries, given data comparability difficulties, it would appear to be an adequate level for the time being, and to become more adequate once overstaffing is reduced.³²

43. **In a next step, fiscal reform will have to aim at improving management of material and operating expenditure.** Part of the recent recovery in material and operating spending reflected efforts of line ministries to secure expenditure through earmarking revenues into self financing "special funds". Indeed, the number of such funds has increased from 3 in 1992, to 25 in 2000. While these earmarking schemes have greatly limited the necessary room for budgetary maneuver to flexibly address shifting expenditure priorities, they have managed to increase the allocation to the health and roads sectors. The task is now to ensure that the allocations to such priority sectors result in efficient spending, well focused on priorities. Unfortunately, in the recent months considerable evidence has emerged that the special health fund is overwhelmed by administrative difficulties, resulting in wasteful spending in prestige projects, while key basic health funding has started to deteriorate again.

44. **Capital expenditure and net lending declined throughout the 1990s.** Much of the early reduction reflected the desirable elimination of unproductive showcase projects pursued under the Ceaucescu regime. In addition, the eventual acceleration of the privatization program after 1997 opened the possibility of private sector investment in infrastructure. However, there is evidence that recent cuts have begun to threaten the viability of the public infrastructure.

Interest expenditure

45. **Notwithstanding Romania's modest public indebtedness, interest expenditure assumed an increasing share of budgetary spending.** Having started out the decade with essentially no debt, Romania quickly accumulated a sizeable debt burden in order to finance large fiscal and quasi-fiscal deficits (see above). In 1999, interest payments amounted to 5.3 percent of GDP, representing 14 percent of all government spending, the highest level among Central Eastern European countries, with the exception of Albania, largely reflecting the failure to bring inflation under control. Apart from the rapid buildup of debt in the early transition period and continuous high levels of inflation, the acceleration in public interest expenditure is explained by the extension of significant loan guarantees, which were increasingly called up; haphazard and ultimately only partially successful stabilization

railroads was hidden in their accumulation of payments arrears. However, there is evidence that this practice has not yet been entirely discontinued.

³² Absolute spending is at a roughly equivalent level to the Czech Republic, but higher than other countries, except Albania and the Slovak Republic.

attempts; and the poor state of the domestic banking system. The following paragraphs discuss these points in more detail.

46. **The early years of transition witnessed a rapid buildup of public debt.** The nature of much of the debt financed expenditure is unclear, as budgetary accounts for the early years fail to show significant deficits.³³ Moreover, selected industrial enterprises and the agricultural sector benefited from government loan guarantees which by 1996 had reached 6.8 percent of GDP. As the fiscal accounts became more transparent, the underlying deterioration in the primary balance became also more evident.

Table II.6. Public Debt and Interest Expenditure, 1990–2000 1/											
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
	(In percent of GDP)										
Net government debt outstanding 2/	0.8	0.0	11.1	11.6	9.2	11.2	13.1	15.4	15.6	20.2	18.3
External	0.8	0.0	7.5	8.5	5.7	7.3	9.1	9.4	8.6	10.1	9.4
Domestic	0.0	0.0	3.7	3.1	3.5	3.9	4.0	6.0	7.0	10.1	8.9
<i>Of which: For bank restructuring</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.2	3.2	2.3	5.9	3.4
Government guaranteed debt	0.0	0.0	1.4	4.8	4.4	5.5	6.8	6.5	6.4	7.9	6.1
Interest payments	0.0	0.0	0.2	0.9	1.4	1.4	1.7	3.8	4.7	5.5	2.8
External debt	0.0	0.0	0.0	0.0	0.2	0.3	0.4	0.4	0.5	0.6	0.3
Domestic debt	0.0	0.0	0.2	0.9	1.2	1.2	1.4	2.7	3.5	4.4	2.0
Guaranteed debt 3/	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.8	0.6	0.5
Memorandum items:											
Implied average ex post real interest rate (in percent)											
Treasury bills	...	...	...	-48.0	-16.6	15.0	-12.4	2.8	28.8	27.4	-0.8
External debt	0.0	0.0	0.0	0.0	5.7	5.1	6.4	4.3	4.2	3.5	3.9
Implied default rate of guaranteed debt (in percent)	...	...	0.0	0.0	0.0	1.7	2.3	7.3	6.5	7.2	9.6
Primary balance (in percent of GDP)	1.0	3.3	-4.4	0.6	-0.9	-2.0	-3.1	-1.4	-0.7	1.7	1.1
Sources: Data provided by the Romanian authorities and Fund staff estimates.											
1/ Data for 2000 refer to June 30, 2000.											
2/ Excluding debt of the National Bank of Romania.											
3/ Includes principal repayments as well as interest on called guarantees.											

³³ In addition, the NBR also quickly accumulated substantial external debt, including, but not limited, to the Fund. From zero foreign indebtedness, the NBR had accumulated US\$2 billion (7.3 percent of GDP) of external debt by 1996.

47. Contingent liabilities increasingly turned into actual ones. Two main mechanisms were at work here:

- The **state owned banking system**, which until 1996 had served as a major conduit for quasi-fiscal subsidies to the heavy industry and agriculture, had accumulated a large nonperforming loan portfolio, and become arguably insolvent. Distress borrowing by ailing banks would have severely undermined the stabilization objective, and the government sought to recapitalize state-owned banks and to assume their accumulated bad debt. In this way, in 1997, government took over some three percent of GDP in additional debt for the purpose of partially recapitalizing Bancorex and Banca Agricola (see Chapter IV). However, continued poor management practices at these banks, as well as difficulties in financing past losses necessitated a renewed bail out in 1999, adding a further five percent of GDP in debt.
- **Loan guarantees** which had been generously extended through 1996 became called up more frequently. Many of these guarantees were extended so as to finance current operating and subsidy expenditures for state enterprises and agriculture. With little or no productive investment backing up these liabilities, default occurred with increasing frequency, further burdening the budget.

48. Eventual stabilization attempts and price liberalization introduced positive real interest rates. Over much of the period through 1996, the government was able to raise domestic finance at negative real interest rates. However, with repressed inflation rapidly building up, the comprehensive price liberalization in 1997 necessitated sharply higher interest rates so as to keep inflation from accelerating further. Reflecting tighter monetary conditions, real interest rates turned positive. While a significant reduction in the primary deficit as well as some pickup in privatization proceeds and considerable foreign financing accompanied the 1997 stabilization program, the situation was aggravated by a lack of progress in fiscal consolidation in 1998. This contributed to a pernicious macro policy mix with too loose a fiscal policy and too tight a monetary stance. Correcting this policy mix necessitated a renewed stabilization effort—this time supported by a larger fiscal adjustment in 1999 and 2000—with real interest rates having recently been drastically lower.

49. The overall debt dynamics for the period ahead are not unfavorable. Provided prudent macroeconomic policies are pursued, it should be possible to reduce the share of the interest bill in GDP over the next years. Given the comparatively low level of public debt, interest expenditure will be highly sensitive to the choice of the primary surplus target. In an illustrative scenario, and assuming positive single-digit real interest rates, the maintenance of an average primary surplus (including grants) of some 2.3 percent of GDP would bring down government interest expenditure to some 2 percent of GDP by 2004.

D. Concluding Observations and Issues for the Medium Term

50. While important progress has been made in fiscal reform—especially over the last two years—critical issues remain for the immediate period ahead. In the first instance, there is a question of philosophy: the authorities need to decide which model of a government Romania is to emulate: a full fledged welfare state, or a smaller government more attuned to recently observed revenue performance. If it is to aim to the same structure as Western European welfare states, it will be important to raise revenue to comparable levels. If such a route is chosen, this will require tax administration to make massive inroads so as to break the past experience of revenue erosion. However, even if the choice is to aim for a less broad government, important actions need to be taken so as to preserve the recent advances in tax policy and improve tax administration and the composition of public expenditure.

51. By and large, tax policy has made great strides, and the advances need to be preserved. In particular, it will require vigilance to preserve the integrity of company taxation against attempts to reintroduce selective incentives. Not doing so would risk repeating the pattern of the 1990 that has done so much harm in tarnishing Romania's reputation as a safe destination for investment. Building on the legal structure already implemented, an appropriately ambitious program of globalizing personal income taxation should be introduced. It will also be essential to improve tax administration, in particular to start bringing the VAT to its potential.

52. As concerns expenditure, a more sustainable way of keeping real expenditure allocations in check needs to be found. In the past, higher-than-targeted—and budgeted for—inflation has permitted the containment of real expenditure. However, this system has greatly burdened rational budget policy and is not sustainable as inflation expectations will ultimately run out of control; at any rate, it is inconsistent with the targeted disinflation over the medium term. Keeping expenditure in check will thus require real reform, particularly as concerns the reduction in overstaffing and a reform of the pension system. Moreover, recent problems regarding local authority finance and earmarked revenue will also be needed to be addressed.

53. Additional expenditure commitments are already on the horizon. First and foremost, the EU and NATO accession will put new demands on the budget (see Box II.3). In addition, efforts will have to be made to ameliorate social conditions and deep-seated pockets of poverty.

Box II.3: The Fiscal Implications of Accession to the European Union and NATO

Romania has entered in accession agreements with the North Atlantic Treaty Organization (NATO) and the European Union (EU) (on the latter, see Chapter VI). Both these plans will have important fiscal implications.

EU accession will require significant additional expenditure, particularly on agriculture, transport infrastructure and the environment. The EBRD estimates the annual accession costs for Romania to amount to 3.5 percent of GDP. While large grants from the EU have been earmarked to benefit these additional expenditures—SAPARD instruments for agriculture and ISPA instruments for infrastructure and environment, and PHARE instruments for institution building—averaging €650 million over the next 5 years, it is important to note that on a net basis, Romania will be confronted with an additional financing gap from EU accession, some 1 percent of GDP according to staff estimates. Many of the grants will require a domestic cofinancing component. Moreover, these grant-financed expenditures will in a short time give rise to recurrent operating and maintenance expenditure which have to be met from Romania's own budgetary resources. It is, therefore, important that great selectivity and budgetary prudence be exercised in allocating the available grant finance on high-priority and sustainable projects.

Romania's armed forces will have to undergo extensive restructuring in order to meet NATO requirements. At present, the Romanian armed forces structure is still characterized by a top-heavy mix with a large number of officers and conscripts, and a pronounced shortage of professional soldiers and non-commissioned officers (NCOs). In addition, the forces are not geared toward mobility and rapid deployment, while electronic communication, command, control, and intelligence (C3I) infrastructure falls far short of NATO standards. As a step in redressing these shortcomings, the armed forces, which amounted to some 204,000, were cut by some 26,000 staff since 1997, while conscription was cut by 11,000 in 2000 through greater selectivity. The target is to reduce force strength to 153,000 while reducing the numbers of officers and conscripts and boosting the ranks of NCOs and professional troops, which is, however, expected to be financed from the savings generated by the overall cuts. The cuts should also help to bolster the defense spending per soldier—which presently ranks among the lowest in Europe. On the other hand, additional capital outlays for upgrading readiness, mobility and C3I infrastructure can be expected to arise in pursuit of the targeted NATO membership in 2005.

Romania: Tax Summary (as of September 30, 2000) 1/

	Tax	Nature of Tax	Deductions and Exemptions	Rates	Remarks
A. Taxes on Income, Profits, and Capital Gains					
1	Individual income tax (salary tax and personal income tax)	Natural Romanian and foreign persons shall pay taxes for certain income in cash or in kind arising from: salaries, pensions, independent activities, transfer of the right to use, dividends, interest, income derived from the transfer of the ownership right on securities and shares, income derived from gambling, prizes and other incomes.	A personal deduction of 800,000 lei (around US\$40) and supplementary deductions, depending on the number of dependants. Certain incomes such as agricultural income, inherited amounts, donations, etc. are not subject to taxation. Exemptions are granted to members of diplomatic missions, pupils and students for prizes, etc.	The tax rate varies between 18 percent and 40 percent rate. The 40 percent rate is applicable in respect of the proportion of monthly income which exceeds 2.6 million lei (approximately US\$230).	Starting January 1, 2000, the Government Ordinance no. 73/1999 regarding the Individual Income Tax is in force. Salary taxes are calculated and withheld by employers at the same time that salaries are paid. Starting July 1, 2000 pensions above a monthly level of lei 2,000,000 are taxed (EO 87/2000). Income tax is paid to the State Budget.
a	Tax on income from intellectual property rights	Incomes from intellectual property rights are defined as those arising from know-how, inventions, copyrights, etc.	25 percent of gross income is generally deductible; copyright for monumental masterpiece: 40 percent of gross income is deductible.	15 percent on gross income as advanced payment throughout the fiscal year.	The income on intellectual property rights is included in the annual global income.
b	Dividend tax	Dividends paid by a Romanian company are subject to a dividend withholding tax regardless of whether the dividends are paid to Romanian or foreign shareholders -- legal or natural persons.		10 percent for legal persons; 5 percent for natural persons.	Where double taxation treaties provide for a different withholding tax rates than the domestic legislation, the most favorable rates shall apply.
c	Tax on interest	Interests paid by Romanian companies are generally subject to a withholding tax.	Romanian natural persons: interests on treasury bills on sight deposits and ANL bonds are exempted. Interests paid to nonresidents by Romanian banks for sight and term deposits, deposit certificates, and other saving instruments are exempted. (GO 83/1998)	1 percent for Romanian natural persons; 10 percent for nonresidents	Where double taxation treaties provide for a different withholding tax rates than the domestic legislation, the most favorable rates shall apply. Applicable for the non-residents who cannot prove their residence status.
d	Gambling tax	Incomes from gambling, premia in cash or in kind are subject to a withholding tax.	Income from premia, gambling, prizes lower than 3,470,000 is not taxed (GD 611/2000)	10 percent on gross income	

Romania: Tax Summary (as of September 30, 2000) 1/

	Tax	Nature of Tax	Deductions and Exemptions	Rates	Remarks
e	Tax on capital gains	Capital gains are defined as incomes derived from the transfer of property rights over stocks and securities if the selling price is higher than the acquisition price net of commissions and fees. It is a withholding tax.		1 percent	The tax on capital gains provided in Emergency Ordinance 73/1999 was recently modified through the Government Emergency Ordinance 87/2000 and will be applied starting January 1, 2001. During the 2000 fiscal year, a 1% tax rate applies to the transaction value.
f	Tax on other incomes	Other incomes than those specifically indicated in the Government Ordinance 73/1999 as subsequently modified and completed are subject to a withholding tax.		10 percent	Other incomes are usually incidental earnings.
2	Profit Tax	Legal entities undertaking business in Romania are liable for payment of corporate income tax ("profit tax").	In general, all expenses are deductible except certain categories such as penalties, fines, protocol expenditures exceeding a certain level, provisions, etc.	Standard tax rate: 25 percent; Additional rate of 50% for night clubs, bars, casinos; National Bank of Romania: 80 percent. Legal entities exporting directly goods and services benefit from 5 percent profit tax rate for the revenues earned from exports.	The fiscal year is the calendar year. Profits must be determined on a monthly basis, cumulated from the beginning of the fiscal year. However, payments of profit tax must be made on quarterly basis (except NBR and banks - on a monthly basis). Reserves, set up from the net profit, used to increase the share capital are taxed at a rate of 10 percent.
B. Social Security Contributions					
3	Employees: a) supplementary pension to Social Security Budget b) unemployment fund; c) health fund	Romanian employees are required to contribute to the system of supplementary pension, health and unemployment security. Employees under civil contracts are required to contribute to social and health security.		Supplementary pension: 5 percent; Unemployment: 1 percent; Health: 7 percent	Employees' contributions are to be calculated, withheld and paid to the State Budget/Social Security Budget by employers at the same time that salaries are paid.

Romania: Tax Summary (as of September 30, 2000) 1/

	Tax	Nature of Tax	Deductions and Exemptions	Rates	Remarks
4	Employers: a) social security fund; unemployment fund; c) health fund; d) social solidarity fund; e) state education fund	Romanian employers are required to contribute to the system of social, health and unemployment security, etc.	Under certain conditions the employers might benefit from discounts on social security contributions such as: - for payment in time: 7 percent; - new jobs creation: between 4 to 6 percent depending on the number of new jobs created.	Social security: - group I - 40 percent; - group II - 35 percent; - group III - 30 percent; Unemployment: 5 percent; Health: 7 percent; Social solidarity fund: 3 percent; State education fund: 2 percent.	Social security contribution paid by employers is aimed at covering the following main expenses: pensions; social benefits (according to the pension legislation), maternity leave, etc. The social security contribution rates are differentiated on working groups (group I, group II, and group III) depending on the working conditions.
C. Domestic Taxes on Goods and Services					
5	Value added tax	VAT generally applies to imports, domestic supply of goods and services, and transfer of real estate. Unless specifically exempted, all commercial transactions are subject to VAT.	a) imported raw materials and components of finished goods which are to be subsequently exported within 45 days from the import date, under a certificate issued by the Ministry of Finance; b) services rendered by foreign suppliers which are exempted domestically; c) imports of goods financed by international loans with Romanian State guarantee, made by public institutions.	The standard VAT rate is 19 percent. Exported goods and services, as well as transportation and services directly connected to the export of goods whose consideration is paid in hard currency are zero rated.	Imports are generally subject to VAT at the Custom Office. The "import" of services is also subject to VAT under the reverse charge mechanism. Romanian companies should register as VAT payers if their annual turnover exceeds ROL 50 million. Registration as a VAT payer where turnover is under this threshold is optional/otherwise, the registration is optional.
6	Excise tax	Excise duties are imposed on certain imported and domestically produced goods. Excise duties are mainly charged on cigarettes, alcohol, tobacco, coffee, fuels, gambling and other luxury products.	Certain categories such as products exported directly, goods sold in duty-free shops, goods delivered to the state reserves, etc. are exempted.	Excise tax is generally denominated in euro, and varies among different groups of products: - alcohol: 140 - 180 euro per hectoliter of alcohol; - bear and wines: 0.55 - 2.75 euro per hectoliter on alcoholic degree; - tobacco: 2 - 14 euro per 1,000 cigarets or kg.; - fuels: 40 - 270 euro per ton; - coffee: 775 - 1,035 euro per ton; - automobiles: 1 - 18 percent; - other luxury products: 15 - 50 percent; - oil: 4 euro/ton; - natural gas: 7.4 euro/1000 cubic metres	

Romania: Tax Summary (as of September 30, 2000) 1/

	Tax	Nature of Tax	Deductions and Exemptions	Rates	Remarks
7	Social stamp duties	Social stamp takes two forms: a) social stamp on gambling levied on the price of each participation at TV interactive games and at all the other categories of games; b) social stamp levied on the value of newly imported cars having minimum engine capacity of 2,000 cubic m., acquired by natural or legal persons.		a) social stamp duty over gambling: 5 percent for each participation in TV games and 10 percent for participating in other games; b) social stamp tax on imported cars: 1 percent	The social stamp duties were introduced in June 30, 1999, as a financing source for the National Solidarity Fund to contribute to reducing poverty for families under extremely difficult situations.
8	Royalties	The tax is withheld and paid by Romanian companies on behalf of the non-resident companies which are the beneficial owners of the royalties.		15 percent withholding tax	Where double tax treaties provide for a different withholding tax rates than the domestic legislation, the most favorable rates shall apply.
9	Road tax	The tax is included in the price of fuels and both legal entities and natural persons are subject to taxation.			The road tax represents a financing source of the Road Fund (a component of the consolidated budget)
D. Taxes on International Trade and Transactions					
10	Import duties a) Custom duties b) Import surcharge	Customs duties vary depending upon the product being imported. Customs duties must be paid at the time the goods are imported into Romania, or when they are removed from "bonded" premises. The import surcharge is applied to all imported goods with some exceptions.		Import surcharge: 2 percent	Preferential duty rates apply to a wide range of products and the trend is to reduce customs duties in respect of imported goods originating from EU and EFTA member countries. Starting with October 10, 1998, an import surcharge of 6 percent has been introduced. In 1999 the rate declined to 4 percent, and beginning with January 1, 2000 the surcharge decreased to 2 percent. On January 1, 2001, the import surcharge is to be removed.
E. Local Taxes					
11	Tax on buildings	The building tax is payable annually. Both individuals and economic entities are subject to building tax.	The buildings used by public institutions, museums, historical, archeological, architectural monuments, churches and some special constructions are exempted.	Natural persons: 0.1-0.2 percent of the building value set in the annex 1 to the law legal entities: between 0.5 percent and 1 percent of the accounting value; the rate is decided by the local councils.	The value of the building depends on the kind, destination and quality of the building.

Romania: Tax Summary (as of September 30, 2000) 1/

	Tax	Nature of Tax	Deductions and Exemptions	Rates	Remarks
12	Tax on land	The tax on land is payable annually by both natural persons and legal entities. The tax is calculated on the basis of square meter of land.	yards smaller than 1,000 square meters owned by natural persons are exempted; the land occupied by buildings, the land exceeding 1000 square meters, located in zone D of the largest 7 cities in the country (category 2 of localities) and in the categories 3-5 of localities, the land of the monasteries, cemeteries and churches, the land used in agriculture by the legal entities and the land located outside the localities are tax exempted.	Between lei 50- lei 2,500 per square meter	The tax rate varies depending on the location of the land (cities, villages, etc.).
13	Tax on means of transportation	The tax on transportation means is based on the vehicle's engine capacity. Both legal entities and natural persons are subject to taxation.	public transportation and public institutions are not taxed. Vehicles set for the persons with handicap are tax exempted.	Between 24,000 lei - 152,000 lei per each 500 cubic centimeters of the engine's capacity.	Water transportation means are taxed separately and the tax value is set up in lei by the law.
14	Advertising tax	Beneficiaries of the advertising services, regardless of the manner in which they are provided, are bound to conclude advertising contracts in this respect and to pay to the local budgets advertising tax applied to the contractual value, net of VAT.		1 percent to 3 percent of the contract value The tax varies between 50,000 lei and 650,000 lei per year and square meter used for display.	
15	Other local taxes	Other local taxes provided by the legislation are mainly taxes for resorts, licence for constructions; tax on temporary use of public areas, etc.			

1/ The table does not include local taxes set individually by local authorities.

**ROMANIA: SUMMARY OF RECENT DEVELOPMENTS ON
VALUE ADDED AND INCOME AND WAGE TAXATION, 1996-2000**

A. Value Added Tax

1996	
STANDARD RATE	REDUCED RATE
<p>18%</p> <p>All deliveries of goods, real-estate transfers, and services rendered, from within the country and from abroad, except those taxed at the reduced rate</p>	<p>9%</p> <ul style="list-style-type: none"> a) meat of animals and poultry, including organs and tripe, sold fresh, as products and preserved foods; b) fish and fish products, including semipreserved; c) milk, powdered milk and dairy products; d) edible fats and oils; e) medications for human and veterinary use, pharmaceutical substances, medicinal plants, medical equipment and other goods to be used exclusively for medical, surgical, dental or veterinary purposes; f) live animals of the following species: bovines, swine, sheep and goats; g) live fowl of domestic species; h) agricultural and land-improvement works; i) chemical and mineral fertilizers, insecticides, fungicides and herbicides; j) fresh vegetables and fruits; k) advertising and publicity activities conducted through newspapers and magazines, except publications which are primarily for advertising – <u>beginning February 1, 1996.</u>
1997	
<p>18%</p> <p>All deliveries of goods, real-estate transfers, and services rendered, from within the country and from abroad, except those taxed at the reduced rate</p>	<p>9%</p> <ul style="list-style-type: none"> a) meat of animals and poultry, including organs and tripe, sold fresh, as products and preserved foods; b) fish and fish products, including semipreserved and preserved foods, excluding caviar; c) milk, powdered milk and dairy products; d) edible fats and oils; e) medications for human and veterinary use, pharmaceutical substances, medicinal plants, medical equipment and other goods to be used exclusively for medical, surgical, dental or veterinary purposes;

1997 (continued)	
	<ul style="list-style-type: none"> f) live animals of the following species: bovines, swine, sheep and goats; g) live fowl of domestic species; h) agricultural and land-improvement works; i) chemical and mineral fertilizers, insecticides, fungicides and herbicides; j) fresh vegetables and fruits – <u>until April 29, 1997</u>; k) advertising and publicity activities conducted through newspapers and magazines, except publications which are primarily for advertising; l) frozen, dried, dehydrated, preserved or processed edible vegetables and fruits – <u>until April 29, 1997</u>; m) eggs of domestic species of fowl; n) flour, semolina, cornmeal, flour pastes, biscuits, sugar, rice; o) uniforms for preschool and elementary-school pupils; p) articles of clothing and footwear for babies; q) urban public transport for travellers, including that which also traverses a distance beyond the urban route. r) prostheses and orthopedic products – <u>beginning August 28, 1997</u>
1998–1999	
<p>22% – <u>beginning February 1, 1998</u></p> <p>All deliveries of goods, real-estate transfers, and services rendered, from within the country and from abroad, except those taxed at the reduced rate</p>	<p>11% – <u>beginning February 1, 1998</u></p> <ul style="list-style-type: none"> a) edible meat of animals and poultry, including organs and tripe, sold fresh, in prepared form and preserved; b) fish and edible fish products, including semipreserved and preserved foods, excluding caviar; c) milk, powdered milk and edible dairy products; d) edible fats and oils; e) eggs of domestic species of fowl; f) flour. <p>The reduced rate of 11% applies to economic agents who are producers, importers and those who market the products mentioned above, with the exception of economic agents in the public nutrition network and those who apply the commercial markup in the area of public nutrition.</p>

1998-1999 (continued)	
	<p>g) medications for human and veterinary use, pharmaceutical substances, medicinal plants, medical equipment, other goods to be used exclusively for medical, surgical, dental or veterinary purposes;</p> <p>h) prostheses, orthopedic products;</p> <p>i) live animals of the following species: bovines, swine, sheep and goats;</p> <p>j) live fowl of domestic species;</p> <p>k) uniforms for preschool and elementary-school pupils;</p> <p>l) articles of clothing and footwear for children less than one year old;</p> <p>m) urban public transport for travellers, including that which also traverses a distance beyond the urban route;</p> <p>n) agricultural works;</p> <p>o) chemical and mineral fertilizers, insecticides, fungicides and herbicides;</p> <p>p) certified and phytosanitarily treated seed of sunflower, hybrid maize and sugar beet;</p> <p>r) bread, wheat for consumption and for seed.</p> <p>s) publishing, printing and selling of newspapers and magazines, with the exception of activities whose nature is that of advertising and publicity – beginning October 1, 1998.</p>
2000	
<p>19%</p> <p>All deliveries of goods, real-estate transfers, and services rendered, from within the country and from abroad</p>	<p>- has been eliminated -</p>

B. Income and Wage Taxes

1996	
Income from liberal professions, commercial income, income from works of literature, art and science, including that resulting from inheritance of the rights to such works	Progressive rates according to income brackets, ranging from 17% to 43% (the tax cannot exceed 38% of taxable yearly income)
Income from rental of real estate	Progressive rates according to brackets of taxable income, ranging from 6% to 45%
Wages	Progressive rates according to income brackets, ranging from 5% to 60%
Dividends to partners or shareholders (legal entities or individuals)	10%
Profit	38%
Exceptions:	
– The National Bank of Romania	80%
– Gaming, bars, nightclubs	60%
– Taxpayers who obtain at least 80% of their income from agriculture	25%
– Permanent headquarters	44.2%
– Consumer cooperative organizations	25%
Interest earned by nonresidents on commercial loans	15%
Commissions earned by nonresidents in commercial transactions	15%
Income from activities conducted within the territory of Romania by nonresidents in the area of technical assistance, education of personnel, quantity and quality control of goods, scientific or technical consulting, medical consultations, evaluations, and other services rendered.	15%
Income from air and sea transport provided by nonresidents	15%
Income earned from Romania by nonresidents, from the transfer or utilization of invention patents, licenses, manufacturing trademarks and other similar rights	20%
Income from activities of art or entertainment, other than those performed for wages or as collaborations, earned from Romania by nonresidents	25%
1997	
Income from liberal professions, commercial income, income from works of literature, art and science, including that resulting from inheritance of the rights to such works	Progressive rates according to income brackets, ranging from 17% to 43% (the tax cannot exceed 38% of taxable yearly income)
Income from rental of real estate	Progressive rates according to brackets of taxable income, ranging from 6% to 45%
Wages	Progressive rates according to income brackets, ranging from 5% to 60%
Dividends to partners or shareholders (legal entities or individuals)	10%
Profit	38%
Exceptions:	
– National Bank of Romania	80%
– Gaming, bars, nightclubs	60%
– Taxpayers who obtain at least 80% of their income from agriculture	25%
– Permanent headquarters	44.2%
– Consumer cooperative organizations	25%

1997 (continued)	
Interest earned by nonresidents on commercial loans	15%
Commissions earned by nonresidents in commercial transactions	15%
Income from activities conducted within the territory of Romania by nonresidents in the area of technical assistance, education of personnel, quantity and quality control of goods, scientific or technical consulting, medical consultations, evaluations, and other services rendered.	15%
Income from air and sea transport provided by nonresidents	15%
Income earned from Romania by nonresidents, from the transfer or utilization of invention patents, licenses, manufacturing trademarks and other similar rights	20%
Income from activities of art or entertainment, other than those performed for wages or as collaborations, earned from Romania by nonresidents	25%
1998	
Tax on income from activities conducted on a free-enterprise basis; tax on income from the utilization, in any form, of a copyright, or of rights connected with a copyright, including such utilization by any persons who have acquired these rights by inheritance	Progressive rates according to brackets of taxable income, ranging from 15% to 35%
Tax on income from rentals, from subleases, or from establishment of the right of usufruct, use or inhabitation, as well as for contracts of power of attorney and transfer	A rate of 15% on taxable yearly income
Tax on gross amounts owed to individuals for services rendered and work performed by them, as well as for any activity conducted outside of the unit at which the individual income beneficiary is a paid employee.	Progressive rates according to taxable-income brackets, ranging from 10% to 40%
Income earned by individuals who deliver merchandise or sell goods by consignment.	15%
Monetary rights due for inventions and innovations	20%
Income from prizes and any earnings of the same nature	10%
Interest paid by bank companies on individuals' deposits	1%
Wages	Progressive rates according to income brackets, ranging from 21% to 45%
Dividends to partners or shareholders (legal entities or individuals)	10%
Profit	38%
Exceptions:	
- The National Bank of Romania	80%
- Bars, nightclubs	60%
- Taxpayers who obtain at least 80% of their income from agriculture	25%
- Consumer cooperative organizations	25%
Interest paid to nonresidents	10%
Interest paid to nonresidents by banks registered in Romania for sight deposits and time deposits, for certificates of deposit as well as for those connected with any savings instruments.	Exempt as of September 1, 1998 and thereafter

1998 (continued)	
Interest paid to nonresidents on foreign loans contracted and/or guaranteed by the Government of Romania, by the National Bank of Romania, by territorial administrative units or by a financial institution in which the State has controlling interest, as well as those connected with government bond issues in the domestic and the foreign capital market.	Exempt
Commissions paid to nonresidents	15%
Income earned by nonresidents and originating from the rendering of services of any nature, including medical consultations and surgical operations.	15%
Income paid to nonresidents for international transport by air and by ship, road and railway	15%
Income from royalties paid to nonresidents	15%
Income paid to nonresidents for activities of art, entertainment or sports conducted in an independent manner, including income earned from the organizing of contests	20%
Income paid to nonresidents active in letters, art and science, as a result of activities of this type carried out in an independent manner in Romanian territory	20%
Prizes won by nonresidents, awarded to them in contests organized in any field, other than those in the category of wages	10%
Income earned from gambling by nonresident individuals, for amounts which exceed the ceiling of 3,000,000 lei	10%
1999	
Tax on income from activities conducted on a free-enterprise basis; tax on income from the utilization, in any form, of a copyright, or of rights connected with a copyright, including such utilization by any persons who have acquired these rights by inheritance	Progressive rates according to brackets of taxable income, ranging from 15% to 35%
Tax on income from rentals, from subleases, or from establishment of the right of usufruct, use or inhabitation, as well as for contracts of power of attorney and transfer	A rate of 15% on taxable yearly income
Tax on gross amounts owed to individuals for services rendered and work performed by them, as well as for any activity conducted outside of the unit at which the individual income beneficiary is a paid employee.	Progressive rates according to taxable-income brackets, ranging from 10% to 40%
Income earned by individuals who deliver merchandise or sell goods by consignment.	15%
Monetary rights due for inventions and innovations	20%
Income from prizes and any earnings of the same nature	10%
Wages	Progressive rates according to income brackets, ranging from 21% to 45%
Dividends to partners or shareholders (legal entities or individuals)	10%

1999 (continued)	
Profit	38%
Exceptions:	
- The National Bank of Romania	80%
- Bars, nightclubs	60%
- Taxpayers who obtain at least 80% of their income from agriculture	25%
- Consumer cooperative organizations	25%
Interest paid to nonresidents	10%
Interest paid to nonresidents by banks registered in Romania for sight deposits and time deposits, for certificates of deposit as well as for those connected with any savings instruments.	Exempt
Interest paid to nonresidents on foreign loans contracted and/or guaranteed by the Government of Romania, by the National Bank of Romania, by territorial administrative units or by a financial institution in which the State has controlling interest, as well as those connected with government bond issues in the domestic and the foreign capital market.	Exempt
Commissions paid to nonresidents	15%
Income earned by nonresidents and originating from the rendering of services of any nature, including medical consultations and surgical operations.	15%
Income paid to nonresidents for international transport by air and by ship, road and railway	15%
Income from royalties paid to nonresidents	15%
Income paid to nonresidents for activities of art, entertainment or sports conducted in an independent manner, including income earned from the organizing of contests	20%
Income paid to nonresidents active in letters, art and science, as a result of activities of this type carried out in an independent manner in Romanian territory	20%
Prizes won by nonresidents, awarded to them in contests organized in any field, other than those in the category of wages	10%
Income earned from gambling by nonresident individuals, for amounts which exceed the ceiling of 3,000,000 lei	10%
2000	
Income tax (independent activities, transfer of the use of assets, wages)	Yearly taxation standard comprising progressive rates according to brackets of taxable yearly income, ranging from 18% to 40%
Dividends to partners or shareholders (individuals)	5%
Interest earned by individuals	1%
Other income earned by individuals (income from gambling, income from prizes and bonuses, income from transfer of ownership of stock shares and commodities)	10%
Dividends to partners or shareholders (legal entities)	10%

2000 (continued)	
Profit	25%
Exceptions:	
– The National Bank of Romania	80%
– Bars, nightclubs, casinos	50%
– For the exporting of goods and rendering of services for which payment is collected in foreign currency	5%
Interest paid to nonresidents	10%
Interest paid to nonresidents by banks registered in Romania for sight deposits and time deposits, for certificates of deposit as well as for those connected with any savings instruments.	Exempt
Interest paid to nonresidents on foreign loans contracted and/or guaranteed by the Government of Romania, by the National Bank of Romania, by territorial administrative units or by a financial institution in which the State has controlling interest, as well as those connected with government bond issues in the domestic and the foreign capital market.	Exempt
Commissions paid to nonresidents	15%
Income earned by nonresidents and originating from the rendering of services of any nature, including medical consultations and surgical operations.	15%
Income paid to nonresidents for international transport by air and by ship, road and railway	15%
Income from royalties paid to nonresidents	15%
Income paid to nonresidents for activities of art, entertainment or sports conducted in an independent manner, including income earned from the organizing of contests	20%
Income paid to nonresidents active in letters, art and science, as a result of activities of this type carried out in an independent manner in Romanian territory	20%
Prizes won by nonresidents, awarded to them in contests organized in any field, other than those in the category of wages	10%
Income earned from gambling by nonresident individuals, for amounts which exceed the ceiling of 3,000,000 lei	10%

Note: For residents of countries, with which Romania has signed agreements for the avoidance of double taxation, in the period 1996–2000, income earned in the form of interest, dividends, royalties and commissions is taxed at the source, under the conditions and at the rates specified in these conventions, beginning from the date of application of the respective agreements (the date on which each agreement goes into effect, as well as the tax rate levels, is shown in the annex).

SUMMARY
of the agreements signed by Romania with other countries for avoidance of double taxation
(As of July 11, 2000)

No.	COUNTRY	No. and date of the Decree (Law) ratifying the Convention	Date from which it is effective	Solutions adopted with regard to taxation in the source country for income in:			
				Interest	Dividends	Royalties	Commissions
1	South Africa	59/13.07.1994	1.01.1996	15	15	15	***
2	Albania	86/18.10.1994	1.01.1996	10	10 15**	15	15
3	Algeria	25.12.04.1995	1.01.1997	15	15	15	***
4	England	26.03.02.1976	1.04.1976	10	10* 15**	15* 10**	12.5
5	Armenia	121/9.07.1997	1.01.1998	10	5* 10**	10	15
6	Austria	254/10.07.1978	1.01.1978	10	15	10	***
7	Bangladesh	221/04.09.1987	1.01.1989	10	10*	10* 15**	***
8	Belarus	102/26.05.1998	1.01.1999	10	10	15	***
9	Belgium	82/15.04.1977	1.01.1978- 31.12.1998	15	10	10	5
	Belgium (new)	126/16.10.1996	1.01.1999	10	5* 15**	5	5
10	Bulgaria	5/10.01.1995	1.01.1996	15	10* 15**	15	***
11	Canada	418/5.12.1979	1.01.1978	15	15	15* 10**	***
12	Czech Republic	37/23.06.1994	1.01.1995	7	10	10	***
13	China	5/24.01.1992	1.01.1993	10	10	7	5
14	Cyprus	261/9.07.1982	1.01.1983	10	10	5*	5
15	South Korea	18/8.04.1994	1.01.1995	10	7* 10**	7* 10**	10
16	Croatia	127/16.10.1996	1.01.1997	10	5	10	***
17	Denmark	389/27.10.1977	1.01.1974	10	10* 15**	10	4
18	U.A.E.	74/31.1.1993	1.01.1997	3	3 (exemptions)	3	3
19	Ecuador	111/9.11.1992	1.01.1997	10	15	10	10
20	Egypt	316/14/10/1980	1.01.1982	15	10	15	15

No.	COUNTRY	No. and date of the Decree (Law) ratifying the Convention	Date from which it is effective	Solutions adopted with regard to taxation in the source country for income in:			
21	Switzerland	60/13.07.1994	1.01.1994	10	10	(does not apply – see Protocol)	***
22	Russian Federation	38/16.06.1994	1.01.1996	15	15	10	***
23	Philippines	23/04.04.1995	1.01.1998	10 ⁰⁰⁰ 15 ^{0*}	10* 15**	10*** 15** 25	***
24	Finland	61/2.03.1978	1.01.1979 31.12.2000	10	10	10	3
	Finland (new)	201/24.12.1999	1.01.2001	5	5	2,5* 5	***
25	France	240/23.12.1974	1.01.1975	10	10	10	***
26	Georgia	45/26.03.1999	1.01.2000	10	8	5	5
27	Greece	25/12.03.1992	1.01.1996	10	45 20	7* 5**	5
28	India	221/04/09/1987	1.01.1988	15	15* 20**	22,5	5
29	Indonesia	50/2.03.1998	1.01.2000	12,5	12,5* 15**	12,5* 15**	10
30	Jordan	215/26.06.1984	1.01.1985	12,5	15	15	15
31	Israel	39/14.02.1998	1.01.1999	10 5	15	10	***
32	Italy	82/15.04.1977	1.01.1979	10	10	10	5
33	Japan	213/05.07.1976	1.01.1978	10	10	15* 10**	***
34	Kuwait	5/8.03.1993	1.01.1992	1	1 (exemptions)	20	***
35	Lebanon	10/21.03.1996	1.01.1998	5	5	5	***
36	Luxembourg	85/18.10.1994	1.01.1996	10	5* 15**	10	5
37	Malaysia	482/26.12.1983	1.01.1985	15	10	12	According to internal legislation
38	Malta	61/3.07.1996	1.01.1997	5	5*** 30***	5	10
39	Morocco	404/01.11.1982	1.01.1987	10	15	10	10 (see royalties)
40	Moldova	60/17.06.1995	1.01.1997	10	10	10* 15***	***

No.	COUNTRY	No. and date of the Decree (Law) ratifying the Convention	Date from which it is effective	Solutions adopted with regard to taxation in the source country for income in:			
41	Namibia	61/15.04.1999	1.01.2000	15	15	15	***
42	Nigeria	10/08.03.1993	1.01.1994	12,5	12,5	12,5	According to internal legislation
43	Norway	67/25.03.1981	1.01.1982	10	10	10	4
44	Netherlands	316/14.10.1980	1.01.1980 31.12.1999	10	10* 15**	10	5
	Netherlands (new)	85/15.12.1998	1.01.2000	3 (does not apply – see Protocol, point IX)	0* 10 15**	3 (does not apply – see Protocol, point X)	***
45	Pakistan	418/05.12.1979	1.01.1980	10	15**	12,5	10
46	Poland	6/10.01.1995	1.01.1996	10	5* 15**	10	10 (does not apply – see Protocol)
47	Portugal	63/15.04.1999	1.01.2000	10	10* 15**	10	***
48	R.F. Germany	625.21.11.1973	1.01.1972	10	10* 15* 25,75*	10	5
49	*) S.F.R. Yugoslavia	331/14.10.1986	1.01.1989	7,5	5 (exemptions)	10	10 (exemption)
50	R.F. Yugoslavia	122/9.07.1997	1.01.1998	10	10	10	10
51	U.S.A.	238/23.12.1974	1.01.1974	10	10	15* 10**	***
52	Syria	40/11.02.1988	1.01.1992	7,5	According to internal legislation	15* 10***	15
53	Slovak Republic	96/10.11.1994	1.01.1996	10	10	10* 15**	5
54	Spain	418/05.12.1979	1.01.1980	10	10* 15**	10	5
55	Sri Lanka	149/22.05.1985	1.01.1986	10	12,5	10	10
56	Sweden	432/31.10.1978	1.01.1978	10	10	10	10 ⁰⁰
57	Thailand	3/3.02.1997	1.01.1998	10 20 25	15* 20**	15	10
58	Tunisia	326/23.12.1987	1.01.1990	10	12	12	4

No.	COUNTRY	No. and date of the Decree (Law) ratifying the Convention	Date from which it is effective	Solutions adopted with regard to taxation in the source country for income in:			
59	Turkey	331/14.10.1986	1/01.1989	10	15	10	6
60	Ukraine	128/16.10.1996 15.01.1998	1.01.1998	10	10 15**	10 15**	***
61	Hungary	91/26.10.1994	1.01.1996	15	5* 15**	10	5
62	Uzbekistan	26/12.03.1997	1.01.1998	10	10	10	-
63	Vietnam	6/13.03.1996	1.01.1997	10	15	15	***
64	Zambia	215/26.06.1984	1.01.1993	10	10	15	***

*) The provisions of the agreement with the S.F.R. of Yugoslavia are applied in the case of Macedonia and Slovenia and for Bosnia-Herzegovina.

Dividends

** When participation in the company's capital represents at least 25% of the capital of the dividend-paying company.

Exception: Bangladesh, with 10%, and likewise in the case of the Netherlands (new agreement) for the second rate; Pakistan, with 20%; Hungary, with 40%; Greece, 45% – distributing company residing [in] Greece; 20% – company distributing to residents of Romania.

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III. MONETARY POLICY ISSUES¹

A. Overview

1. **The main objective of the National Bank of Romania (NBR)—to ensure the stability of the national currency, for the overall purpose of price stability—has proved to be elusive.** Except for a superficial and unsustainable improvement in inflation performance in the mid-1990s, inflation has remained above 40 percent since the beginning of the transition in 1990—with the peaks in 1991–92 and 1997 associated with measures to liberalize the price and exchange systems. This is in part because monetary policy often pursued inconsistent objectives and was carried out inconsistently during much of the last decade. Moreover, monetary policy has had to operate in a difficult economic environment. For instance, widespread financial indiscipline, in conjunction with the very fragile position of the corporate and banking sectors, has raised the economic costs of monetary tightening, while a vulnerable external position has prevented the effective use of the exchange rate as a nominal anchor. In addition, monetary policy has had to deal over time with the entrenchment of inflation expectations and the informal indexation of the economy.
2. **Romania’s experience suggests that a successful disinflation effort must rely not only on the consistent implementation of an appropriately tight monetary policy, but also on the hardening of budget constraints in the state sector.** The latter requires measures to contain wage growth and reducing arrears in the state sector, pending the restructuring of banks and enterprises, notably through privatization, to address the root cause of financial indiscipline. The authorities’ past efforts to contain wage growth in the state sector, reduce domestic arrears, and impose financial discipline through restructuring of state enterprises have frequently given way to political resistance and hence has achieved little in terms of disinflation.
3. **The monetary policy and exchange rate framework underwent a radical reform in early 1997, when monetary policy was relieved of its quasi-fiscal functions; the price, exchange, and trade systems were liberalized; and market-based policy instruments were introduced.** Since then, the NBR has adopted an exchange rate regime of managed floating, with the exchange rate, net foreign assets (NFA), reserve money, and net domestic assets (NDA) all serving at various times as intermediate targets. The NBR has mainly relied on sterilized intervention in the foreign exchange market in conducting its monetary policy. In 1997, the NBR simultaneously targeted the exchange rate and reserve money through large sterilized purchases of foreign exchange to address concerns on inflation and competitiveness in the face of large foreign exchange inflows that followed a sharp depreciation. In 1998, the NBR sought to contain the rate of leu depreciation to reduce inflation; and as foreign exchange inflows subsided and then reversed in the course of 1998, the NBR initially defended the exchange rate through a drawdown of reserves but was unable to sustain such a policy. In late 1998 and early 1999, the NBR tried to restore external competitiveness and limited downward pressures on reserves by accepting a large

¹ This chapter was prepared by Tao Wang.

acceleration of the leu depreciation. Since April 1999, when an acceptable level of external competitiveness was reached, the NBR has followed a policy of allowing the leu to depreciate broadly in line with the targeted rate of inflation, while seeking to adhere to the NDA and NFA targets that have been set under the Fund's Stand-by Arrangement.

4. **The sources of growth in monetary aggregates have varied in recent years, reflecting changes in the monetary policy stance as well as the external environment.** Broad money growth mainly came from that of the NFA in 1997 and 1999, and exclusively from NDA growth in 1998. In 1997, money supply grew much less than inflation, since it did not fully accommodate the price and exchange rate liberalization, and the large foreign exchange inflows were sterilized. Consequently, bank credit showed a sharp real contraction in 1997 from the already very low level. In 1998, the rapid expansion of domestic credit, against the background of the overvalued exchange rate and loss of central bank reserves, drove the growth of broad money. Since mid-1999, monetary policy has been tight as the NBR sterilized most of the foreign exchange inflows.

5. Although Romania still has a very low level of monetization, domestic credit started to recover in the last 1½ years, following the clean-up of the balance sheets of troubled banks. Problems of the insolvent state banks also led to high and volatile interest rates and to the expansion of the spread between lending and deposit rates, in particular in 1997 and 1999. Thus the closure of Bancorex and the clean-up of the banking sector in 1999 have contributed to the gradual decline of interest rates, as has the fiscal consolidation, which lowered the government's financing need.

6. Section B below outlines recent developments in Romania's monetary policy framework and policy stance; section C analyzes the monetary policy conduct and sources of reserve money growth; section D depicts the impact of banking sector fragility on monetary policy; and section E describes the developments in broad money and credit.

B. Monetary Policy Framework and Policy Stance

The period 1990–96

7. **Before 1997, Romania's monetary and exchange rate policies were predominantly quasi-fiscal in nature.** Inflation and balance of payments (external reserves) targets consistently gave way to demands for directed credit for the agricultural sector and state-owned enterprises, and for an overvalued currency to keep energy prices low – to subsidize the energy-intensive state sector (see Chapter II, Box II.1). As a result, monetary policy was highly accommodating, reserves were depleted while defending an overvalued currency and replenished with borrowing from the international capital market. By late 1996, the disequilibrium in the external sector created by the over-valued exchange rate and excess domestic demand became unsustainable.

The period 1997–98

8. **In early 1997, the newly elected reformist coalition government, faced with rising inflation, mounting downward pressure on exchange rate, growing fiscal and**

current account deficits, and a real possibility of a financial crisis, embarked on a different policy path. The quasi-fiscal functions of monetary and exchange rate policy were shifted to the state budget, the exchange rate regime was liberalized following a sharp downward correction, and directed (subsidized) credit by the central bank was terminated. This was accompanied by other reforms, including price and trade liberalization, and the initiation of structural reform in the enterprise sector.

9. **Confronted with large foreign exchange inflows during most of 1997, the NBR simultaneously targeted the nominal exchange rate and the reserve money to prevent a nominal appreciation and control inflation.** The downward correction and liberalization of the exchange rate in early 1997 not only served to foster exports (at least initially), but also encouraged large amounts of capital inflows as well as private transfers. In order to prevent the erosion of the competitiveness gains through a nominal appreciation, the NBR engaged in large purchases of foreign exchange. It also aimed, but with limited success, to contain the growth in reserve money and inflationary pressures through sterilization operations.

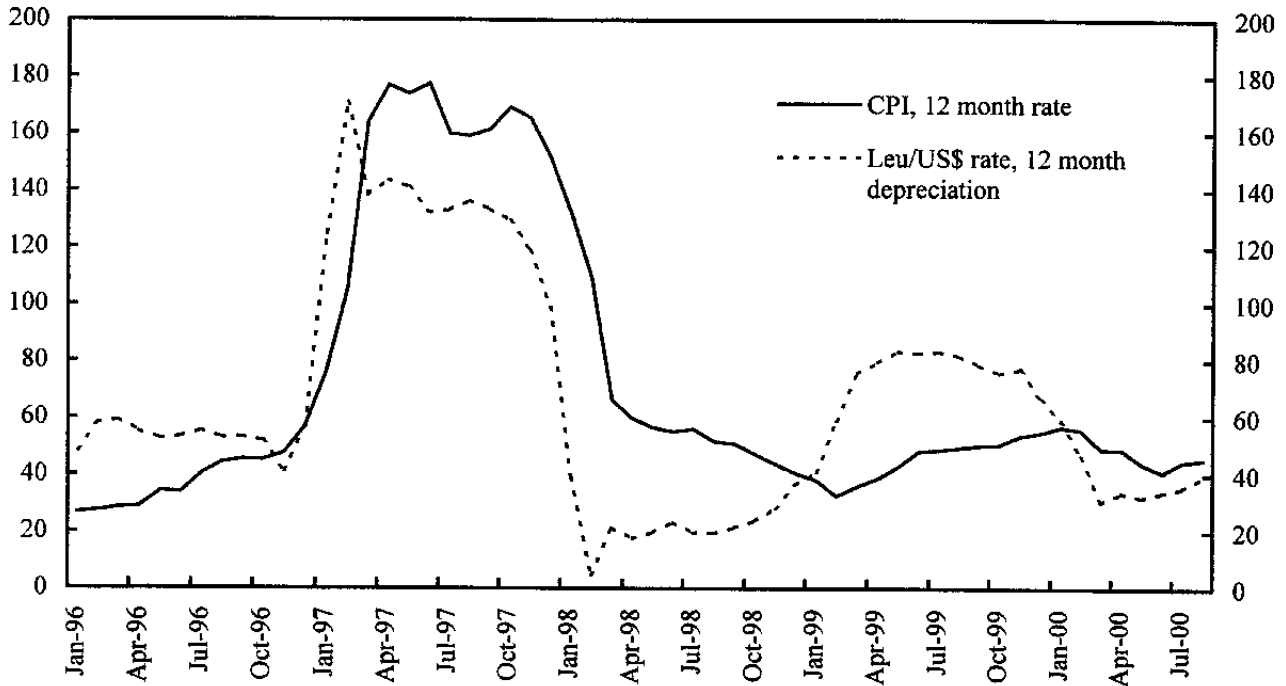
10. **However, starting in late 1997, external sector developments started to turn unfavorable, owing to rapid wage growth in conjunction with a low rate of leu depreciation.** Rapid wage growth eroded the competitiveness correction by late 1997. The NBR's decision to loosen monetary policy (along with fiscal policy) while continuing to target a nominal exchange rate served to reinforce the unfavorable trend. Although no single intermediate target for monetary policy unambiguously held sway, the exchange rate provided the main guide for reserve money management. The leu generally depreciated by 1–2 percent, well below the rate of inflation (Figures III.1–III.2), resulting in real appreciation of the leu, and foreign exchange inflows ran dry. The loss of external competitiveness contributed to the worsening of the current account deficit, and finally rendered the external imbalance unsustainable. The stance and conduct of monetary policy in 1998 were complicated by the need to inject liquidity to two large ailing state banks and by the low credibility of the NBR. In 1998 as a whole, monetary policy was loose—the NBR relaxed the monetary policy stance by using its foreign reserves to defend the currency. Finally, the Russian crisis in the fall of 1998 triggered a decline of confidence in Romania, and the NBR no longer could defend the currency after losing large amounts of reserves. The currency realignment in late 1998 and early 1999 reflected the need to return the leu to its equilibrium real level after inappropriate macroeconomic policies had misaligned it, and the fact that Romania economy had become increasingly vulnerable to changes in market sentiment.

The period 1999 to the present

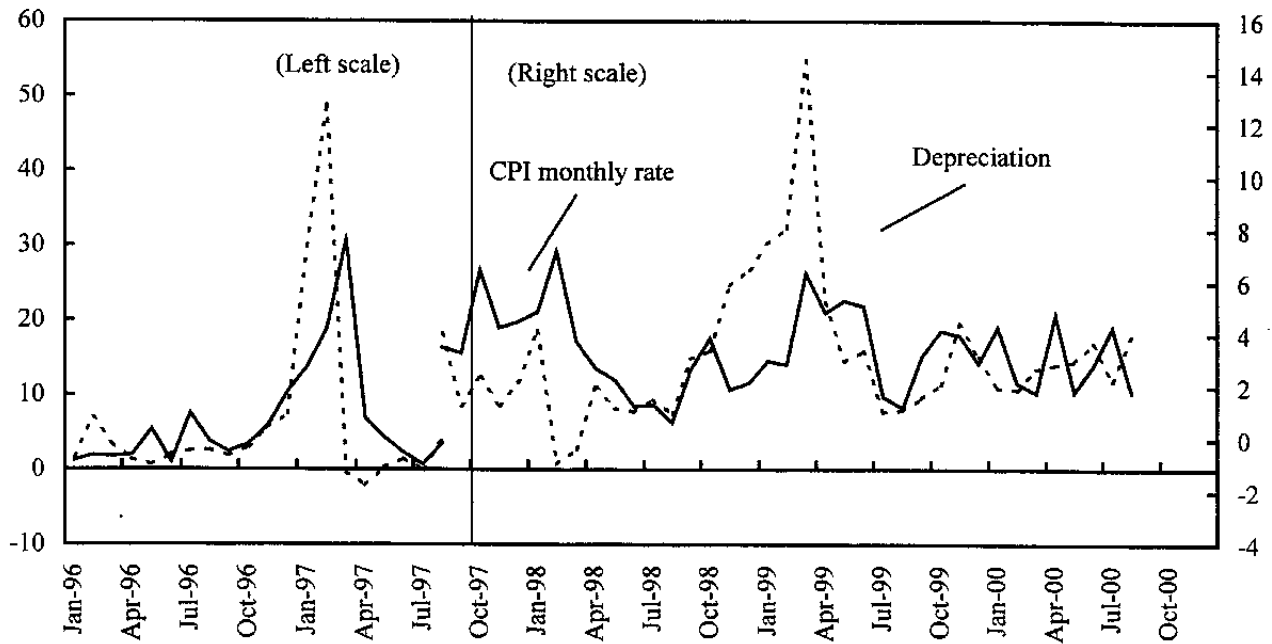
11. **The current monetary policy framework seeks to strike a balance between two potentially conflicting objectives of (a) reducing inflation through a degree of exchange rate stability, and (b) safeguarding the external position.** This monetary policy framework was instituted in early 1999 in the context of the SBA program, under the circumstances of a weak and highly uncertain external position and a history of volatile inflation and exchange rate movements. Specifically, the NBR's managed float exchange rate regime operates in

Figure III.1. Romania: Exchange Rate and Inflation Developments, 1996-2000

Developments of 12-month inflation and depreciation

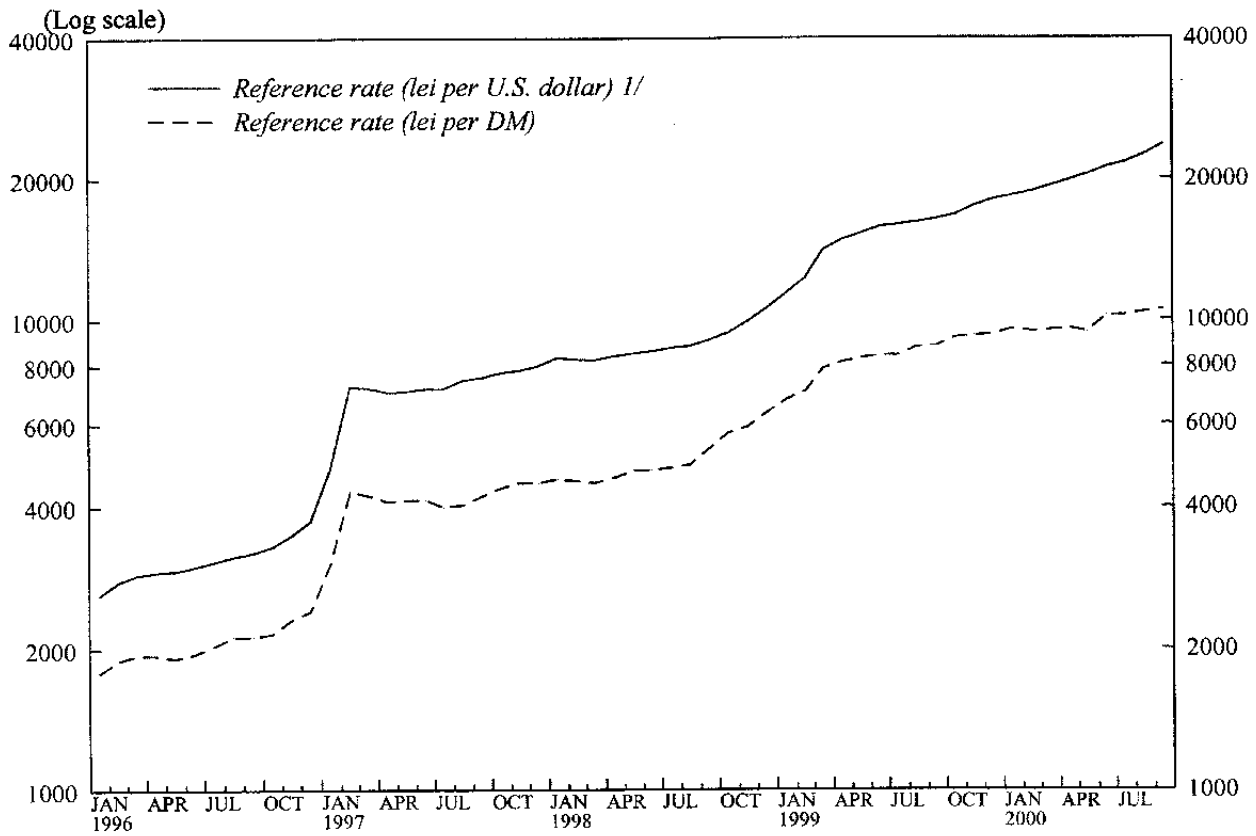


Developments of Monthly Inflation and Depreciation

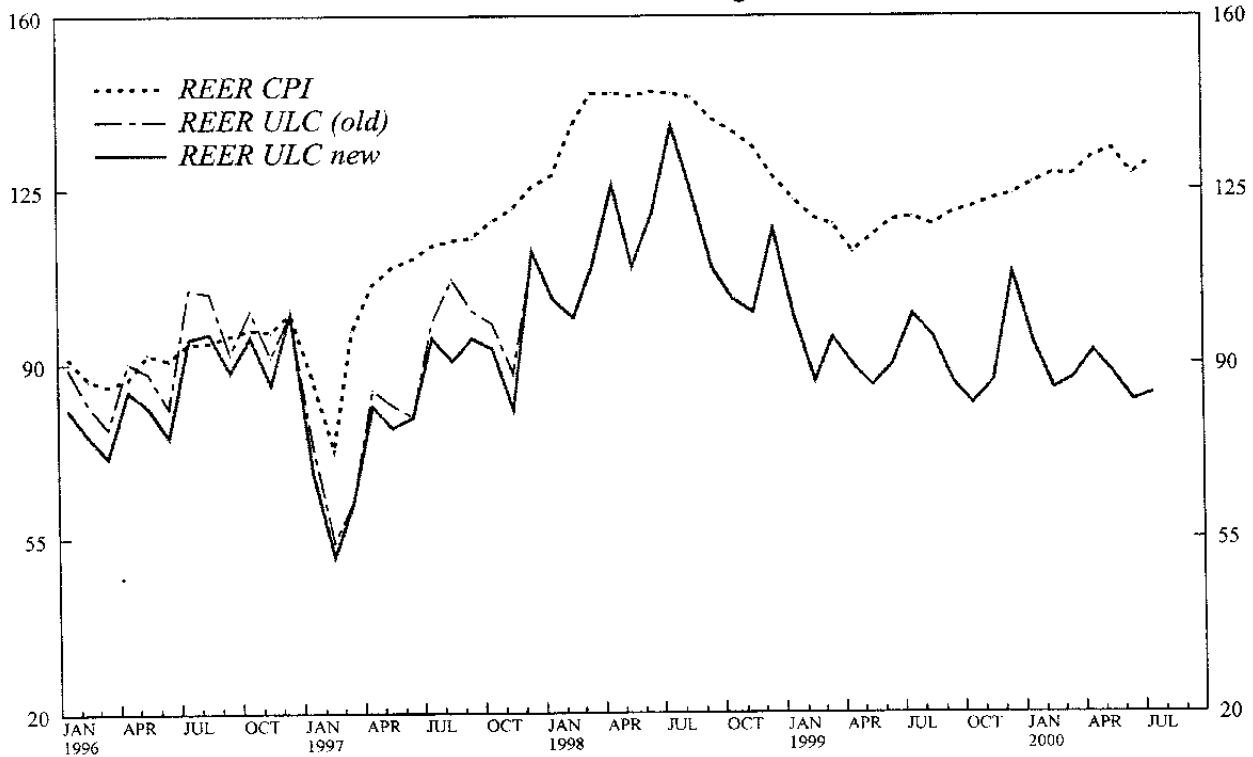


Sources: Romanian authorities; and Fund staff estimates.

Figure III.2. Romania: Nominal and Real Exchange Rate Developments, 1996-2000



Real Effective Exchange Rate



Source: National Bank of Romania.

1/ The official reference rate is published by the National Bank of Romania, computed as a weighted average based on the daily reports of foreign exchange operators.

practice as an unannounced crawling peg that crawls at a rate broadly in line with targeted inflation. There is thus no explicit NBR commitment to a specific exchange rate or inflation path; the exchange rate target is subject to revision in the event of external shocks and unexpected developments, with a view to safeguarding the external position. In light of large and often uncertain foreign exchange flows (including official financing) and significant dollarization (which raises the level of capital mobility), as well as the low policy credibility, a nominal exchange rate anchor may not provide sufficient flexibility to reconcile domestic and external objectives. On the other hand, avoiding excessive exchange rate volatility would serve to ensure smooth external trade transactions, and help to stabilize inflation expectations, given that the exchange rate is the key element of the transmission mechanism in Romania.

12. Turning to the operational aspects of the monetary framework, in principle the NBR has one policy instrument—the NDA—but two intermediate targets: the NFA and the exchange rate. In practice, the NBR is guided in its day-to-day operations by the exchange rate target, as long as the NFA remains above its targeted path. Broadly in line with this policy, the NBR has been able to achieve the exchange rate target over the past one year, in the context of a NFA over-performance, thereby helping to stabilize exchange rate and price expectations.

- Were the NFA target to be put at risk, however, the priority would effectively be the achievement of a minimum level of NFA. Thus, in the case of a negative shock and downward pressures on foreign reserves, the exchange rate target might be sacrificed after a point.
- By contrast, in the case of a positive shock, the NBR would face—and indeed has repeatedly faced over the past year—a choice between adding to reserves or letting the exchange rate appreciate. In light of the weak external position, the authorities would normally opt for a buildup in reserves in this case and, moreover, to sterilize the foreign exchange inflows associated with the larger-than-programmed NFA. However, the NBR would reassess whether the underlying money demand had picked up if the external over-performance persists.

13. The current monetary policy framework has proven to be instrumental in the buildup of reserves and the maintaining of external competitiveness and exchange rate stability, but it has had limited success in bringing down inflation. Amid large foreign exchange inflows, monetary policy remained tight in 1999 and early 2000, although it was loosened temporarily in mid-2000 as the NBR only partially sterilized the unexpected high inflows and its liquidity injection that bailed out depositors of a failed bank.² In the

² The loosening of monetary policy was influenced in part by an assessment that the higher-than-programmed increase in reserve money should be accommodated, as it reflected increased demand for currency, and in part by political pressure to lower the domestic financing costs of the budget deficit. The authorities started to tighten monetary policy in September 2000.

meantime, the NBR's net foreign assets, including gold, rose from US\$1.3 billion at the end of 1998 to US\$1.8 billion at the end of 1999 and US\$2.1 billion in June 2000. After the downward correction in early 1999, the exchange rate has depreciated in line with inflation and largely maintained its competitiveness. However, inflation rose to 55 percent at the end of 1999 compared with 40 percent in 1998, and has since decelerated only modestly.

14. **While the main objective of monetary policy shifted, the circumstances surrounding the operation of monetary policy changed markedly as well.** The favorable external conditions in 1996 and 1997, reflected in large capital inflows and relatively easy access to international capital markets, gave way to adverse sentiment following first the Asian crisis, and then the Russian crisis in August 1998, resulting in the denial of Romania's access to international capital markets in 1999. The strong policy effort in the areas of budget and external competitiveness in 1999 helped to avert a financial crisis and restore some confidence in the economy by mid-2000. In addition, the privatization and liquidation of large state-owned banks have drastically reduced the need for the NBR to constantly provide liquidity support to the ailing state banks which compromised its monetary policy conduct.

C. The Conduct of Monetary Policy and Sources of Reserve Money Growth

15. **Reserve money management in the last three and a half years mainly consists of large sterilized intervention in the foreign exchange market by the National Bank of Romania—sterilizing the accumulation of reserves from the inflows in 1997 and since mid-1999, and sterilizing the massive reserve loss and foreign exchange outflows in 1998.** leu reserve money³ soared by 87 percent in 1997 (although end-December inflation was much higher, at 150 percent), following the exchange rate and price liberalization, before decelerating in 1998 and 1999, to about 30 percent⁴ (Table III.1). In 1997, reserve money developments were driven exclusively by the large inflow of foreign exchange following the sharp depreciation and the liberalization of the exchange rate regime. The NBR sterilized most of the US\$1.5 billion increase in its net foreign assets, which in turn tightened credit conditions. As a result, NFA growth contributed more than 100 percent to the growth of reserve money, while NDA declined slightly in 1997. In sharp contrast to 1997, reserve money developments in 1998 were led by a decline in NFA. In the course of defending the stability of the nominal exchange rate, NFA dropped by US\$800 million in 1998 (Figure III.3), or some 46 percent from the level at the end of 1997 (excluding valuation effects). As the NBR sterilized the foreign exchange outflows, credit conditions were loosened, and domestic credit growth turned from large and negative to large and positive. Under the SBA program of 1999, building NFA became the paramount objective, and thus the forces underlying reserve money developments again reversed their courses. Following the large depreciation in early 1999, the exchange rate stabilized, while the real depreciation

³ In Romania, the analysis typically focuses on the leu component of reserve money, for reasons explained in Section E.

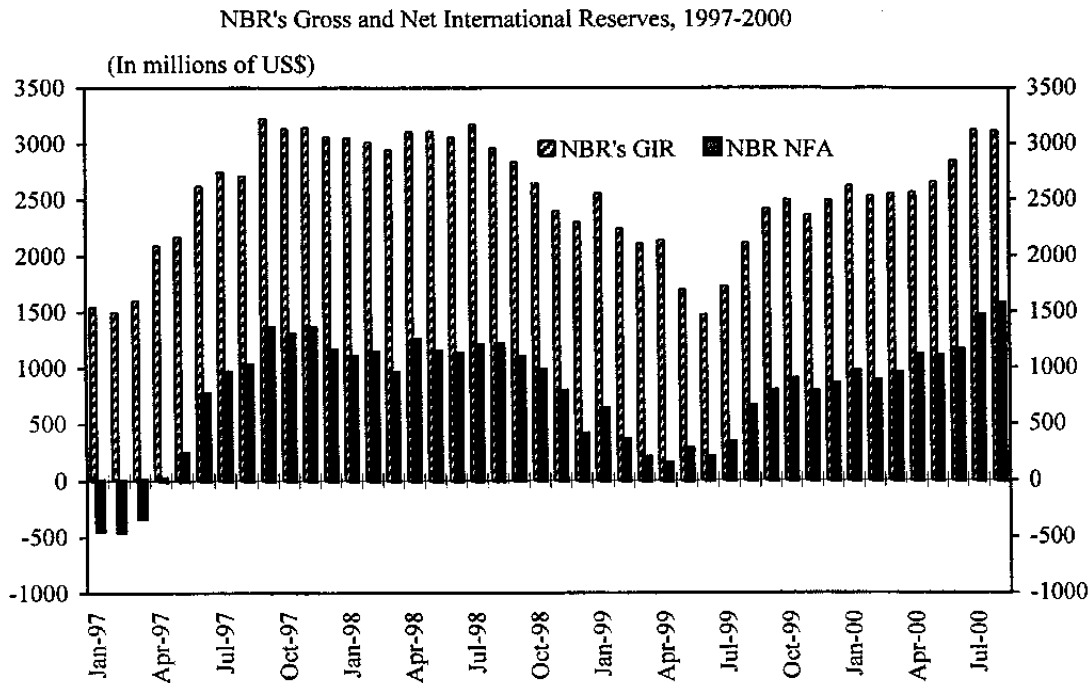
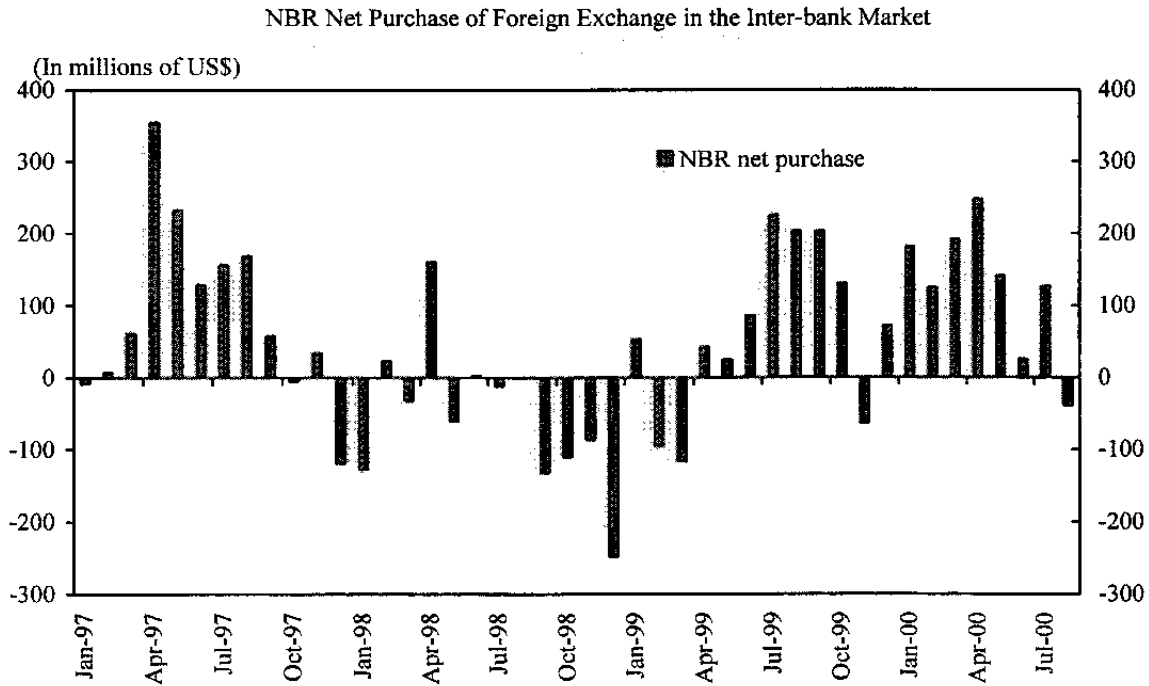
⁴ The rate of change is calculated at an unchanged required reserve ratio, using the beginning of the period required reserves ratio as a reference point, and assuming full compliance with reserve requirements.

significantly improved the current account and increased the inflows of foreign exchange. The accumulation of foreign reserves contributed to about 70 percent of reserve money growth, while domestic credit growth decelerated. This trend has continued so far in 2000.

Table III.1. Contribution to Reserve Money Growth, 1997-99 (Percent change in relation to reserve money at the beginning of the year)					
	1997	1998	1999		2000 H1
			Actual	Program	
Reserve money excluding changes in reserve requirements & assuming full compliance	87.5	29.4	32.4	30.7	14.3
NFA					
Excluding valuation effects	89.7	(45.5)	22.6	17.4	14.2
NDA	(2.1)	74.9	9.8	13.3	...
Domestic Credit	(99.3)	82.7	30.7	8.6	3.0
Banks	(147.3)	37.9	(18.6)	24.0	(0.3)
Government	48.0	44.8	49.3	(15.4)	3.3
Changes in required reserves	(12.4)	(19.6)	(51.4)	-	-
Other items, net	92.2	12.1	25.7	5.7	9.9
<i>Of which:</i> Valuation change	62.8	8.5	30.8	14.8	14.2
Shortfall of required reserves		(0.3)	4.7	(1.0)	(12.9)
Sources: National Bank of Romania and staff estimates.					

16. **The key instruments of monetary policy conduct have evolved in the last three years (Box III.1).** The elimination of directed credit by NBR, the subsequent need to inject liquidity into the ailing banks, and the large foreign exchange inflows transformed the NBR from a net creditor in the liquidity market to a net debtor vis-à-vis the commercial banks. Sterilization operations, the driving force behind the evolution of NDA, were conducted mainly through NBR's deposit-taking operations, and the increases in minimum reserve requirements on banks' deposits. Deposit-taking operations by the NBR were introduced in June 1997, initially to absorb the large amount of liquidity resulting from the NBR's foreign exchange purchases, and then to sterilize the liquidity support to two ailing state-owned banks. The financial market conditions—the existence of large distress borrowing, the

Figure III.3. Romania: Foreign Reserve, 1997-2000



Sources: Romanian authorities; and Fund staff estimates.

Box III.1. Monetary Policy Instruments and Their Evolution

Open market-type Operations:

Deposit-taking operations: Deposit-taking operations began in June 1997 to absorb large amounts of excess liquidity, mostly resulting from the NBR's purchases of foreign exchange. Later in 1997, liquidity support to the two ailing state-owned banks (BX and BA) required subsequent sterilization from the system, which led to the sharp rise of deposit-taking operations. In December 1997, the stock of deposit-taking operations peaked at 5.8 trillion lei, or 50 percent of reserve money. Apart from the heavy-handed adjustment of reserve requirements, deposit-taking operations have since been the most heavily utilized instrument to drain liquidity from the market. These operations are held frequently and maturities are usually for one week or two weeks, but they vary between one day and one month depending on liquidity conditions. Each day a set of bilateral transactions (and now, increasingly, auctions) are conducted, and terms and conditions can be different for different operations. The interest rates of the deposits with the NBR were often affected by the distress borrowing of troubled banks and competition from large financing needs of the government (T-bills) in the past – the high cost often drove the NBR to resort to changes in reserve requirements. The NBR has published a set of regulations governing money market operations, and started to rely more on the auction format in deposit-taking operations beginning in the third quarter of 2000.

Government securities operations: The two other instruments available to NBR to carry out open-market-like operations are outright purchases and sales of Treasury bills (T-bills), and repurchase and reverse repurchase agreements. To date there have been a few outright sales of T-bills (average daily amount of 120 billion lei in the last 12 months). The purchase of T-bills from two ailing banks were related to the need to inject liquidity into these banks and cannot be counted as true open market operations. The NBR conducted experimental repos and reverse repos with a few banks in 1998-99 and then formalized the regulations on such operations in March 2000. As the terms and maturities of T-bills have increased, and interest rates are more market related, the NBR began to use reverse repos as an important means of monetary policy conduct starting in August 2000. Nonetheless, the high inflation and highly uncertain interest rate environment remain an obstacle to further development in this area.

Reserve Requirement:

The system of reserve requirements underwent major reforms in 1998 and early 1999. Since March 1999, reserve requirements have been calculated for the average of the previous half month, and the coverage is in line with the international norm. In August 1998, reserve requirements on domestic currency deposit and foreign currency deposits were unified at 15 percent. The requirements diverged in November 1999, when the reserve ratio on lei deposits was raised to 25 percent and then in December to 30 percent, while the reserve ratio on foreign currency deposits remained at 20 percent. On lei reserve requirements, the first 15 percent is remunerated at the sight deposit rate, and the second 15 percent is remunerated at a rate determined by various market indicators, including the interbank market rate. The NBR's decision to raise reserve ratios to the current high level stemmed partly from the large sterilization need in light of large foreign exchange inflows in 1999, and liquidity injections to ailing state banks. The financial distortion created by the ailing banks, including nonobservance of their reserve requirements, also contributed to the need to tighten reserve requirements across the board.

NBR Credit Facilities:

Auction credit: The NBR introduced auction credit in 1993 as a semi-market-based means of monetary policy to replace soft credit dictated by government decisions. However, as the rules of the auction were not sound and very low bids were submitted in an environment of excess liquidity, auction credit was initially used exclusively by a few major state-owned banks to borrow at below-market interest rates. The auctions were reformed in 1995, whereby credit is granted for a maximum of 15 calendar days with collateral acceptable to the NBR, and interest rates are set competitively by the auctions. Credit auction loans reached a high of 1.5 trillion lei in December 1996 and dropped to zero after April 1997. From June 1997, the NBR has become a net borrower instead of lender vis-à-vis the banking system and has not used credit auctions.

The discount window (or structured credit facility) was once the main facility through which the NBR provided directed credit at heavily subsidized rates (about 70–90 percent of NBR's total refinancing credits were issued as directed credit during 1993–96). Structural credit was granted on the basis of laws passed by the parliament or government decisions to support activities in certain sectors (such as the agriculture sector). In 1997, structured credit was terminated, and discount credit volume declined subsequently, as maturing credit was not renewed. It has not been used since 1997, especially as the liquidity conditions have changed (with the NBR being a net borrower).

The Lombard facility is an overnight lending facility for banks to bridge temporary liquidity needs. This facility has not been used since December 1997. The NBR law of 1998 prohibits the NBR from providing overdraft credit, although the Lombard facility existed. The rate is set to be money market rate plus penalty, or the highest short-term money market rate. The regulation issued in 2000 provides a *marginal lending facility*, which will take the place of the Lombard facility, to allow overnight collateralized lending at the highest market interest rate to facilitate settlement.

The special credit facility is used for banks in serious distress and credit is granted for a maximum of 30 days, requires a submission of a financial recovery plan, and is collateralized with T-bills. In practice, there have been exceptions to the collateral requirement as well as the financial recovery plan. The facility was used to extend liquidity support to BX (1999) and BA (1999–2000).

dominance of certain banks, and not the least, the large sterilization requirement—rendered deposit-taking operations too costly and insufficient to mop up all the liquidity desired, and the NBR repeatedly turned to a more effective but heavy-handed instrument—the increase of minimum reserve requirements. Minimum reserve requirements for leu deposits were raised steadily from 7.5 percent in early 1997 to 30 percent in late 1999 (Table III.2).

Period in Effect	Leu Deposits	Foreign Currency Deposits
January 1997 to July 1997	7.5	20-30*
July 1997 to February 1998	10	20-30*
February 1998 to August 1998	12.5	20-30*
August 1998 to July 1999	15	15
July 1999 to October 1999	20	20
November 1999	25	20
December 1999 to present	30	20

Source: National Bank of Romania

*Depending on the foreign currency liquidity level.

17. **Among open market-like operations, apart from deposit-taking, the NBR could—but rarely did—resort to the sale and purchase of government securities to conduct its monetary policy.** While the NBR has sold some of its holdings of T-bills, its purchase of non-marketable T-bills from state-owned banks derived mainly from the need to pump in liquidity to support the ailing banks, and cannot be categorized as open market operations. Progress has been made in the development of open market operations through the development of more marketable government securities, a set of regulations clarifying the money market operations, the shift toward the auction format in conducting deposit-taking operations by the NBR, and the introduction of repurchase (repo) and reverse repurchase agreements of government securities. As of August 2000, most of the deposit-taking operations were conducted in auction format, and the NBR also started to rely more on reverse repo transactions to mop up liquidity.

D. Banking Sector Fragility and Monetary Policy

18. **The conduct of monetary policy in Romania has been complicated in recent years by the fragile condition of the banking system.** This section is devoted to the impact of banking sector problems, especially the two large insolvent state-owned banks—Bancorex and Banca Agricola - on the conduct of monetary policy.

19. **The insolvent state banks were the main agents for quasi-fiscal support to the state enterprises and the agricultural sector before 1997.** Bancorex (BX), the former bank of foreign trade and the largest bank in Romania, had mainly dealt with foreign currency lending and deposit taking, trade finance, foreign exchange, and international settlements.

BX financed a significant portion of Romania's energy import requirements, as well as imports of capital goods under the previously highly subsidized exchange rate. In addition, BX was used as a major vehicle for providing quasi-fiscal support to the energy sector and energy-intensive industry. When the exchange rate regime was liberalized and subsidized credit was terminated by the NBR in 1997, BX's already high level of nonperforming loans ballooned and the bank ran into serious liquidity and solvency problems. Banca Agricola (BA), the agricultural bank, had traditionally relied on extending subsidized credit to the agricultural sector. In early 1997, when such credits were eliminated, BA also encountered serious liquidity and solvency problems.

20. **Large distress borrowing by the two insolvent state banks and the subsequent bailout by the government and the NBR compromised the monetary policy stance.** As shown in the attached charts (Figure III.4), BX and BA pushed up interest rates via large distress borrowing at various times in the last few years. Their behavior forced the central bank to raise interest rates by a greater margin to absorb the liquidity in the system.⁵ The subsequent bailout of BX and BA by the government and the liquidity injection by the NBR required huge consequent sterilization.⁶ As a result, the conduct of monetary policy was significantly undermined.

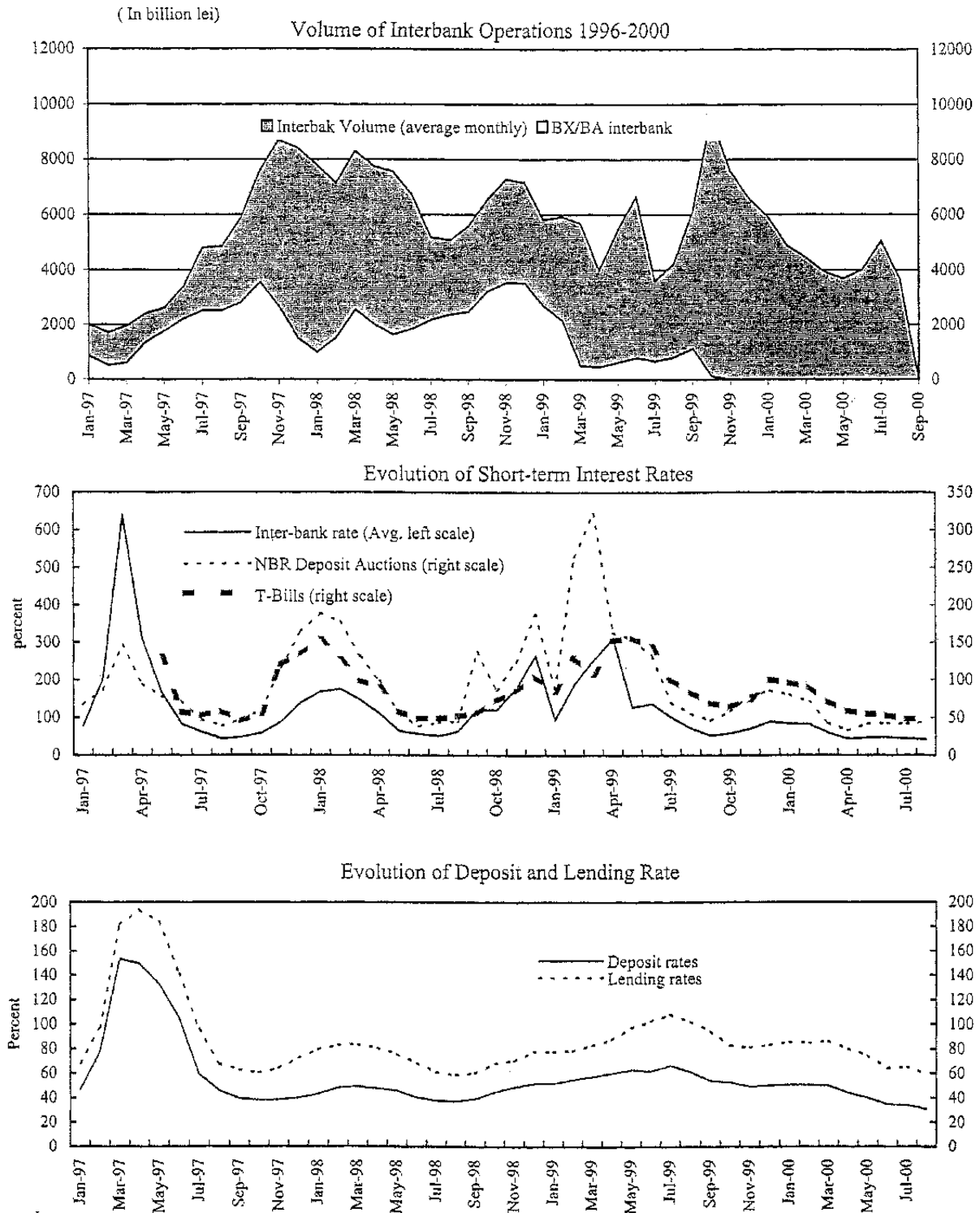
21. **The liquidity support to the two banks made NBR's sterilization operations very expensive and caused distortion in the financial market.** First, the large sterilization requirements stemming from NBR's massive liquidity support made its deposit-taking operations very expensive. As interest rates skyrocketed, the NBR resorted to increasing minimum reserve requirements on all bank deposits. Second, the two ailing banks' nonobservance of the minimum reserve requirements, along with other prudential regulations, clouded the true picture of the monetary situation and caused distortion in the banking system by shifting the burden to other banks.

22. **The aforementioned distortion caused by the two banks altered the transmission of monetary policy.** The level of interest rates associated with a given quantity of reserve money was often skewed upward by the presence of BX and BA—through, for example, large distress borrowing—while the overall volatility and uncertainty of interest rates increased. This in turn hindered financial market development—for example, the development of the secondary market for government securities—and discouraged the

⁵ When the two banks offered excessively high interest rates to attract deposits and avoid bank runs in 1997, they added to the upward pressure on interest rates arising from tight liquidity conditions owing to the NBR's sterilization of foreign exchange inflows.

⁶ In late 1997, the government bailed out the two banks with US\$1 billion in government bonds. The NBR immediately purchased a significant amount of those securities from the two banks and injected cash liquidity into the banking system. In 1999, as BX collapsed, the NBR stepped in again to extend about 10 trillion lei—or about 50 percent of reserve money—in special credit to the bank.

Figure III.4. Romania: The Impact of Bancorex and Banca Agricola, 1997-2000



Sources: Romanian authorities; and Fund staff estimates.

financing of real activities, as such activities are less sensitive to interest rate (see the next section on the low level of financial intermediation).

E. Recent Developments in Broad Money and Credit

Broad money developments

23. **Romania's monetary programming is based on leu broad money (henceforth M2),⁷ but both leu broad money and broad money including foreign currency deposits (henceforth M2X) are monitored.** Table III.3 shows developments in broad money and sources of growth in the last three years. Even though M2 grew by 91 percent in 1997, this was still far below that of end-year inflation of 151 percent, resulting in a sharp real contraction that year. In 1998, M2 grew by 40 percent in 1998, in line with end-year inflation, though the credit policy stance in 1998 was loose, as money demand declined in the latter part of the year. Reflecting a tightening of monetary stance since early 1999, M2 grew by 34 percent in 1999. The developments in M2X in the meantime mainly reflected developments in M2 and exchange rate movements, as the dollar amount of foreign currency deposits has changed little.

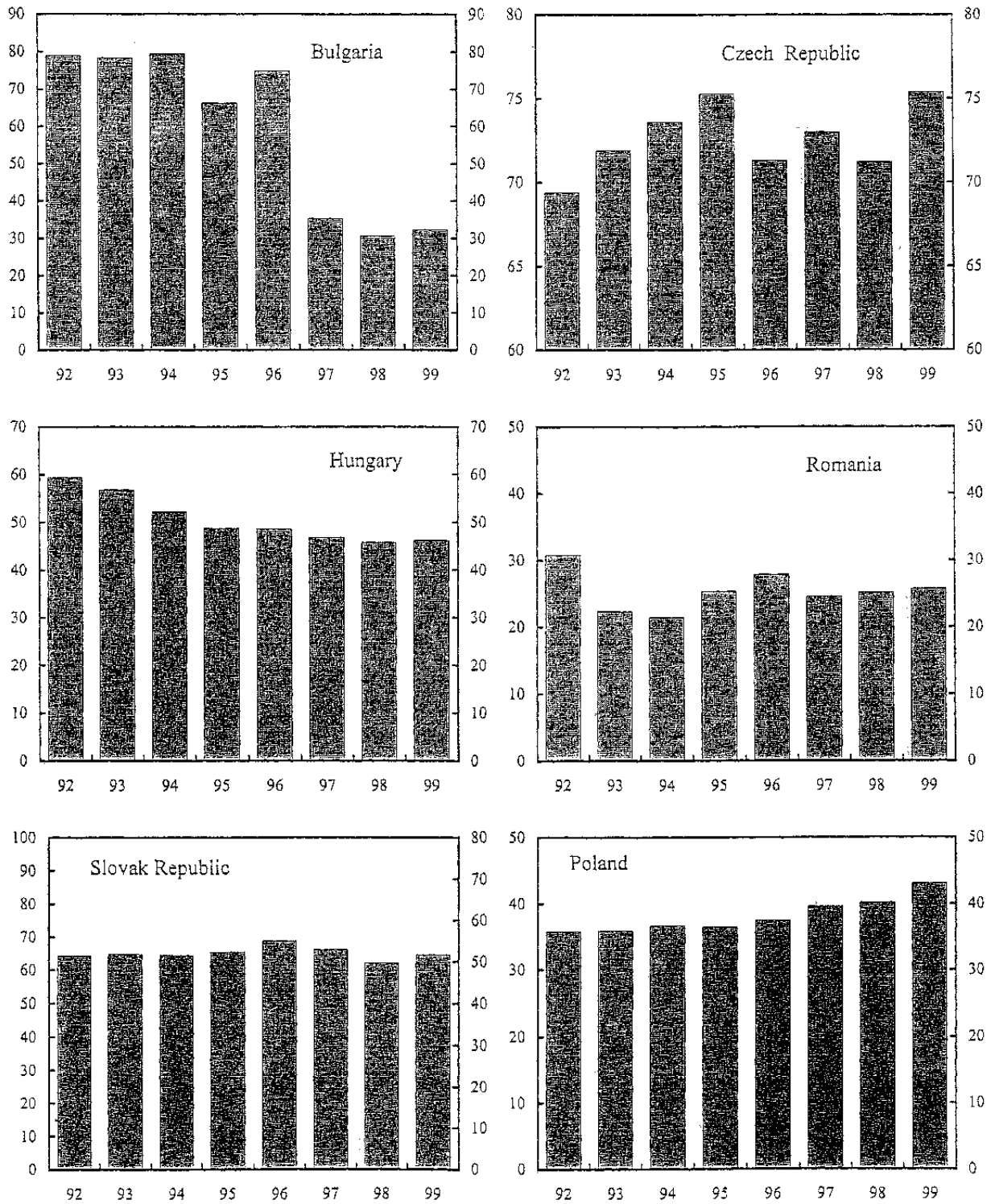
The low level of monetization

24. **The level of financial intermediation is extremely low in Romania, and has been so for many years.** Measured by the share of broad money (including FCDs) in GDP, Romania ranks the lowest among countries in the region, falling behind Bulgaria, the Slovak Republic, Poland, the Czech Republic, and Hungary (Figure III.5). The monetization levels of these countries, with the exception of Bulgaria, were between 40 percent and 70 percent of GDP at the end of 1999. In contrast, Romania's M2X to GDP was a mere 26 percent, lower than the ratio of post-crisis Bulgaria, which saw its broad money-to-GDP ratio halved from some 70 percent of GDP following the banking crisis in 1996.

25. **Moreover, unlike most transition countries in Eastern Europe, the broad money-to-GDP ratio in Romania shrank by half at the beginning of the transition process between 1991 and 1993.** The main reason behind Romania's rapid demonetization is that rampant inflation in the first three years of the 1990s resulted in highly negative real interest rates and hence heavy taxation on holdings of domestic currency; meanwhile, controls on

⁷ Even though the share of FCDs in M2X is significant, hovering around 30 percent in recent years, there is no strong evidence of foreign currency as a means of payment or unit of account in a significant way. FCDs are mostly a form of assets that the population uses in a high inflation and volatile exchange rate environment to substitute for domestic deposits.

Figure III.5. Romania: International Comparison of Monetization, 1992-1999
(Broad money as a percent of GDP)



Source: EBRD Transition Report 2000.

foreign exchange were not liberalized, which led to the collapse of demand for money.⁸ (Table III.4). Since then, progress in re-monetization and financial intermediation in Romania has been slow, owing to the persistence of high inflation and, for the most part, negative interest rates on leu deposits, and concerns about the health of the banking system.

26. As shown in Figures III.6 and III.7, commercial banks' average deposit rate have fluctuated widely and have often been highly negative in real terms. Real deposit rate was consistently positive in only two periods, 1995–96, and much of 1999, and both periods witnessed a recovery of broad money-to-GDP ratio.

27. **Most recently, the development of capital markets in Romania may have offered people some alternatives to bank savings—the securities market, investment funds, and treasury bonds.** However, the market capitalization of these alternatives remains low, and hence it has not been among the main reasons so far for the low level of monetization in Romania. Stock market capitalization reached about 2 percent of GDP in the last two years, while bonds sold to households accounted for another 1½ percent of GDP. Investment funds are estimated to account for less than 1 percent of GDP (most of which was the failed FNI), as do deposits at credit cooperatives—although data from these latter two sources are imprecise and should be viewed with caution.

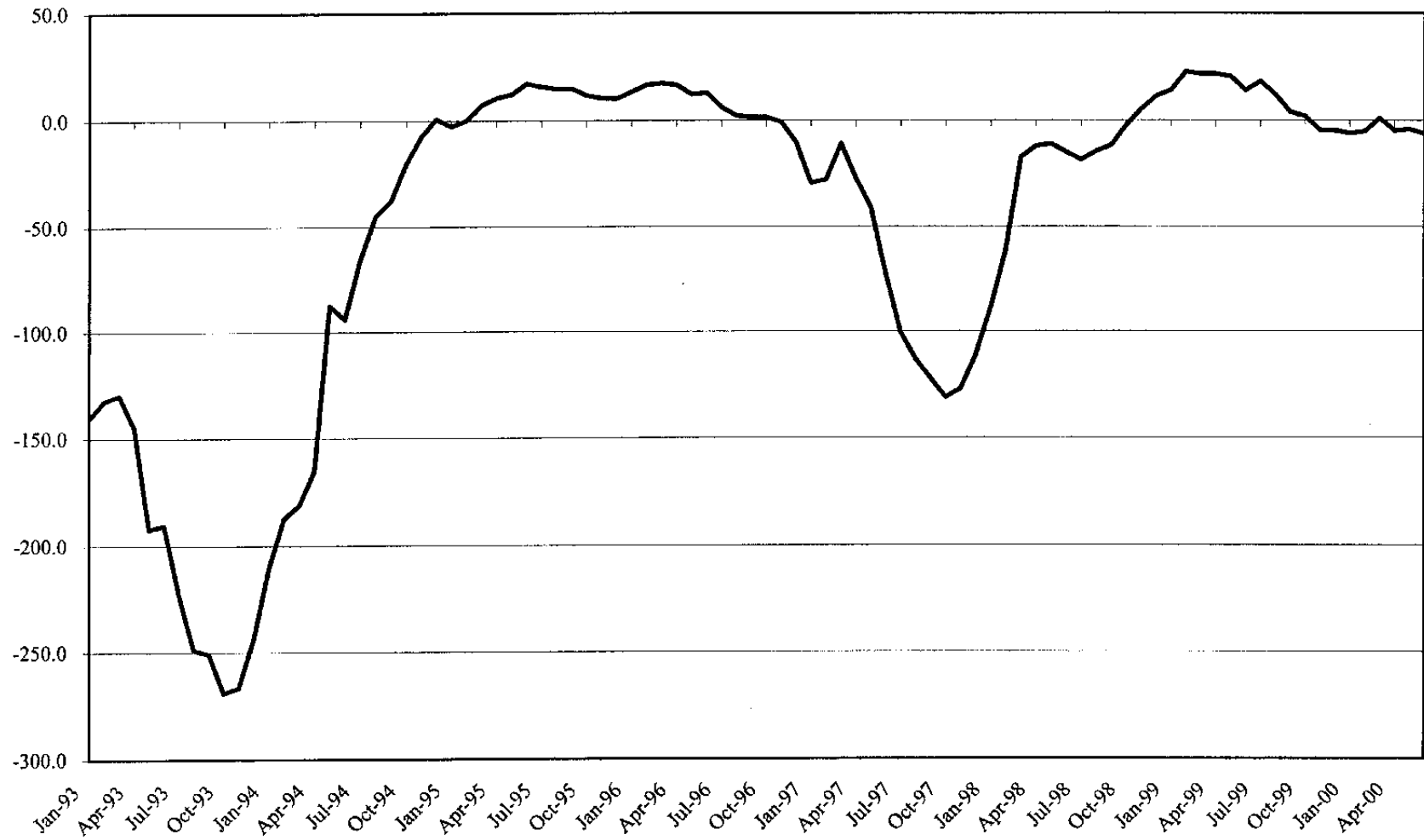
Developments in bank credit

28. **Associated with the low monetization level, bank credit to the nongovernment sector, especially the private sector, is very low (Figure III.8).** Compared with other countries in the region, Romania again ranked at the bottom, along with Bulgaria. Unlike Bulgaria, whose credit level declined sharply after the financial crisis in 1996, Romania's credit to the private sector has always been low. More recently, credit to the nongovernment sector declined sharply in 1997, along with a sharp contraction of domestic credit owing to the tightening of the monetary stance, and the erosion of credit by inflation. Credit to the private sector has since recovered, although still at a very low level, from some 8.5 percent of GDP in 1997 to some 12–13 percent in 1999.⁹ Credit to the state-owned enterprises (SOEs) has shrunk over time, from some 12 percent of GDP at end-1996 to about 3–4 percent of GDP at end-1999. The shift of banking credit from SOEs to the private sector partly reflected the accelerated enterprise privatization and reform, and partly reflected the termination of subsidized directed credit to the SOEs and enhanced banking supervision.

⁸ This did not happen in some other high inflation economies such as Poland, because its population was able to hold dollar deposits freely.

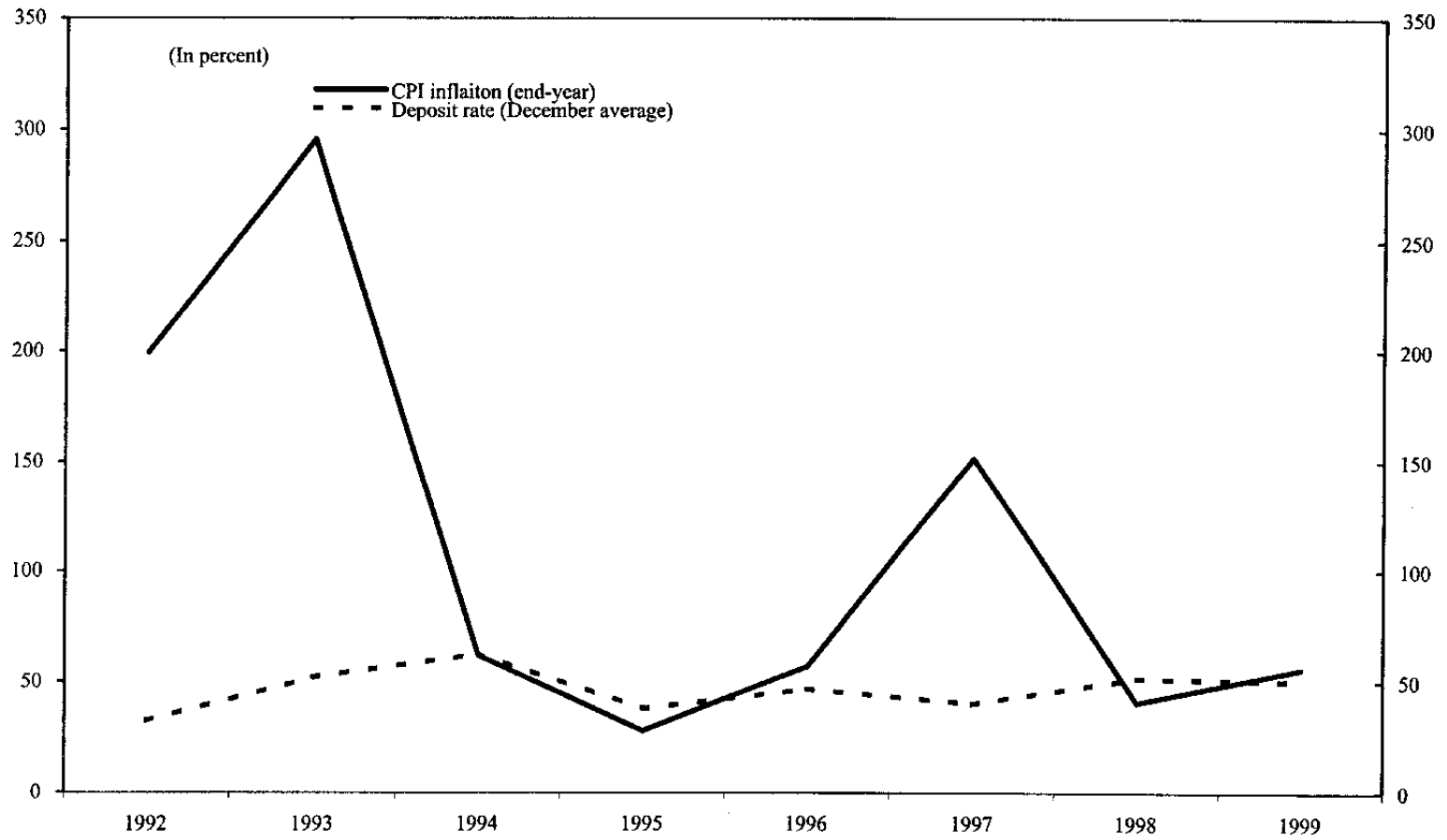
⁹ In mid-1999, before BX was merged with BCR, its bad assets were transferred to the newly founded asset recovery agency (AVAB), removing the bad loans from the banking sector. While the transfer of these assets did not affect underlying credit to the economy, it did change the statistics on banking system credit. As a result of the transfer, credit in the amount of 4½ percent of GDP was removed from the banking system—of which about 3 percent of GDP represented nonperforming foreign currency loans.

Figure III.6. Romania: Real Monthly Deposit Rate, 1993-2000



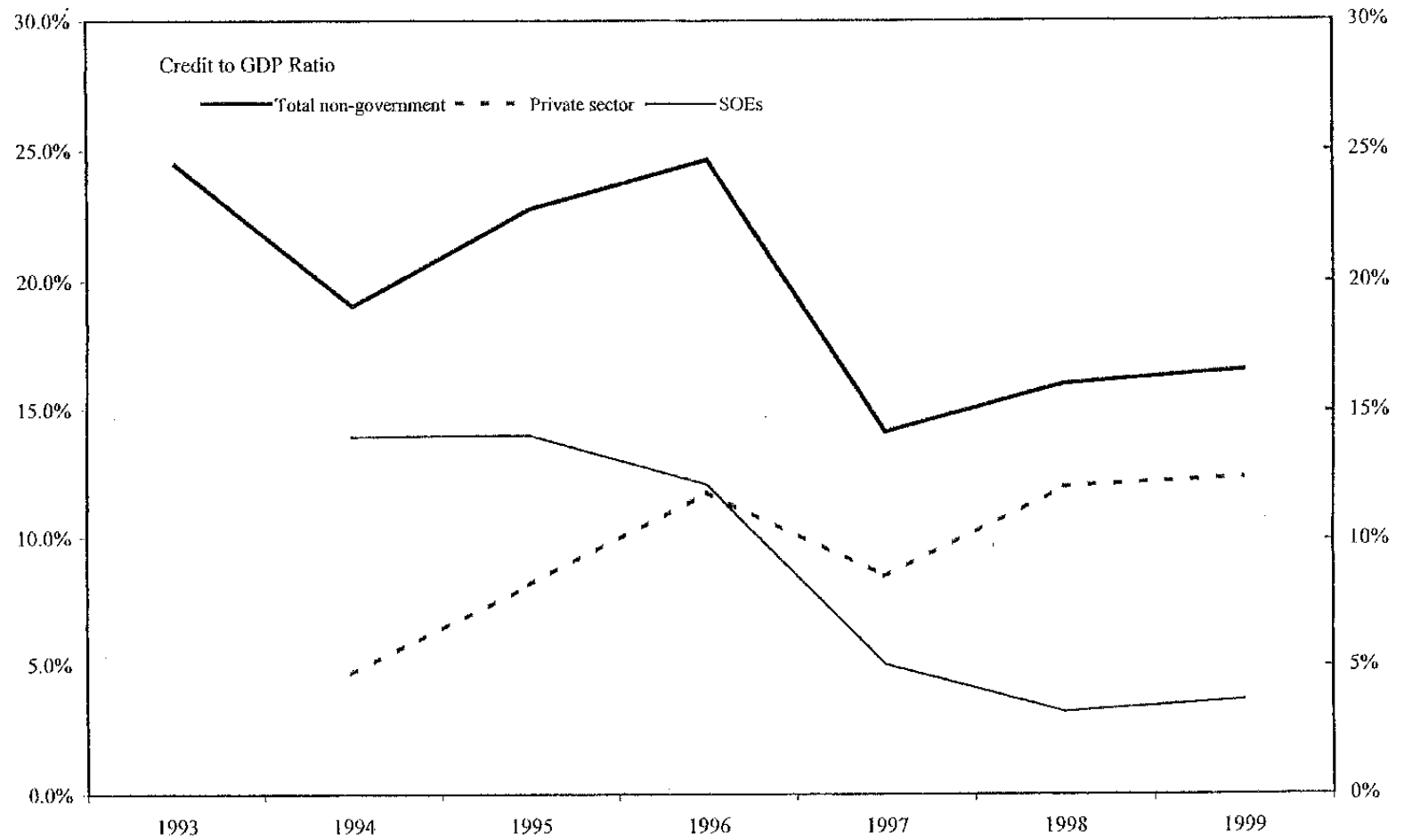
Source: Romanian authorities.

Figure III.7. Romania: End-Year Commercial Bank Deposit Rate and Inflation, 1992-1999



Source: Romania authorities.

Figure III.8. Romania: Credit to the Private Sector, 1993-1999



Source: Romanian authorities.

29. **Apart from the generally low level of financial intermediation, the exceptionally low credit level in Romania is also attributable to the following demand and supply factors:** on the demand side, the lending rates are very high, even in real terms, owing to both the high cost of financial intermediation and the lack of competition in the banking sector; wide-spread financial indiscipline renders much of the nongovernment sector able to use arrears as an alternative to bank financing; on the supply side, banks' capacity to enforce contracts and collect debt is limited, which makes them unwilling to extend credit; banks are saddled with nonperforming loans and hence are unable to expand credit significantly; banks could be better off investing in T-bills, which offer good rates of return as a result of high domestic financing needs.

30. **As a result, on average, less than half of bank assets in Romania are loans.** Healthier banks have even smaller shares of assets in loans, and often more than one-third in Treasury bills. T-bill rates have often been much higher than the average lending rates charged by the banks in the last few years (Figure III.9). Given that T-bills are low risk compared to lending, banks are therefore provided with an extra incentive to hold Treasury bills rather than lend to real economic activities.

31. **The maturity of the loan structure has evolved in recent years as well.** While in 1991 three-fourths of all credit to the nongovernment sector involved long-term credit, only one-tenth of such credit was long term at end-1999. This is closely related to the fact that foreign currency loans now account for some 60 percent of total loans (even after transferring BX's bad foreign currency loans to AVAB) to the nongovernment sector, up from one-fourth a few years ago. More than 85 percent of foreign currency loans are short- or medium-term lending. In addition, domestic currency loans are now almost exclusively short and medium term, as banks are not willing to lend on a long-term basis in an environment characterized by highly variable interest rates and general uncertainty.

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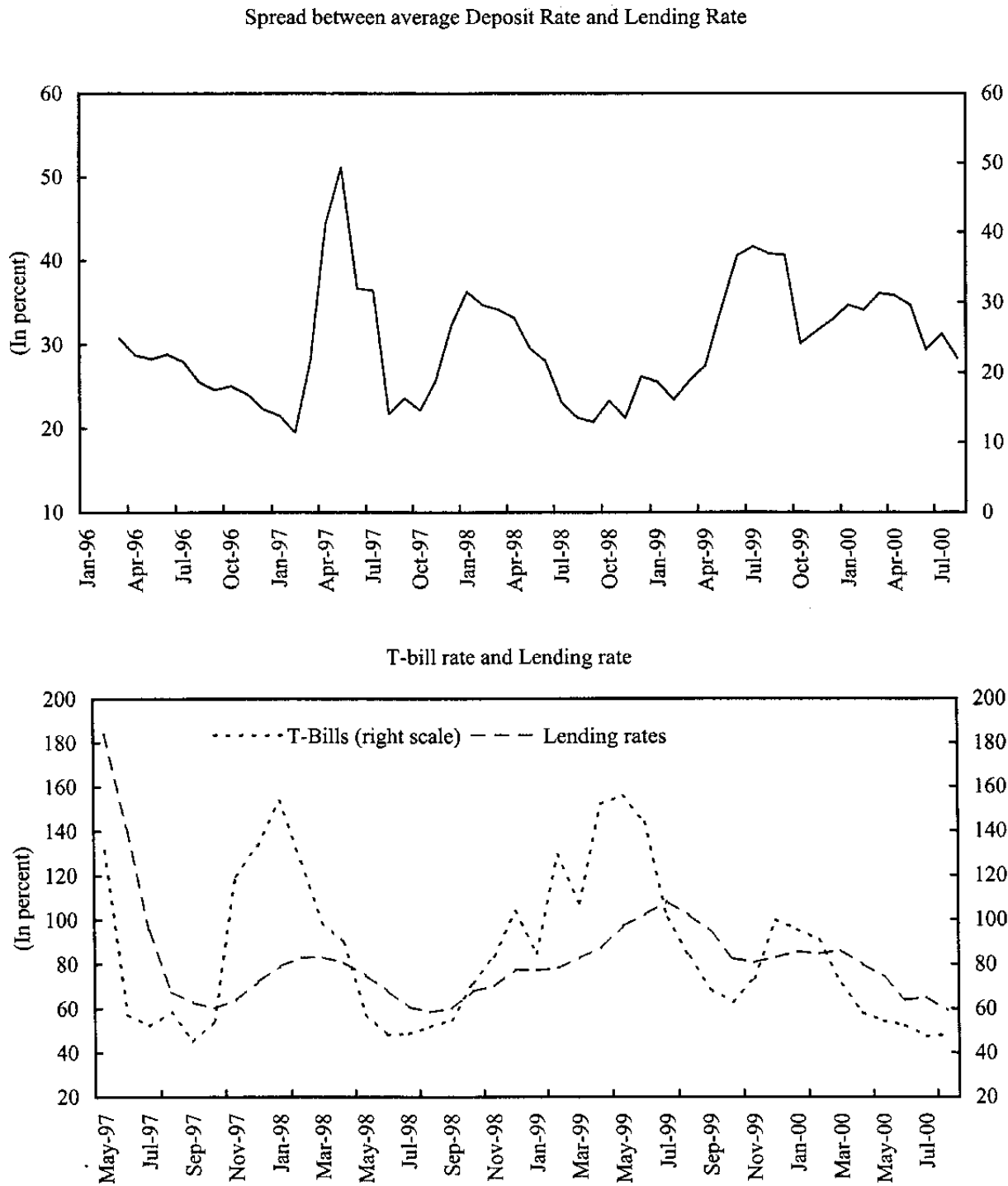
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Figure III.9. Romania: Developments of Interest Rates, 1996-2000



Source: Romanian authorities.

IV. FINANCIAL SECTOR ISSUES¹

1. **Significant progress has been made in restructuring Romania's financial sector in the past few years.** Largely as a result of the privatization and closure of some large state-owned banks in 1999, private banks now own more than half of the total banking sector assets in Romania. The enhanced supervision and stricter rules and regulations, along with the cleaning up of the bad loans of two large state-owned banks, have helped to substantially improve the quality of banks' loan portfolios. Substantial capital injections into the banking system have also improved the strength of the banks' financial position. In addition, the government is currently implementing asset classification and provisioning rules that are close to international standards, and is introducing International Accounting Standards in the banking system.

2. In spite of the meaningful progress achieved so far, a large part of the financial system remains weak and much needs to be done to enable Romania's banking system as a whole to carry out its intermediation function more effectively. The weakness in much of the financial system is reflected in the poor quality of assets even after significant cleaning up, and in the vulnerability of the system. The limited effectiveness of the banking system is revealed by the extremely low level of banking sector credit in the economy, as banks are unable or unwilling to lend. While the financial sector problem fundamentally reflects that of the rest of the economy, it is also attributable to the delay in restructuring the state-owned problem banks, the inadequate regulation and supervision of the banking sector, the unsatisfactory exit mechanism (procedures and legislations) for bankrupt banks, and the lax supervision over the nonbank financial sector.

3. The first three sections below describe recent developments in, and the current status of, the structure, the soundness, and the regulatory and supervisory environment of the banking sector, and the last section deals with the nonbank financial sector.

A. The Structure of Romania's Banking System

4. **Following the establishment of a two-tier system in 1991, Romania's banking system expanded rapidly but remained dominated by state-owned banks at the end-1998.** Romania effectively operated a monobank system until November 1990, when the two-tier banking structure was introduced. Specialized state-owned commercial banks were established in 1990² and developed rapidly, while private banks, including some with foreign

¹ This chapter was prepared by Olivier Frecaut and Tao Wang.

² Four specialized state banks—Banca Agricola (BA), BANCOREX (BX), Romania Commercial Bank (BCR), and Romania Bank of Development (BRD)—were established at the end of 1990, although Bancorex had existed since 1972, involved exclusively in foreign trade related transactions. Banc Post and the EXIM bank were established in 1991 and 1992, respectively. While the savings bank (CEC) was existed since 1949, it remained a state institution rather than a bank until the late 1990s.

ownership, emerged and expanded at an even faster pace. Nonetheless, at the end of 1998, the banking system remained dominated by heavily segmented state-owned banks, none of which had been privatized.

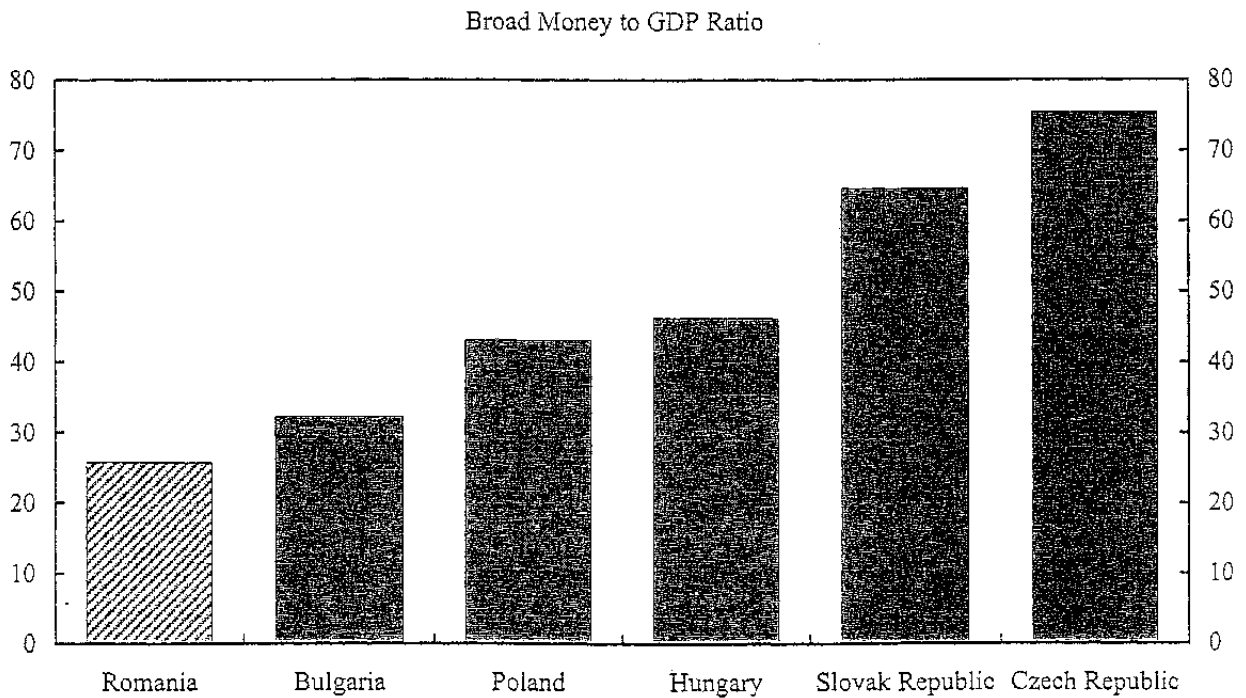
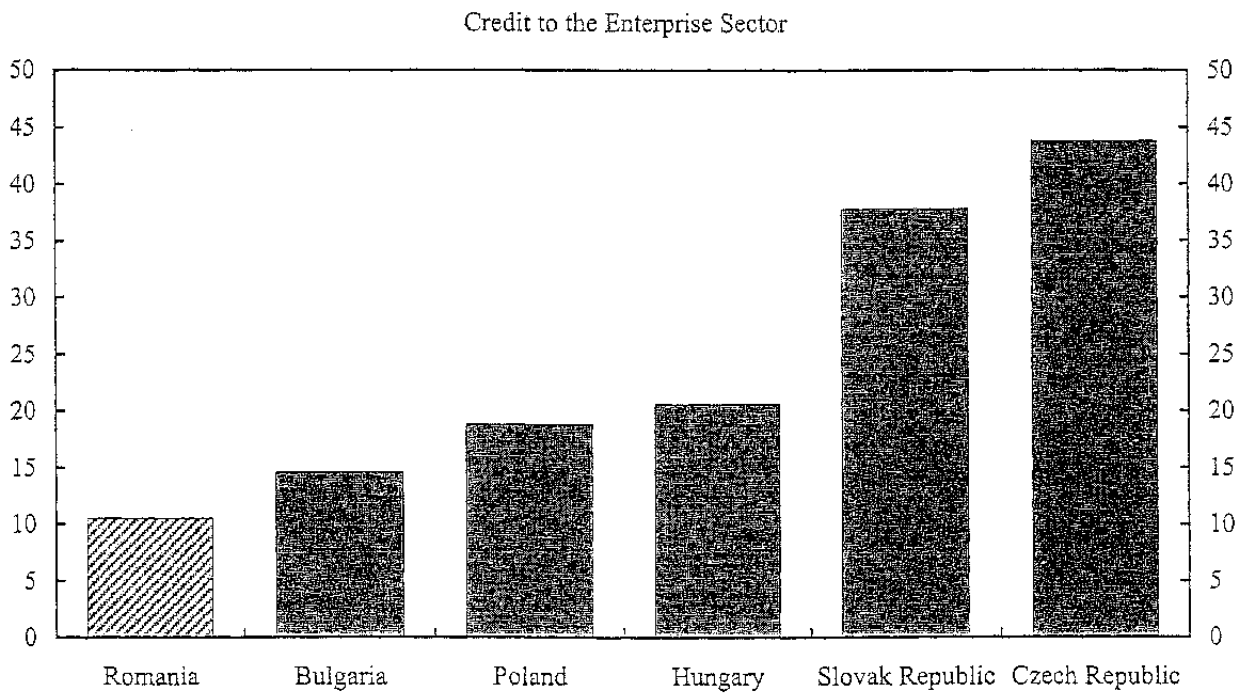
5. **The ownership structure of Romania's banking system has been altered drastically in the last two years with the privatization of two state-owned banks (BRD and Banc Post) and the closure of another, Bancorex (see Table IV.1).** At the middle of 2000, Romania's banking system consisted of 42 banks, of which 7 were branches of foreign banks. Four state-owned or majority state-owned banks remain in the system, and together they account for less than half of the total assets of the banking system. The private sector (majority private-owned) accounts for 56 percent, of which banks with majority foreign participation (majority foreign ownership, and foreign branches and subsidiaries) account for 44 percent of the banking system assets.

6. **The state-owned banks continue to take a majority share of domestic currency deposits, while the private banks concentrate on foreign currency deposits.** The four existing state-owned banks—BCR, BA, EXIMBank, and the Savings Bank (CEC)—accounted for about three-fourths of total lei deposits in the banking system as of June 2000, but only a quarter of total foreign currency deposits by residents. BCR became the largest bank in the system after receiving transfers of assets and liabilities from BX in mid-1999 and the final absorption of BX's balance sheet in September, and its share in the banking system in terms of total assets rose from 20 percent at the end of 1998 to about 30 percent at the end of 1999. Private banks, especially foreign banks and foreign branches, have concentrated on foreign currency transactions, taking about three quarters of residents' foreign currency deposits as of end-June 2000. The asset share of foreign banks (some with substantial Romanian participation) almost tripled in 1999 alone, bringing not only technical expertise and competition, but also capital in the form of direct foreign investment.

7. **Despite rapid development over the past decade and especially in the last two years, Romania's banking system as a whole plays a limited role in its intermediation function.** Ten years into transition, the overall level of monetization of the economy remains low, and the credit to GDP ratio in Romania ranks the lowest among the EU accession economies in the region.³ (Figure IV.1). The low level of financial intermediation in Romania reflected the lagged progress in restructuring and stabilization in the economy, as well as the weak financial system. Persistently high rates of inflation, variable interest rates (often negative in real terms), and problems at the large state banks all dampened confidence in and demand for the domestic currency and deposits (see previous chapter). Meanwhile, the large amount of nonperforming loans, the less-than-satisfactory enforcement on loan contracts, and the generally weak domestic activity discouraged lending.

³ The credit to GDP ratio was understated in 1999 when bad assets from BX and BA were transferred to the Asset Recovery Agency (AVAB), effectively removing credit amounting to 5 percent of GDP from the system.

Figure IV.1. Romania: Money and Credit, an International Comparison, 1999
(In percent of GDP)



Source: EBRD Transition report 2000.

Table IV.1. The Ownership Structure of the Banking Sector, 1996–2000					
	1996	1997	1998	1999	June 2000
<i>(Number of banks)</i>					
All commercial banks	35	37	45	41	42
<i>Of which:</i>					
Romanian incorporated banks	29	31	36	34	35
State-owned	7	7	7	4	4
<i>Of which:</i> Savings bank	1	1	1	1	1
Private	22	24	29	30	31
<i>Of which:</i> Joint venture with foreign investors	8	11	15	19	22
Branches of foreign banks	6	6	9	7	7
Banks under special treatment (including: under suspension, in court, etc)	1	1	3	3	3
<i>(Share of total banking sector assets)</i>					
All commercial banks	100	100	100	100	100
<i>Of which:</i>					
Romanian incorporated banks	96.1	93.4	94.3	92.9	92.5
State-owned	77.8	74.7	71.0	46.8	44.3
Private	18.4	18.7	23.3	46.2	48.2
<i>Of which:</i> Joint venture with foreign investors	4.3	6.4	10.4	40.5	44.1
Branches of foreign banks	3.9	6.6	5.7	7.1	7.5
Banks under special treatment (including: under suspension, in court, etc)	3.7	1.7	2.5	1.8	2.0
Source: Data provided by the NBR.					

B. The Soundness of the Banking Sector

8. **The soundness of Romania's banking system has improved significantly in the last two years, owing to the restructuring of state-owned banks, and the stricter loan loss provisioning and bank supervision.** The most visible improvement of Romania's banking system occurred in 1999, helped by the closure of BX (Box IV.1), and the restructuring of BA (Box IV.2). The AVAB—an Asset Recovery Agency—was established in early 1999 to help recover bad loans from the banking system, especially those of BX. A total of about US\$2.3 billion bad assets from BX and BA was transferred to the AVAB during the course of 1999, accounting for about 6 percent of GDP. The closure of BX and the removal of bad loans greatly reduced the presence of problem banks in the whole system (Table IV.2), and the total share of the nonperforming loans in the banking system declined to 35 percent at the end of 1999, compared with 59 percent in 1998 (Table IV.3). In particular, standard loans increased from 12 percent at end-1998 to more than 20 percent at the end of 1999.

Box IV.1. The Closing of Bancorex

Bancorex (BX), the former foreign trade bank, was the largest, most troubled state-owned bank in Romania prior to its closure in 1999. Accounting for about one-fourth of total banking sector assets, BX financed a significant portion of Romania's energy import requirements, as well as imports of capital goods, and was used as a major vehicle to subsidize the energy sector and energy-intensive industrial sector. The legacies of subsidized loans, years of mismanagement, and webbed political connections rendered BX the most troubled bank in the wake of exchange rate and price liberalization in early 1997. As BX was greatly exposed to debtors who traditionally relied on directed credit and the highly subsidized exchange rate, the termination of NBR's directed credit and exchange rate liberalization in 1997 made it unequivocally evident that the bank was insolvent.

The 1997 rescue effort for BX failed to solve its deep-rooted problems and turn the bank around, and BX collapsed in early 1999. At the end of 1997, BX received an equivalent of US\$600 million in government bonds (2 percent of GDP) in order to restructure its nonperforming loans in the portfolio. However, the restructuring of BX, which was to accompany the recapitalization, never took shape. Although a new management team was appointed in April 1998 and a few other steps were taken, a comprehensive restructuring plan was never implemented and the bank's situation deteriorated further. When BX was again in crisis in late 1998, the authorities considered restructuring measures with a view to privatizing the bank, although international experience would have favored liquidation of the bank. The authorities were concerned about the systemic risk and the cost of liquidation, and contemplated an up-front recapitalization, followed by restructuring and privatization. As the depth of the bank's problems was investigated, it became clear in early 1999 that BX was in much worse shape than expected, and that privatization with recapitalization would be prohibitively costly. Finally in April 1999, BX collapsed as depositors lined up to withdraw their money.

Realizing the magnitude of BX's problem, the authorities finalized, in April 2000, a liquidation plan aimed at the orderly removal of BX from the banking system. An estimate at the end of February 1999 put the nonperforming loans of BX at about 85-90 percent of its loan portfolio, or US\$1.7 billion (5 percent of GDP; this number increased as more became known about BX during the process of closing the bank), with most of the portfolio being in foreign currency. At that time, Bancorex accounted for one-fourth of total banking system assets and 47 percent of all foreign currency loans. A recapitalization would have required up to US\$2 billion from the budget, or almost 6 percent of GDP. It became clear that the only solution was to liquidate the bank in a rapid and orderly fashion. To avoid further runs on the bank and a systemic crisis amid fragile external and economic situations, the liquidation plan included the following key elements: appointment of a special administrator to replace BX's management (February 1999); transfer of all bad loans classified as such to the newly established Asset Recovery Agency (AVAB) for loan workout and debt recovery; winding down of BX operations, including transferring all liabilities to other banks and reducing staff and subsidiaries; and withdrawal of the banking license of BX before the end of July 1999.

In the event, the final resolution of BX was completed in the following manner:

- All bad assets classified as such at the end of 1998 were transferred to AVAB before July 31, 1999.
- Some of the deposit liabilities and most foreign debt liabilities were transferred to BCR, while a large part of the deposits was withdrawn from BX before July 31, 1999, owing to delays in transfers. The NBR provided special credit to staunch the financial hemorrhage of the bank. Both BCR and the NBR were compensated by government securities in corresponding currencies.
- The remainder of BX was merged with BCR, which absorbed the balance sheet of BX, as the authorities considered the actual liquidation politically unacceptable and too lengthy to complete. BCR received government securities to compensate for the gap in BX's balance sheet, and had the rights of first refusal to any BX assets transferred (on and off the balance sheet).
- The government approved the withdrawal of the banking license of BX on July 31 1999 (effective August 2).
- The final absorption of BX by BCR was completed only in September 1999, while BCR's refusal of the BX assets, which were transferred to AVAB in exchange of government securities, continued well into 2000. The Ministry of Finance also agreed to guarantee BX's off-balance sheet items (more than US\$400 million) transferred to BCR.

The closure of BX removed a large destabilizing factor in the financial system, albeit at a heavy cost to the tax-payers. The closure of BX removed some US\$2 billion in nonperforming assets from the banking system, which helped to improve the general soundness of the banking system. The removal of a large source of distress borrowing from the system also greatly diminished the level and volatility of market interest rates. In this process, the government took on public debt amounting to US\$1.5 billion (net of provisions and other assets), or 4.5 percent of GDP in 1999. This should be added to the 1997 recapitalization of US\$600 million, and the future assumption by the government of off-balance-sheet items and litigious liabilities currently with BCR (the exact number is unknown; estimated need for government securities is about US\$300 million).

It needs to be noted that the heavy fiscal costs incurred on BX in the last few years are mostly the realization of the losses incurred before 1997, caused both by the use of BX as a quasi-fiscal vehicle and by the mismanagement of the bank. Based on data provided by the authorities, the staff estimate that nonperforming loans before the recapitalization of 1997 amounted to about US\$1.5 billion, and much of the off-balance-sheet liabilities and litigious liabilities had been incurred before then as well. The delays in any meaningful restructuring or liquidation of BX in the subsequent two years cost the tax-payers an additional amount of money.

Box IV.2. The Restructuring of Banca Agricola

Banca Agricola (BA) was established in 1990 to specialize in financing the agricultural and rural sector on behalf of the state, and became the second largest insolvent bank in 1997. It expanded rapidly its portfolio, branch network, and staff in the first half of the 1990s and had become one of the top three banks in Romania by end-1995, accounting for about 20 percent of total banking system assets. BA lent almost exclusively to the agricultural sector and state-owned agribusiness enterprises, with funding sources primarily from the central bank as part of the government's directed credit programs, in addition to aggressive mobilization of consumer deposits. As a consequence of lending to nonviable firms and ongoing structural changes in the agricultural sector, BA accumulated large amounts of bad loans over the years. The problems worsened considerably when the directed credit to the agricultural sector was terminated in early 1997. By the middle of 1997, BA's nonperforming loans and related interests amounted to about 6 trillion lei (equivalent of US\$750 million), or 70 percent of its total assets.

The government initiated a restructuring plan in 1997 which succeeded in reducing the number of retail branches and staff, but did not alter fundamentally BA's financial solvency or its management practice. BA's rescue package¹ consisted of the following elements: A total of 6 trillion lei in nonperforming debts was identified, of which 2.6 trillion lei was removed to an account of "assets in the course of realization," and the rest was written off against the 3.375 trillion lei five year floating T-bills used to recapitalize the bank. The accompanying restructuring plan called for downsizing of employment and branches, as well as steps toward diversifying loan portfolio, which yielded some marginal improvement of the bank's situation. The total number of employees was reduced from 10,686 at the end of 1997 to 8,316 at the end of 1998 and 6,000 in August 1999, and one-fourth of the branches were closed down in the meantime. Nonetheless, the bank continued to make losses in part owing to the yield mismatch in assets/liabilities. Moreover, although a restructuring committee was appointed, the previous management still ran the bank and did not improve operational prudence, as it invested in non-market-determined and nontransparent investments such as the recently collapsed investment fund, FNI.

A renewed effort to restructure BA was agreed in 1999, with a view to a final resolution of the bank's problem by mid-2000 while containing the cost to the budget. BA continued to accumulate non-performing loans after 1997, while losses mounted in part because its performing assets were yielding below market returns. Once again, more than two-thirds of the loans, or about 2.7 trillion lei, were nonperforming as of mid-1999, in addition to about 1 trillion lei in assets in the course of recovery. Rumors in the public domain concerning BA's liquidity problems triggered heavy cash withdrawals from the bank in mid-1999, which were temporarily met by NBR's exemption of BA's minimum reserve requirements, and by heavy borrowing in the interbank market. The government decided to accelerate the restructuring process, which involved: (a) transfer of all bad assets—2.7 trillion lei—and assets in the Danube Fund (1 trillion lei, formerly assets in the course of realization) to AVAB in exchange for government securities; (b) appointment of an administrative board to effectively place BA under the control of the NBR; (c) establishment of a strict time table for restructuring and privatization of the bank; and (d) resolution of the bank if privatization turned out to be unrealistic or too costly to the budget.

In the event, the restructuring and privatization of BA progressed in the following manner:

- A consortium of privatization advisors headed by a foreign investment bank was contracted using tendering procedures in October 1999;
- All bad assets and assets from the Danube Fund were transferred to AVAB by December 1999;
- An Administrative Board was appointed in November 1999 to oversee BA's day-to-day operations, and the board took more drastic measures in downsizing the bank while cutting operational costs;
- The due diligence of BA was completed in February 2000, and the privatization strategy based on the due diligence was approved by the government in April 2000, when BA was publicly offered for sale;
- A firm interest letter from a potential investor was received in May 2000 but the investor withdraw its intention later; another interested party emerged in July but requested extension of privatization deadlines to allow time for assessment;
- An offer by the second investor was reportedly made in September 2000. Negotiations are reportedly ongoing between the government and potential investors, while the bank is being kept afloat with special credit lines from the NBR.

¹ Stipulated by Emergency Ordinance No. 43/1997.

Percentage of Total	End-1998	End-1999	Mid-2000
Liabilities - Problem banks	38.9%	12.2%	8.2%
Problem banks – state-owned	30.4%	6.1%	5.1%
Bancorex	22.7%	0.0%	0.0%
Banca Agricola	7.6%	6.1%	5.1%
Problem banks – private	8.6%	6.1%	3.0%

9. **Meanwhile, stricter requirements on loan loss provisions, capital adequacy levels, and enhanced supervision improved the banks' capital and provisioning levels and their compliance in the last two years (Tables IV.3 and IV.4).** Thanks to the increased minimum capital adequacy requirement from 8 percent to 12 percent in 1999, the resolution of a large amount of non-performing loans, and significant capital injection, the ratio of banks' capital to assets increased markedly in 1999 and 2000. In part owing to stricter supervisory enforcement, the actual provisions for loans improved from about 73 percent in 1997 and 1998 to about 100 percent in 1999.⁴

	1996	1997	1998	1999	June 2000
<i>(Share of nonperforming loans)</i>					
Romanian incorporated commercial banks	47.2	52.6	58.5	35.4	35.4
State-owned	43.0	51.1	52.9	32.3	36.2
Private	63.3	60.1	73.9	37.5	34.8
<i>Of which: Joint venture with foreign investors</i>	24.1	56.2	45.1	26.0	34.2
<i>(Share of actual provision/required provision)</i>					
Romanian incorporated commercial banks	64.5	73.1	73.8	102.7	94.4
State-owned	59.2	74.5	72.3	114.5	91.2
Private	79.0	57.0	77.4	94.6	96.9
<i>Of which: Joint venture with foreign investors</i>	40.3	56.0	57.6	90.7	97.3

⁴ The write-off of bad loans and transfer of bad assets to AVAB obviously contributed to the decline of required loan loss provisioning.

	1996	1997	1998	1999	2000
Romanian incorporated commercial banks	14.0	13.6	10.3	17.5	21.4
State-owned	13.2	12.0	10.3	17.5	20.4
Private	18.4	22.0	10.0	17.5	22.1
<i>Of which: Joint venture with foreign investors</i>	22.2	34.7	36.6	27.0	22.2

10. **Notwithstanding the meaningful progress in improving the underlying health of banks' balance sheets, a large part of Romania's banking system is still plagued by poor loan quality and underprovisioning.** Nonperforming loans in the banking system still accounted for about 35 percent of the total loan portfolio at end-December 1999 and June 2000, reflecting past legacies of subsidized loans and poor accounting standards, as well as poor banking supervision.⁵ Economic recession and another large depreciation in 1999 further worsened banks' balance sheets. In addition, while the restructuring helped to improve indicators of bank soundness, stricter loan classification and provisioning rules contributed to the worsening of the indicators even though the underlying soundness of the banks may have improved.

11. Nonetheless, the official figures presented above show a grim picture of Romania's banking system. In addition, the official figures understate the true scope of the banking system problems, albeit less so over time, for the following two reasons:

12. **First, the current loan loss provisions are insufficient, owing to unsatisfactory asset classification regulations and substandard loan loss provisioning requirements.** The current loan classification rules in Romania are based on the financial standing of the borrower as well as the record of debt service, and lax requirements on debt service and the judgment element of the rule sometimes wrongly classify what should be nonperforming loans as standard loans. In addition, because the provisions are made on the basis of the loan classification conducted six months earlier, there is substantial underprovisioning compared with required provisions based on the current loan classification. Moreover, required provisions are based on loan values net of collateral based on its book value, and the book value of collateral is often much higher than the market value. Also, no specific provisions are made against interbank claims.

⁵ The state-owned banks were used as a means of quasi-fiscal operations to sustain the inefficient loss-making state enterprises and the agricultural sector prior to 1997, accumulating nonperforming loans on their balance sheets. The problems were aggravated by the elimination of NBR's directed credit and by the sharp depreciation and high interest rates that followed the exchange rate and price liberalization in early 1997.

13. **Second, the reported capital adequacy ratio overstates the solvency situation of the banks.** Banks' assets are improperly valued (through, for example, the aforementioned insufficient loan loss provisioning), and insufficient consideration is given to market risks (exchange rate and interest rate risks, for example). Partly because of the problematic measuring of capital and assets in the Romanian system, the NBR increased banks' minimum capital requirements from 8 percent to 12 percent in 1999 to partially compensate for the problem.

14. **The authorities' new regulations concerning asset classification and provisioning represent a major step forward in addressing these problems and putting Romania's banking sector on a sounder footing.** The new regulations on asset classification and provisioning, introduced in October 2000, bring Romania closer to the international standards. Based on the new regulations, loans are classified solely on the debtors' debt-service record, for which a more stringent rule on debt-service delays is in place. Moreover, banks are required to classify and provision for their assets every month, and the write-offs of bad assets and related interests are 100 percent tax deductible.⁶ The authorities are also introducing the International Accounting Standard (IAS) to replace the Romania Accounting Standard (RAS) for all commercial banks, which will improve further the adequacy of asset valuation in the banking system.⁷

15. **Another weakness of Romania's banking system is its vulnerability in a number of aspects.** First, a significant portion of the profits in the profitable banks comes from high returns on the T-bills, which is highly volatile and can not be sustained over the long-run. Second, as the share of nonperforming loans in banks portfolio is high, the banks are particularly vulnerable to economic recession and restructuring at the enterprise level—especially since the major enterprise restructuring still lies ahead. Third, since the banking sector as a whole has significant foreign currency liabilities and foreign currency lending, it is vulnerable to a serious decline of market confidence in the domestic currency, and/or to a sharp un-anticipated exchange rate depreciation.

C. Regulatory and Supervisory Issues in the Banking Sector

The regulatory framework

16. **Over the last three years, the regulatory framework for banking has been continuously strengthened.** In spite of some remaining weaknesses, it is being progressively

⁶ One key improvement that is not in the regulation was a rule implemented in 1999—banks are now required to provision 100 percent for interest overdue by more than 90 days (which was previously counted as income), irrespective of the value of collateral.

⁷ One main difference between the two standards is that under the RAS, fixed assets (and collateral) are valued at book value rather than market value, but are not inflation adjusted, while the IAS values the fixed assets (and collateral) at market value, but inflation adjusted.

brought in line with European and international standards and practices, with technical assistance from various sources, including the Fund, the EU, and USAID.

17. New laws governing the banking sector, including a Central Bank Law, a Commercial Banking Law, and a Bank Insolvency Law were adopted during the first half of 1998. The first two are by and large satisfactory, and have brought Romania close to accepted international practices. On this basis, a number of new and revised prudential regulations have been and continue to be issued to progressively tighten prudential standards, plug loopholes and address remaining shortcomings. By contrast, the legislation on problem banks still suffers from severe shortcomings. In particular, the determination of a bank's insolvency is made by a Court instead of the central bank in its capacity as banking supervisor, and the procedure to initiate bankruptcy proceedings remains cumbersome and ineffective.

18. The minimum capital requirement was raised to Lei 100 billion in May 2000, and is planned to be raised again to Lei 150 billion in May 2001. Consideration is being given to steeper raises. However, contrary to international practices, there is currently no requirement for banks to permanently feature a surplus of assets over liabilities equal to or larger than the minimum capital. It is the central bank's intention to address this regulatory shortcoming in the near future.

19. The capital adequacy requirements are consistent with the Basel Committee standards. During 1999, the minimum level was raised from 8–12 percent. This triggered a substantial improvement in the banking sector's reported equity position. However, capital adequacy is relevant only as far as bank assets are properly appraised. Since Romania's current loan loss provisioning rules are not strict enough, the banking system's real solvency position is weaker than the reported one.

20. Thus, the next step in tightening the regulatory framework was to prepare stricter loan classification and provisioning rules. Such rules have been issued, and, at the expiration of a transitory period, came into force in October 2000, forcing the banks to set aside significant amounts of additional provisions. Another major improvement in this field is the tax deductibility of loan loss provisions. In the past, some of the failed banks had paid taxes on accrued interest that they did not receive, exacerbating their insolvency. Banks are striving to comply with the new loan classification and provisioning rules, and significant progress is being achieved, under close monitoring of the central bank.

21. Progress is still underway as regards foreign exchange risk. A new regulation has been prepared, but is not enforced yet. It takes into account the overall position, but fails to set limits on individual currencies, and on intra-day positions. There are still some unsettled issues on the elements to be included in the foreign currency position, in particular the capital when denominated in foreign currency, and on the tax treatment of positive revaluation differences of foreign exchange denominated assets and liabilities. Reporting requirements on foreign exchange positions are also still somewhat below best international standards and practices.

22. The regulation of banks' liquidity is also a work in progress. Options are currently being considered, and, with outside technical assistance, a draft prudential regulation is being prepared.

Banking supervision

23. Banking supervision has also been significantly strengthened in a number of aspects, although more needs to be done on resolution methods for problem banks, and the Deposit Guarantee Fund is in financial disarray.

24. The improvement in banking supervision is reflected in a more effective organization, the implementation of an early warning system, and the development of on-site inspections. These improvements are summarized in Box IV.3.

25. As concerns the resolution methods of problem banks, several bank closures over the recent past have tested both the central bank's ability and the applicable laws and regulations' suitability in dealing with distressed banks. A few insolvent banks have been able to remain open and active for several years, defying the central bank's efforts to get them closed. As a result, there are still several unresolved problem banks requiring daily attention and waiting for a resolution of some sort.

26. This experience confirms that further improvements in the Bank Insolvency Law are needed. In particular, the central bank needs more discretionary power to take special administrative measures against problem banks and to file for bankruptcy, while appeal possibilities by third parties should not hold up the bankruptcy procedure as easily as they do now. Ways to improve the effectiveness of the Court system also need to be considered. Detailed proposals are being prepared within the central bank and are to be discussed in the near future with the government with a view to introducing amendments to the current Law.

27. As regards the Deposit Insurance Fund, it has been an operational success but a grave financial failure. The Deposit Guarantee Fund was established in 1996, i.e. before the banking system had been cleaned up and stabilized. By the time it had to repay the depositors of a failed bank for the first time in 1999, its reserves were still modest, and two thirds of its resources were soaked up, in spite of that bank's limited size (0.4 percent of the banking sector). When a second, more sizeable bank (2.4 percent of the banking sector) closed in early 2000, the cost for the Fund represented 6.5 years of ordinary assessments, and the Fund had to be financially supported by the central bank. With the closure of a third bank (1.7 percent of the banking sector) in mid 2000, additional central bank support was unavoidable. For years to come, the Fund will struggle to repay the central bank, even without any new bank closure, and remain unable to accumulate any reserves, defeating the very purpose of its establishment.

Box IV.3. Recent Improvements in Banking Supervision

Organization

The NBR's supervisory function was reorganized in September 1999. On-site and off-site supervision were combined in a new Supervision Department. It consists of four Divisions. Three are in charge of a portfolio of individual banks. There is no separate division for problem banks: they are spread among the Divisions to level off the workload. The fourth Division of the Supervision Department is the Synthesis Division. This division is in charge of the Bank Rating and Early Warning system described below.

As part of the reorganization, a second department was formed: the Financial and Banking Policies Department. This department is responsible for licensing banks and exchange offices, issuing prudential regulations, and managing the Credit Information Bureau.

This new organizational structure appears by and large satisfactory. However, the coordination between the supervisory and policy departments could be improved; there is not yet adequate legal expertise in the Supervision Department and in the Financial and Banking Policies Department, and an efficient division of labor with the central bank's Legal Department remains to be defined.

Off-site monitoring

Bank Rating and Early Warning system: Since September 1999, the Synthesis Division of the Supervision Department, has been focusing on the development and the implementation of a Bank Rating and Early Warning system based on accepted international standards. This system covers capital adequacy, asset quality, profitability, and liquidity. It is based on 30 internally developed ratios per component, which result in a rating (scale 1 to 5) for each component as well as in a composite rating, which characterizes the overall quality of a bank. The quality of management is not directly included in the system, but taken into account when computing the composite ratio.

Apart from the composite rating per bank, an extensive number of ratios has been defined, which, in combination with the rating system, are used for the monthly analysis of the banking system. The analysis is in principle on an aggregate level, but where necessary details of individual banks are added as an explanation. The analysis, together with the result of the rating system is presented monthly to the Board of Directors. There is a delay of two months in the presentation of the data. The implementation of the rating system as well as the monthly analysis are significant achievements bringing Romania closer to EU and international best practices.

Decision Matrix for Progressive Enforcement Actions: Also since September 1999, a Decision Matrix for Progressive Enforcement Actions has been put in force. It identifies remedial actions appropriate in various situations, based on the Banking Law. After a break-in period of a few months, the matrix has been revised and the measures to be taken have been strengthened. A manual, which contains the procedures for the actions to be taken on the basis of the situation identified in the matrix is currently being drafted.

On-site inspections

Considerable achievements have also been made regarding on-site inspections. Much effort has been made to improve the on-site methodology and to train the staff of the three divisions, also with technical assistance from USAID. Gradually, the coverage of on-site inspections is widened, and the focus moved away from the formal checking of data towards a more risk-oriented approach of understanding the facts behind the figures.

Each bank is now inspected at least once per year. Moreover, the Savings Bank (CEC) has been included in the inspections since September 1999; previously this was not the case, because of the special status of the CEC, of which the deposits are guaranteed by the state.

D. Nonbank Financial Sector Issues

28. The nonbank financial sector is still in the midst of serious unresolved issues and acute problems. While progress has been initiated on bringing credit cooperatives and popular banks under an appropriate supervisory umbrella, the mutual funds sector has been devastated by a high-profile incident and will need to be rebuilt from the ground up, and other nonbank financial institutions' situation still needs to be comprehensively assessed.

Credit cooperatives

29. A 1996 Law has authorized the introduction of credit cooperatives and popular banks. These are grass-root, unregulated (no licensing, no prudential norms, no required reserves, no reporting requirements) financial intermediaries which compete directly and on uneven terms with regular banks. About 2000 entities of this kind are active in Romania. Most of them are very small, and some organized themselves in networks. Although specific data is missing, their aggregated assets are estimated at ROL 3,000 billion, some 2 percent of the total for the banking system or 0.5 percent of GDP

30. The dangers of this situation were clearly demonstrated when the largest institution of this type, Banca Populara Romana, with assets of Lei 800 billion, appeared unable to repay its depositors in June 2000. This unfortunate incident triggered adverse sentiment about the financial sector as a whole. On the other hand, it provided the impetus to accelerate the completion of a new legislation, already being prepared within the central bank, to regulate these institutions.

31. Under an Emergency Ordinance issued in July 2000, the credit cooperatives and popular banks were given one month to identify themselves with the central bank or wind down their operations. The identified institutions have been given two options. They can become full fledged banks, provided that they meet all prudential requirements imposed on banks. It is not expected that any of the concerned institutions will be able to take this option. The second option is to join a cluster of at least 100 similar institutions and organize a network. Two such networks, and possibly a third one, are in the process of emerging. They will be subjected to specific prudential regulations and requirements, somewhat lighter, but by and large comparable, to those imposed on banks. They will not be allowed to use the word "bank" in their names. The rules are based on the principles of the cooperative banks as applied in a number of European Union countries. Each network will have a central institution, coordinating the activities of the cooperatives and serving as administrative center. The supervision of the individual cooperatives in the group will be delegated to the central institution. The central institution will be supervised by the central bank.

Investment funds

32. The investment fund sector is in deep disarray in Romania at the current juncture, following the May 2000 collapse of the largest mutual fund, Fondul National de Investitii (FNI), which represented 90 percent of the market and had high visibility, with high profile

nationwide advertisement campaigns on television and magazines. After the collapse, it became clear that FNI had been little more than a pyramid scheme for years, and that none of the safety measures against fraud had been effective in stopping it. The head of FNI's management company fled abroad, thereby impeding the investigations. The National Securities Commission (CNVM), in charge of supervising the investment funds, did not play its role, in spite of blatant anomalies, and its former Head has been jailed. Moreover, CEC, the state owned savings bank, developed a complex and unhealthy relationship with the FNI, as a shareholder in the management company; an investor for substantial amounts, generating large profits until the collapse; a provider of a disputed guarantee for the investors; and a close business partner, allowing, through a subsidiary, use of its name and reputation as a state owned bank as a promotion tool in advertisement.

33. Meanwhile the investigations into the affair have taken longer than initially expected. The results of the investigations on FNI as regards the beneficiaries of the fraud and the complexity which made it possible to last for several years have reportedly been concluded but not been announced yet. The incident has now taken a political turn, with the Parliament getting involved, amidst growing controversy. Most recently, the cabinet has initiated legislation that would grant limited compensation to all FNI investors before the fund's assets are recovered.

34. In the meantime, two courts have decided that CEC be held responsible for the guarantee extended compensate for the losses of the FNI investors. The financial impact is potentially very large, more than CEC's net equity. An new appeal by the CEC is pending. The authorities, with World Bank assistance, have begun work on the governance issues involved in the FNI incident, and more generally on the regulation and supervision of the non bank financial sector.

V. ASSESSING EXTERNAL VULNERABILITY¹

A. Introduction

1. The most significant development in Romania's external sector during 1997-99 was the period of intensified exchange market pressure and the correspondingly large external adjustment that began in the latter part of 1998 and continued through the first half of 1999. This chapter assesses Romania's external vulnerability leading up to and following this period by examining a range of vulnerability indicators.
2. Both an informal analysis of the indicators, and a formal calculation of the vulnerability index based on Brusière and Mulder (1999), show that Romania was relatively vulnerable to crisis by mid-1998. This vulnerability was due to a misalignment of fundamentals, in particular an overvalued exchange rate, as well as to an escalating liquidity shortage, as signaled by the increase in short-term debt relative to reserves.
3. Towards the end of 1998, exchange market pressure intensified considerably, and was sufficiently high to be classified as a balance of payments crisis by some of the measures common in the research literature. The authorities understood the seriousness of the situation and, in the context of negotiations which led to the most recent stand-by arrangement, allowed the exchange rate to adjust rapidly. The authorities' actions most likely averted a more serious crisis. However, at the time the authorities responded, the scope for a more gradual approach was very limited. Such an approach may have been feasible earlier.
4. Following this external adjustment, indicators currently show Romania's external vulnerability has lessened considerably. This has been accompanied by other signs of a strengthened external position, both in terms of fundamentals and liquidity, most notably a sharp acceleration in export volumes and a successful return to international bond markets in September 2000. Nevertheless, steps to further reduce Romania's vulnerability remain important, in particular through the reform of key structural weaknesses in the economy and the continued accumulation of foreign reserves.
5. The rest of the chapter is organized as follows. The next section compares the period of exchange market pressure with definitions of balance of payment crises used in the literature, then informally analyses a set of indicator variables in the run up to the crisis. Section C looks at Romania's external vulnerability after the crisis, and discusses areas where further steps could be taken to reduce vulnerability in the future. The final section concludes.

B. Indicators of External Vulnerability

6. In the literature, there have been two main approaches taken towards the use of external vulnerability indicators.² The first, characterized by Kaminsky, Lizondo, and

¹ Prepared by Ward Brown.

Reinhart (1998), attempts to identify variables that are leading indicators of balance of payments crises (so called "early warning systems"). An alternative approach, taken, for example, by Sachs, Tornell, and Velasco (1996), tries to identify characteristics of an economy which make it relatively vulnerable to a balance of payments crisis should one occur elsewhere.

7. The approach taken in this section is closer to that of Sachs, Tornell, and Velasco (1996). A set of indicators is compared informally across a cross-section of countries just before and after the Russia crisis of August 1998.³ Several indicators do show that Romania was comparatively vulnerable to a balance of payments crisis in 1998: (i) the appreciation of the real exchange rate; (ii) the size of the current account deficit; and (iii) the decrease in liquidity, evidenced in particular by the increase in short-term debt to reserves in the first half of 1998. In an effort to formalize this approach, a fitted vulnerability index is calculated using the estimates from a cross-sectional regression run by Brusière and Mulder (1999). Those results also show Romania to have been relatively vulnerable in 1998. Romania's index value ranks 9th out of 23 emerging market countries in the Brusière and Mulder (1999) sample.

Balance of payments crisis?

8. We begin by asking whether the episode of intensified exchange market pressure was significant enough to expect indicators to be (informally) signaling Romania's potential vulnerability. In other words, by the standards in the literature, could this episode be classified as a balance of payments crisis?

9. An early and simple approach was taken by Frankel and Rose (1996), who defined a balance of payments crisis as a year with a nominal depreciation of least 25 percent that was also at least 10 percent higher than the previous year. The episode in Romania easily falls into this definition. In 1999 Romania's currency depreciated by 70 percent, against a 32 percent depreciation in 1998. Moreover, if we measure the period of depreciation from June to June, the contrast is even starker: 84 percent in 98/99 versus 20 percent in 1997/98.⁴

² For a brief overview of the literature, see Berg, et. al. (1999).

³ The following cross-section of central and eastern European countries was chosen: Bulgaria, Czech Republic, Estonia, Hungary, Lithuania, Latvia, Poland, Romania, Russia, Slovak Republic, Turkey, and Ukraine. An advantage of focusing on these countries is their similarity, in terms of economic structure and institutions, to Romania's economy. Moreover, they are all emerging markets, the majority of which have accessed international capital markets in the last five years.

⁴ For countries with high inflation, this definition is not sufficiently strict in that it leads to too many episodes being classified as crises. However, even in real terms the Romanian currency fell by over 20 percent over this period.

10. However, this somewhat narrow definition of a crisis does not capture periods where pressure on the exchange rate is intensified, but where policy makers take the necessary steps to avoid a sharp nominal depreciation. Therefore, alternative quantifications of balance of payments crises have looked at indices of several variables. For example, Kaminsky, Lizondo and Reinhart (1998) use an index based on a weighted average of the exchange rate and reserves. Similarly, Eichengreen, Rose and Wyplosz (1995) use a weighted average of the exchange rate, reserves and domestic interest rates.

11. Figure V.1 shows both of these indices calculated on a monthly basis for Romania.⁵ Positive values indicate periods of increased exchange market pressure—that is periods when reserves are falling, nominal exchange rate depreciation is high, and interest rates are high. These indices show exchange market pressure was highest between September 1998 and June 1999, with peaks in March 1999 for the Kaminsky, Lizondo and Reinhart index, and May 1999 for the Eichengreen, Rose and Wyplosz index. Kaminsky, Lizondo and Reinhart (1998) quantitatively defined a crisis as a month in which their index variable was at least three standard deviations from its mean, while Eichengreen, Rose and Wyplosz (1996) used two standard deviations. Formally, therefore, the Romanian episode can be classified as a crisis only under Eichengreen, Rose and Wyplosz 's methodology.⁶ Nonetheless, regardless of the formal classification, exchange market pressure was sufficiently intense to expect some indicators to have signaled Romania's vulnerability.

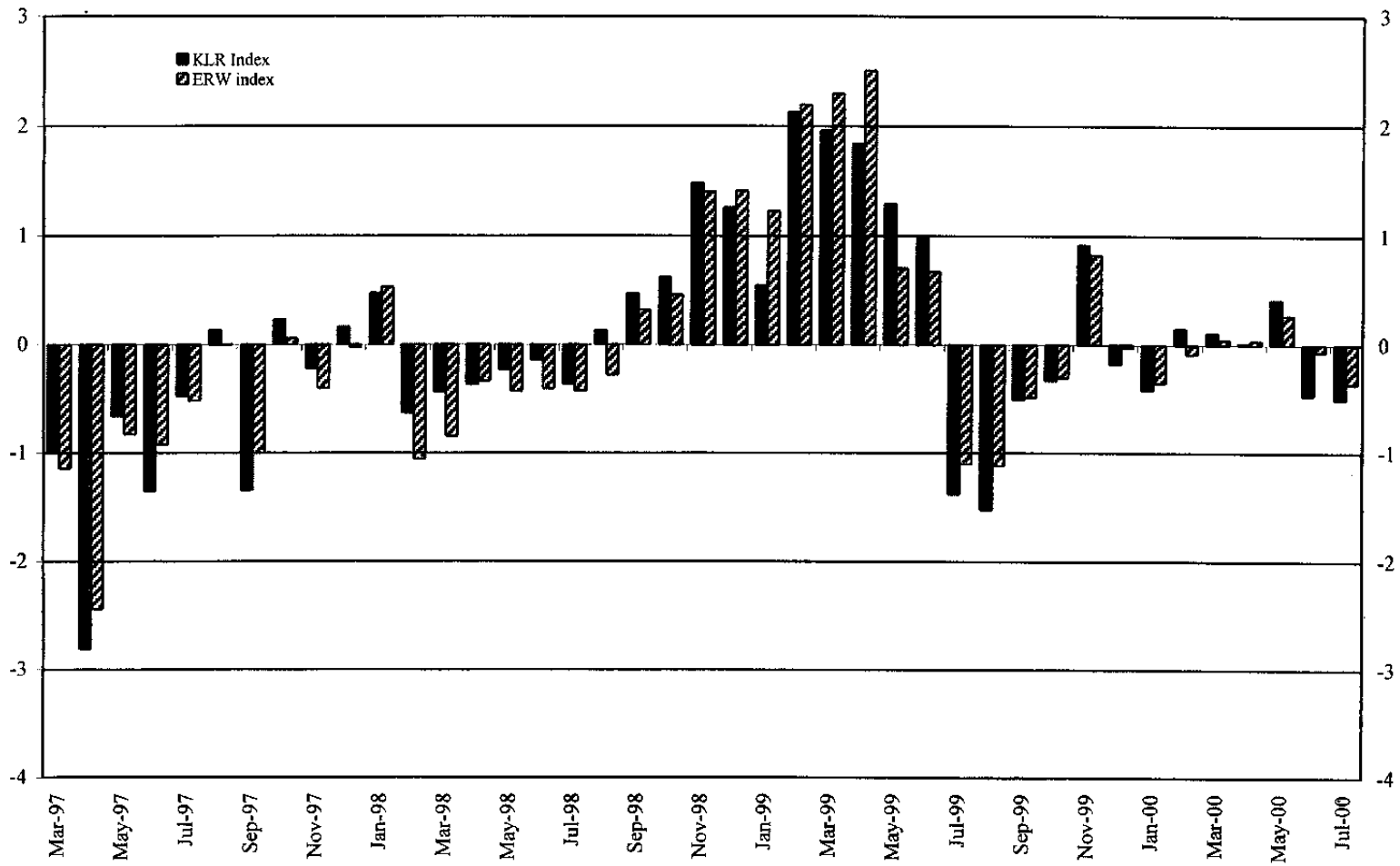
12. Rather than using a threshold cutoff, Sachs, Tornell and Velasco (1996) interpret the different values of their index as different intensities of a crisis. To apply this approach to this episode, a crisis index used in Brusière and Mulder (1999) was calculated for Romania and is presented alongside the results for the cross-section of countries used in that study (Table V.1).⁷ For the countries in that table, the value of the index was calculated for the period July–October 1998. As shown above this is before exchange market pressure was at its most intense in Romania. Nevertheless, the value of the index for Romania is 11.3, making Romania the sixth most vulnerable country in the sample. The only European country in this sample with a higher ranking was Russia itself.

⁵ The weights were calculated to equate the conditional variances of the variables in the index. The indices have been normalized to have zero mean and standard deviation one (plotted on the vertical axis). The sample period used was from 1997M3 to 2000M7 thus avoiding the large nominal depreciation of the official exchange rate due to the liberalization of the foreign exchange market in early 1997.

⁶ However, the exchange market was relatively volatile over the whole sample period, which would bias upwards the standard deviation of the indices. Using a longer sample has the drawback that this would encompass several regime shifts.

⁷ Brusière and Mulder (1999) use the index proposed by Sachs, Tornell and Velsaco (1996), which is very similar to the Kaminsky, Lizondo and Reinhart (1998) index.

Figure V.1. Romania: Indices of Exchange Market Pressure, 1997-2000



Sources: Romanian authorities and Fund staff estimates.

Solvency indicators

13. Turning to an examination of indicators, the analysis focuses on a narrow set of variables which can be divided into two classes: (i) solvency indicators, and (ii) liquidity indicators. Very simply, a country is solvent if the net present value of its future stream of current account surpluses is at least equal the its outstanding stock of net external debt. In order to assess a country's solvency then, a natural starting point is to look at measures of its outstanding external debt.⁸

Debt indicators

14. Cross-country comparisons of debt levels are problematic, as debt data typically vary in coverage or accuracy across countries. To mitigate this problem somewhat, a cross-country database, the *World Development Indicators*, is used rather than a country specific database such as the WEO.⁹ Tables V.3–V.5 show the total external debt for the sample of countries scaled by three different variables: GDP, GDP using PPP exchange rates, and exports of goods and services.

15. None of these measures show Romania to have a level of external debt which would be difficult to service under relatively moderate assumptions regarding future GDP growth. Romania's debt-to-GDP ratio is slightly under the median for the sample in 1997. This ratio falls in 1998, improving Romania's ranking even further, though the decline is to some extent due to the appreciation of the lei. Using PPP exchange rates to value GDP does not change the picture significantly. Romania's ratio remains below the sample median and declines in 1998. Scaling by exports shows Romania's debt burden to be comparatively heavier, but still not in a range that would be a clear signal of vulnerability. Its ratio is slightly above the median in both years, while its ranking in the sample remains unchanged.

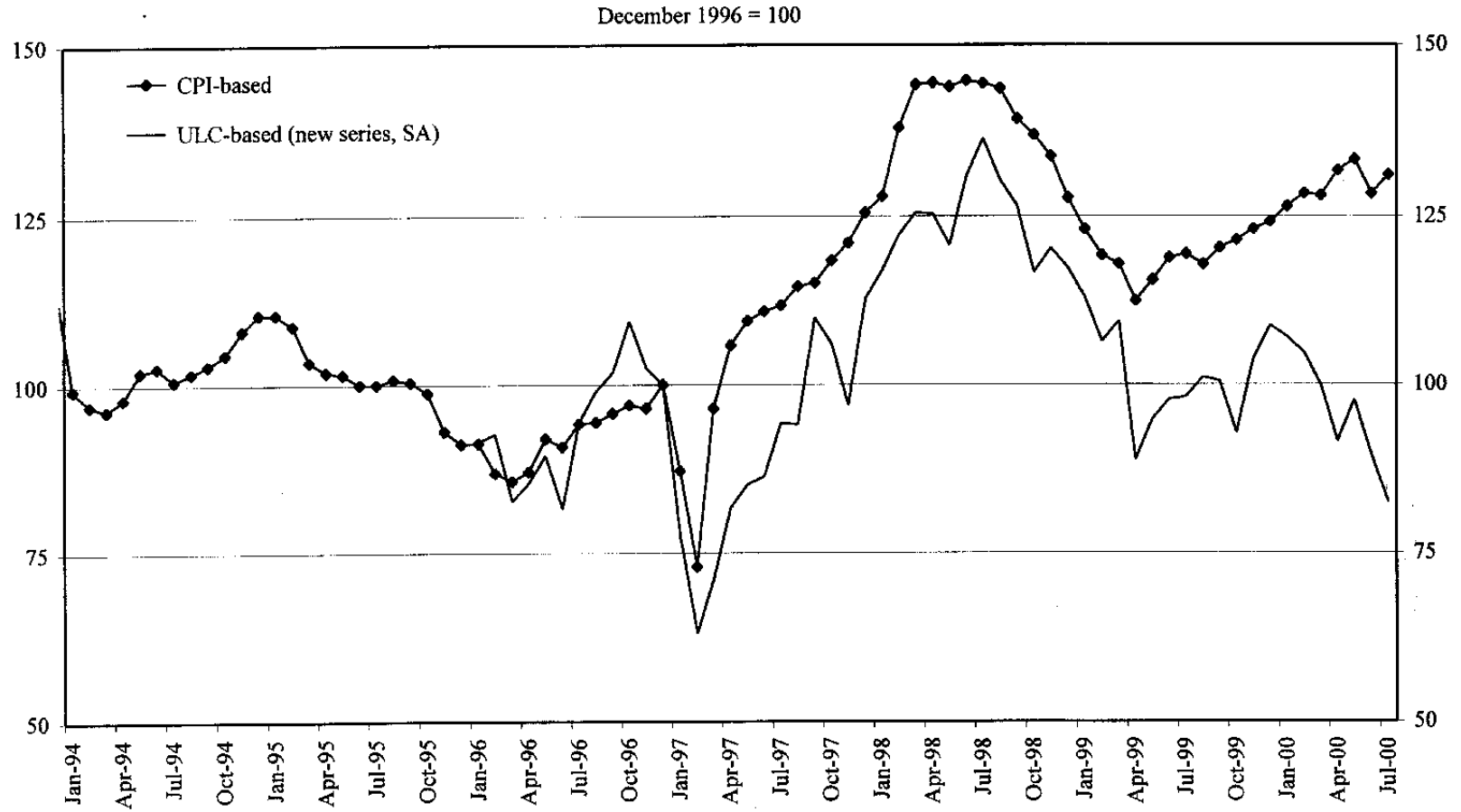
16. However, though the stock of debt was at manageable levels, it was growing quickly (Table V.2). In 1996 and again in 1997, the stock of debt increased by 25.3 and 10.1 percent in U.S. dollar terms respectively. In 1998, the growth rate slowed to 4.6 percent.

17. This section looks at three widely used competitiveness indicators: changes in the real exchange rate, the growth rate of exports, and the current account deficit. From March 1997 the real exchange rate began a rapid appreciation (Figure V.2), which was sustained until the onset of the balance of payments crisis in the third quarter of 1998. It is likely that some of

⁸ Strictly speaking, one should look at external debt net of external assets. However, limitations in the reporting of international investment positions make this difficult to do for a cross-section of countries. A commonly used approach is simply to look at gross external debt levels.

⁹ Another cross-country database was also used, the *Joint BIS-IMF-OECD-World Bank* database. Those results (not reported here) lead to the same qualitative conclusions.

Figure V.2. Romania: The Real Exchange Rate, 1994-2000



Sources: Romanian authorities and Fund staff estimates.

the initial appreciation corrected for an overshooting of the nominal exchange rate, which depreciated sharply in early 1997 as a result of the liberalization of the foreign exchange market. However, even compared to its level at end-1996 (prior to the liberalization), the appreciation of the real exchange rate in 1997 stands out in the cross-sectional analysis (Table V.6).^{10 11} Romania's real effective exchange rate appreciated by 16.5 percent, compared to the median appreciation of 5.4 percent. The contrast is even more striking in 1998 where the Romanian appreciation of 30 percent is more than double that of the second ranked Bulgaria, and more than ten times the median of 2.5 percent.

18. Much of the appreciation, particularly in 1997, was due to the one-off inflationary impact of the liberalization of prices and the foreign exchange market. While real wages most likely overcorrected immediately following the liberalization, the subsequent inflationary episode fueled wage demands, and by the end of 1997 wages, measured in U.S. dollar terms, had returned to their end-1996 level. They continued to rise in dollar terms through the first three quarters of 1998. However, at end-96 wage levels, Romanian costs were probably uncompetitive. Wages in dollar terms had increased since 1994, and the end-96 level was a further 16 percent higher than the average 1996 level.

19. It is unlikely that this wage growth was driven by productivity growth, causing the equilibrium real exchange rate to appreciate due to the Balassa-Samuelson effect. Real GDP growth was negative in both 1997 and 1998, led by declines in the output of large tradable sectors such as industry and agriculture. Moreover, much of the impetus for productivity growth in a transition economy such as Romania stems from economic restructuring of key sectors. Yet Romania's structural reform program had again become stalled by the end of 1997. Measuring the real exchange rate using unit labor costs shows the same trend appreciation (Figure V.2).

20. In addition, trends in imports and exports also lend support to the argument of Romania's weakening competitiveness. Despite the declines in real GDP, imports of goods and services remained constant in dollar terms in 1997, and actually grew by 4.9 percent in 1998, indicative of a dominant price effect. At the same time, export growth stalled. Though export volume growth rebounded somewhat in 1997 (due in part to the temporary improvement in competitiveness mentioned above), export growth was significantly lower in

¹⁰ Moreover, at end-96 the official exchange rate was most likely overvalued, as evidenced by a significant premium in the grey market rate, which averaged 12 percent over 1996. Following the liberalization, this fell to an average 1.5 percent in 1997 and 0.5 percent in 1998. Prior to the liberalization the Romanian authorities used the official exchange rate as a means to provide implicit subsidies to selected industries.

¹¹ Real effective exchange rates (REERs) are not calculated for Estonia, Latvia, Lithuania, and Turkey, and hence they are excluded from this cross-section. However, using the real exchange rates of these countries against either the US dollar or the Deutsche Mark would not change Romania's ranking. In 1997 and 1998, the highest appreciation was that of Estonia's currency against the U.S. dollar in 1997—6.7 percent.

both value and volume terms after 1995 (Figure V.3). Looking at the cross-sectional comparison shows Romania to be well in the lower half of the sample in both 1997 and 1998 (Table V.7).

21. Finally, the current account deficit remained large throughout this period, and widened considerably in 1998. Even compared to a cross-section which includes many transition countries, Romania's deficits were large (Table V.8). For Romania, it is more difficult to explain these large deficits with the argument of high investment during transition. Romania's real GDP was contracting over this period, while the average real GDP growth of the economies with larger deficits than Romania was 8.1 percent in 1997 and 4.6 percent in 1998. Moreover, with the exception of the Slovak republic, their debt-to-GDP ratios were also lower.

22. Based on the solvency indicators, several conclusions can be drawn. First, though Romania's indebtedness was relatively low, by 1998 its real exchange rate had become overvalued, and its current account deficit likely was unsustainable. Second, Romania's persistently large current account deficit left it particularly vulnerable to a sudden change in capital flows. In 1996 and 1997 Romania's current account had increasingly been financed by private sector creditors, raising Romania's exposure to changes in market sentiment.

Liquidity indicators

23. Liquidity indicators have received greater attention since the Asian crisis, when it became apparent that, with the increase in the volume of private international capital flows, even countries with strong macroeconomic fundamentals can be vulnerable to balance of payments crises resulting from sudden acute liquidity shortages. Moreover, some research on balance of payments crises suggests that high liquidity may, to a certain extent, be able to "offset" the increased vulnerability of a country due to weak fundamentals.¹² This section looks at a set of liquidity indicators for Romania to see if they may have sent offsetting or reinforcing signals to those of the solvency indicators.

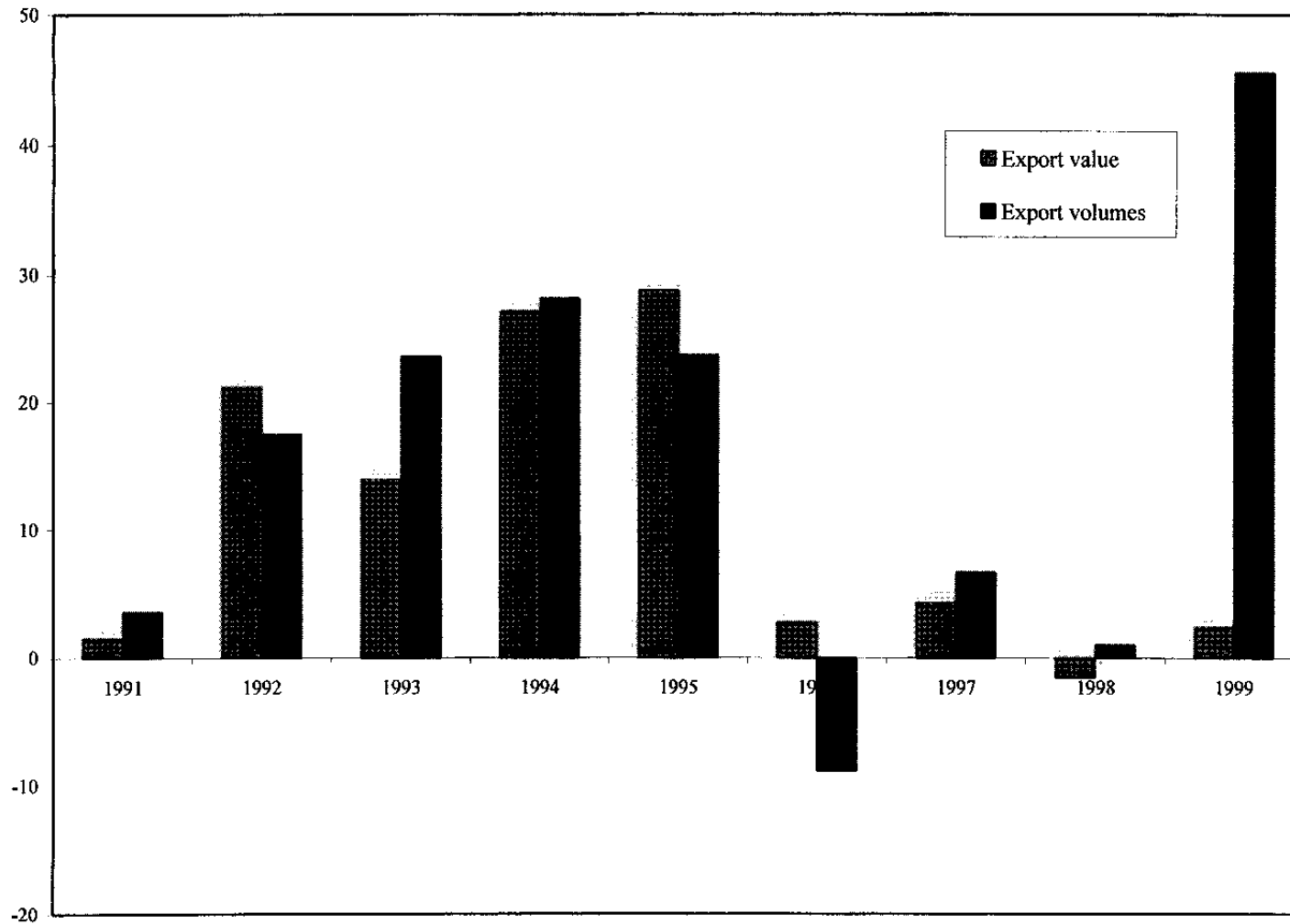
24. Reserves are the primary indicator of liquidity, and Tables V.9–V.11 present four different scale measures of reserves which are commonly found in the literature.¹³

- *Reserves-to-GDP (Table V.9):* With this scale variable Romania's reserve levels are in the lower half of the sample, in both 1997 and 1998. Using the PPP exchange rate to value GDP lowers Romania's ranking (Table V.10). By this measure, the only two countries in the sample with lower rankings are Russia and Ukraine.

¹² See, for example, Brüssière and Mulder (1999).

¹³ Reserve data is taken from the *International Financial Statistics*, line 11.d, which includes reserves of commercial banks as well as official reserves, and line 1 (gold reserves). For Romania, data on gold reserves is taken from the NBR's monetary survey.

Figure V.3. Romania: Export Growth Rates, 1991-99



Sources: Romanian authorities and Fund staff estimates.

- *Reserves-to-M2 (Table V.11)*: Though this is arguably a more relevant indicator for countries with fixed exchange rates, Romania's ranking is far higher than with GDP as the scale variable. Romania is ranked fourth in 1997 and seventh in 1998.
- *Reserves-to-Imports (Table V.12)*: Using the traditional scale variable of imports puts Romania's liquidity in the best light. In both years Romania is above the median, ranking third in 1997.

25. An alternative ratio, which several studies have found to perform well as an indicator of vulnerability, is reserves to short-term debt by remaining maturity.¹⁴ *Joint BIS-IMF-OECD-World Bank* (BIS) data is used for short-term debt. While this has the advantage of being a cross-country dataset, it understates short-term debt because it excludes debt to official creditors, which accounts for a significant proportion of the external obligations of these countries. As this ratio is sensitive to low values of short-term debt, a second measure is presented—the difference between reserves and short-term debt scaled by GDP.

- *Reserves-to-Short-term Debt (Table V.13)*: Again, by this measure of liquidity Romania is above the sample median in both years. However, Romania's ratio drops by more than 50 percent, from 370 to 173 percent, between end-1997 and end-1998.
- *Reserves less Short-term Debt-to-GDP (Table V.14)*: This measure gives a similar picture, though Romania ratio drops below the sample median in 1998. Again, the drop in the ratio, from 9.7 to 3.9 percent, is large.¹⁵

26. Looking at the cross-section comparison of liquidity indicators, though Romania's liquidity was not particularly high, neither does it stand out as particularly vulnerable. This is in large part due to the substantial increase in gross reserves in 1997, which partially offset the increase in vulnerability due to weakening competitiveness. However, the levels of reserves with respect to short-term debt are overstated by the BIS data, which excludes official creditor debt. Reserves to *total* short-term debt were significantly lower for Romania—for example, at end-1997 it was 183 percent (compared to 370 percent using BIS data). Official reserves were lower still at 118 percent of short-term debt at end-1997.

27. However, it is the decline in liquidity, rather than its level, which best signaled Romania's vulnerability. This decline is reflected in all of the indicators. For example, the drop in the ratio of reserves less short-term debt-to-GDP from end-1997 to end-1998 was the largest in the sample. This was due to declining reserve levels in 1998, and for the relevant indicators, a rise in short-term debt. For the latter indicators, this trend was clearly evident by

¹⁴ See for example, Brüssière and Mulder (1999).

¹⁵ An alternative formulation is to subtract both short-term debt and the current account deficit from reserves. This was performed for the sample using the realized current account deficit in the year of measurement. This gave very similar results to those excluding the current account deficit.

the second quarter of 1998. Looking just at official reserves, by end-1997 the reserves to short term debt ratio began to fall (Table V.15). By the second quarter of 1998, the ratio of official reserves to short-term debt fell below 100 percent.¹⁶ Moreover, the large increase in short-term debt in the second quarter of 1998 was due to bullet repayments on bonds contracted by the government in 1996, and thus was an identified source of pressure on liquidity well before it was captured by the vulnerability indicators.

28. Difficulties in the banking sector began in 1997, with two large state-owned banks insolvent (see Chapter IV). Though this occurred close to the time of the balance of payments crisis, there is no strong evidence that a crisis of confidence in the banking system triggered a crisis of confidence in the currency, a linkage emphasized in the literature.¹⁷ Although there were several years of strong real credit growth to the non-government sector which certainly deteriorated the banks' balance sheets, that credit growth was not driven by capital inflows nor did it immediately precede the balance of payments crisis.¹⁸ In 1997, there were signs of a crisis in the banking system: real credit to the non-government sector fell by 47 percent, real lei deposits declined by 21 percent while foreign currency deposits grew by 25 percent in U.S. dollar terms. However, at the same time exchange market pressure was not relatively intense, capital inflows were high, and gross foreign reserves were building. Conversely, both credit to the non-government sector and M2 increased as a percent of GDP in 1998 and 1999, at the same time exchange market pressure was intensifying.

29. Nevertheless, the problems in the banking sector certainly put additional pressure on the exchange market. Having to rescue the failed banks complicated the implementation of monetary policy. Moreover, many of the liabilities in one of the failed banks, Bancorex, were foreign currency denominated. As most of its foreign currency assets were nonperforming, servicing these liabilities implied net pressure on the currency. In addition, foreign currency liabilities—for which Bancorex did not have matching liquid foreign currency assets—were withdrawn in the first six months of 1999.

¹⁶ At that point, official reserves were not sufficient to cover all amortization payments falling due over the next year. Alan Greenspan (1999) and Pablo Guidiotti have put forward a reserve coverage of one hundred percent short-term debt as a rule of thumb.

¹⁷ Several papers in the literature focus on the links between balance of payments crises and banking crises. Sustained capital inflows can fuel a boom in bank-intermediated credit driven by capital inflows which, after an extended period, can lead to a weakening of banks' balance sheets (particularly in the financial sector is newly liberalized). This can result in a simultaneous loss of confidence in both the banking sector and the currency. See for example, Goldfajn and Valdes (1997), Kaminsky and Reinhart (1996) and Sachs, Tornell and Velasco (1995).

¹⁸ Strong private sector credit growth—often interpreted as a signal of weakening bank balance sheets, and thus, of greater vulnerability—occurred in 1994 and 1995. With significantly lower growth rates in 1997 and 1998 (Table V.2), this indicator did not signal strongly. Nevertheless, the fragility of the banking sector was well-known.

30. To conclude this section, a “fitted” vulnerability index is calculated using parameters from a crisis index equation estimated by Brussi re and Mulder (1999). Column 2 of Table V.1 reproduces their rankings of vulnerability during the Russian crisis in 1998.¹⁹ Romania’s fitted index value is 20.6, which would rank it 9th out of 23 in the sample. This measure reinforces the view that by mid-1998, Romania’s indicators showed it to be comparatively vulnerable to a crisis, even in a broader cross-section of emerging market economies.²⁰ Moreover, given that it uses variables measured up to June 1998—six months before the crisis in Romania—it also lends some support to the view that measures of real exchange rate appreciation and short-term debt to reserves may be able to serve to some extent as leading indicators.

C. Romania’s Future Vulnerability

31. The indicators at end-1999 show that Romania’s vulnerability to a balance of payments crisis has lessened. The current account deficit shrunk dramatically in 1999, to a more sustainable level than in either 1997 or 1998. Moreover, though export prices (in U.S. dollars) sagged, export volume growth rebounded in 1999 with an annual growth rate of 46 percent, the majority of which occurred in the second half of the year (Figure V.3). This improvement in fundamentals is reflected in Romania’s solvency indicators in 1999 (Tables .3–V.8). Romania’s ranking for all three competitiveness indicators improved markedly over 1997 and 1998.²¹

32. By contrast, the liquidity indicators (Tables V.9–V.14) in 1999 show little change from their levels in both 1997 and 1998. However, this reflects a considerable rebuilding of reserves in the latter half of 1999 following their equally considerable depletion in the first half of the year (see, for example, the quarterly path of official reserves in Table V.15). Moreover, Romania has continued to rebuild reserves thus far in 2000. As of end-September 2000, they stood at US\$4.5 billion dollars, an increase of over 22 percent since end-December.

33. Despite these improvements, further steps to lessen Romania’s vulnerability to balance of payments crises in the medium term would be beneficial. As Romania’s economy continues to develop and restructure, its increased attractiveness to foreign investors will raise the possibility of a resurgence of capital inflows. For now, Romania’s partially liberalized capital account may provide some protection. However, as Romania further

¹⁹ Brussi re and Mulder (1999) used a parsimonious specification based on three independent variables—real exchange rate appreciation, the current account deficit, and the ratio of reserves to short-term debt. The fitted index for Romania was calculated using the parameter estimates reported in column 6 of Table V.6 in their paper.

²⁰ The short-term debt data used excludes Romania’s large bond repayments due in 1999, suggesting that Romania’s ranking may be underestimated.

²¹ WDI debt data is not yet available for 1999.

integrates with global capital markets over the medium-term, strong macroeconomic fundamentals and higher reserve levels will be important means of mitigating the impact of a potential surge in capital inflows.

34. In the near term, this will require addressing some key structural weaknesses that are potential risks to external stability:

- *Excessive wage growth:* Real wage growth in excess of productivity growth poses the risk of a potential erosion of Romania's competitiveness, and a corresponding return to wider, less sustainable, current account deficits. In Romania's current environment disinflation will depend on controlling wage growth. Until wage growth subsides, disinflation objectives will have to be carefully weighed against the objective of preserving external competitiveness.
- *Banking system soundness:* Although significant gains were made over this period in strengthening Romania's banking system, the system remains fragile. Effective supervision will be essential to ensure that banks' balance sheets do not deteriorate as credit growth picks up. Another potential source of risk is open foreign positions of commercial banks. Although there are prudential regulations governing these positions, they are not based on international definitions, and have not been tightly enforced in the past, in part due to uncertainty surrounding the definitions used. The scope for running large net (unhedged) open positions and the fragility of the banking system imply that there is the potential for crises in the foreign exchange market and in the banking system to coincide and be mutually reinforcing.
- *Fiscal stability:* Containing the fiscal deficit will be important to maintaining the current account deficit at sustainable levels, and greater flexibility to adjust the fiscal stance quickly may be necessary to facilitate an appropriate policy response to a potential resurgence in capital inflows. This will require, *inter alia*, addressing some of the remaining risks to fiscal stability (see Chapter II).
- *Data weaknesses:* Data availability is a critical component of crisis prevention. At present, there are some important gaps in coverage in external sector data, as evidenced by persistently large net errors and omissions. The authorities are planning to take steps to reduce these gaps. An objective should be the adoption of the Fund's General Data Dissemination Standard (GDDS).

D. Conclusions

35. Romania underwent a period of exchange market pressure from September 1998 through to June 1999 sufficiently intense to be classified as a balance of payments crisis. The crisis was due both to misaligned fundamentals, in particular an overvalued exchange rate, as well as to a shortage of liquidity. External vulnerability indicators were clearly signaling Romania's heightened vulnerability to such a crisis by June 1998, though some signs were beginning to show as early as the end of 1997. The most important of these indicators were the appreciation of the real exchange rate, the current account deficit, and by the middle of 1998, the increase in the ratio of short-term debt to reserves.

36. In view of the worsening external situation the authorities took necessary corrective action which likely averted a worse crisis. However, at the time the authorities responded, the scope for a more gradual approach was very limited. Such an approach may have been feasible earlier.

37. Indicators at the end of 1999 point to considerably lessened external vulnerability. Moreover, Romania's reserves have continued to increase thus far in 2000. Despite this improvement, further steps to lessen Romania's vulnerability would be beneficial. In the near term, this would include steps to control excessive wage growth, strengthen the banking system, reduce risks to the fiscal balance, and improve external data coverage.

Table V.1: Ranking of Most Vulnerable Countries to 1998 Russia Crisis 1/

Actual Crisis Index for 1998 CrisindGLD			Fitted Crisis Index with EWS Actual Rank (2)		
1	87.2	Russia	1	68.9	Zimbabwe
2	82.2	Zimbabwe	2	53.7	Russia
3	32.4	Brazil	3	35.4	Pakistan
4	13.8	Colombia	4	29.7	Argentina
5	13.2	Mexico	5	26.4	Brazil
6	11.3	Romania	6	23.1	Colombia
7	8.6	Turkey	7	23.1	Peru
8	4.3	Peru	8	23.0	Venezuela
9	2.4	Philippines	9	20.6	Romania
10	1.5	Sri Lanka	10	19.8	Philippines
11	0.2	Jordan	11	19.6	Turkey
12	0.1	Pakistan	12	19.1	Chile
13	-0.3	Hungary	13	16.4	South Africa
14	-0.7	Chile	14	11.6	Mexico
15	-0.9	Poland	15	11.6	Thailand
16	-0.9	Venezuela	16	7.4	Indonesia
17	-0.9	Argentina	17	7.1	Poland
18	-2.1	India	18	5.2	Hungary
19	-3.4	Korea	19	3.1	Korea
20	-6.7	South Africa	20	1.5	Malaysia
21	-7.1	Thailand	21	-0.6	Sri Lanka
22	-9.8	Malaysia	22	-4.7	Jordan
23	-16.7	Indonesia	23	-6.5	India

1/ All results, except for Romania, are from Brusière and Mulder (1999), Table 7.

Table V.2. Romania: Indicators of External Vulnerability 1996-2000 1/
(In percent of GDP unless otherwise specified)

	1996	1997	1998	1999	2000 Proj.
Financial indicators					
Public sector debt	23.5	25.5	25.6	30.5	28.2
Broad money (percent change, 12-month basis)	66.1	104.8	48.9	44.9	28.6
Private sector credit (percent change, 12-month basis) 2/	63.3	33.7	64.7	46.5	21.8
Real private sector credit (percent change, 12-month basis) 2/	4.2	-46.9	17.0	-5.4	...
Monthly weighted average t-bill rate	...	133.5	57.9	99.9	52.5 4/
Monthly weighted average real t-bill rate 3/	...	32.1	4.0	44.4	7.1 4/
External Indicators					
Exports (percent change, 12-month basis in US\$)	2.3	4.6	-1.6	2.4	16.7
Imports (percent change, 12-month basis in US\$)	11.3	-1.4	4.8	-12.1	18.4
Terms of Trade (percent change, 12-month basis)	-2.4	-0.3	0.0	0.2	-6.1
Current account balance	-7.4	-6.1	-7.5	-3.8	-4.3
Current account balance after FDI	-6.7	-2.7	-2.6	-0.8	-1.5
Errors and omissions	2.2	3.1	1.7	1.8	2.4
Gross official reserves (in US\$ millions)	1,593	3,075	2,299	2,472	3,112
(in months of imports GS of the following year)	1.5	2.9	2.4	2.2	2.5
Central Bank short-term foreign liabilities (in US\$ millions)	0	100	0	170	100
Gross reserves of the banking system (in US\$ millions)	3,145	4,763	3,789	3,633	4,491
(in months of imports GS of the following year)	3.0	4.4	4.0	3.2	3.7
Short term foreign liabilities of the commercial banks (in US\$)	602	267	188	240	221
Foreign currency liabilities of the commercial banks (in US\$)	362	383	401	881	818
Official reserves/Broad money (M2)	19.7	39.5	27.2	23.7	40.8
Official reserves/Narrow money (M0)	49.9	237.7	107.1	102.5	143.4
Total short term external debt by original maturity	2.9	2.5	1.4	1.0	...
In percent of reserves	64.5	28.7	24.4	14.1	23.7
In percent of total debt	11.9	9.3	5.7	4.0	7.9
Total short term external debt by remaining maturity 5/	7.4	7.4	7.0	5.6	8.3
In percent of reserves	163.8	84.6	126.8	77.3	96.3
In percent of total debt	28.5	27.4	29.6	23.7	32.1
Total external debt (in US\$ millions)	8,597	9,467	9,903	8,784	9,347
Of which: Public and Publicly guaranteed debt	6,507	6,855	7,001	6,169	6,936
Total external debt (in percent of exports of G&S)	88.7	93.4	101.3	87.7	79.5
Total external debt/ GDP	24.5	26.9	23.9	25.7	26.0
External interest payments (in percent of exports of G&S)	3.7	5.0	6.0	5.1	5.1
External amortization payments (in percent of exports of G&S)	9.9	15.9	18.0	23.6	13.5
Exchange rate (per US\$, period average)	3,084	7,195	8,881	15,274	...
REER appreciation (+) (12-month basis)	-9.6	16.5	30.0	-14.9	...
Financial Market Indicators					
Foreign currency debt ratings					
Moody's	Ba3	Ba3	B3	B3	B3 6/
Standard and Poor's	BB-	BB-	B-	B-	B- 6/
Spread of benchmark bonds (basis points, end of period)	364	350	1,300	780	562 7/

Sources: Romanian authorities; and Fund staff estimates.

1/ All stocks are measured end-of-period.

2/ Adjusted for bad loans transferred to AVAB.

3/ Real rate is based on ex-post CPI inflation.

4/ As of June 2000.

5/ Defined as short-term debt by original maturity basis plus amortization falling due on medium-term loans and bonds.

6/ As of October 20, 2000.

7/ As of October 17, 2000.

Table V.3: External Debt (In percent of GDP), 1997-98

	1997		1998	
		Rank		Rank
BULGARIA	97.2	12	80.8	12
CZECH REPUBLIC	43.8	8	45.4	7
ESTONIA	13.9	2	15.0	2
HUNGARY	53.6	11	60.8	10
LATVIA	8.9	1	12.4	1
LITHUANIA	16.0	3	18.1	3
POLAND	28.2	6	30.3	5
ROMANIA	27.0	5	22.9	4
RUSSIA	28.9	7	66.1	11
SLOVAK REPUBLIC	46.0	9	48.6	8
TURKEY	47.8	10	50.8	9
UKRAINE	25.5	4	30.4	6

Source: International Financial Statistics and World Development indicators.

Table V.4: External Debt (In percent of GDP; (PPP valuation), 1997-98

	1997		1998	
		Rank		Rank
BULGARIA	25.0	12	24.0	10
CZECH REPUBLIC	16.9	8	18.7	8
ESTONIA	5.9	2	6.8	2
HUNGARY	24.2	11	26.6	12
LATVIA	3.7	1	5.3	1
LITHUANIA	6.6	3	7.9	5
POLAND	13.2	7	14.7	6
ROMANIA	6.7	5	7.2	3
RUSSIA	12.7	6	19.1	9
SLOVAK REPUBLIC	17.5	9	18.3	7
TURKEY	22.9	10	24.6	11
UKRAINE	6.6	4	7.6	4

Source: International Financial Statistics and World Development indicators.

Table V.5: External Debt , 1997-98
(In percent of exports of goods and services)

	1997		1998	
		Rank		Rank
BULGARIA	151.7	11	167.7	10
CZECH REPUBLIC	77.3	6	74.8	5
ESTONIA	18.7	2	19.9	1
HUNGARY	99.9	8	100.8	8
LATVIA	16.8	1	24.0	2
LITHUANIA	29.3	3	38.5	3
POLAND	130.5	10	141.1	9
ROMANIA	95.3	7	100.1	7
RUSSIA	122.2	9	210.4	12
SLOVAK REPUBLIC	75.8	5	76.0	6
TURKEY	183.9	12	196.2	11
UKRAINE	54.5	4	72.2	4

Source: International Financial Statistics and World Development indicators.

Table V.6. Annual REER Depreciation, 1997-99

	1997		1998		1999	
		Rank		Rank		Rank
BULGARIA	19.2	8	13.3	7	1.5	7
CZECH REPUBLIC	0.7	1	8.2	6	-1.3	6
HUNGARY	5.1	4	-0.6	4	1.9	8
POLAND	2.4	2	5.6	5	-4.6	3
ROMANIA	16.5	7	30.0	8	-14.9	2
RUSSIA	5.6	5	-11.5	1	-29.1	1
SLOVAK REPUBLIC	5.0	3	-2.2	3	-2.3	5
UKRAINE	13.3	6	-2.4	2	-2.9	4

Source: International Financial Statistics.

Table V.7. Growth of Exports of Goods and Services, 1997-98

	1997		1998		1999	
		Rank		Rank		Rank
BULGARIA	1.4	9	-9.1	10	-13.0	10
CZECH REPUBLIC	0.2	11	13.0	3	-0.2	5
ESTONIA	18.3	3	14.0	2	16.7	1
HUNGARY	27.8	1	15.6	1	14.9	2
LATVIA	6.6	7	4.7	7	9.7	3
LITHUANIA	24.1	2	-2.9	8	-16.4	12
POLAND	11.2	5	9.2	5	-12.3	9
ROMANIA	3.3	8	-4.4	9	3.8	4
RUSSIA	0.4	10	-15.4	12	-3.3	6
SLOVAK REPUBLIC	8.3	6	10.2	4	-6.3	7
TURKEY	13.9	4	5.0	6	-14.4	11
UKRAINE	0.0	12	-13.4	11	-7.9	8

Sources: International Financial Statistics and World Development indicators.

Table V.8. Current Account Balance, 1997-99
(In percent of GDP)

	1997		1998		1999	
		Rank		Rank		Rank
BULGARIA	4.4	1	-0.5	3	-5.4	7
CZECH REPUBLIC	-6.1	8	-2.4	4	-2.0	4
ESTONIA	-12.1	12	-9.2	9	-6.1	9
HUNGARY	-2.1	4	-4.9	7	-4.3	6
LATVIA	-5.1	7	-10.1	10	-9.7	11
LITHUANIA	-10.2	11	-12.1	12	-11.2	12
POLAND	-3.0	5	-4.4	6	-7.5	10
ROMANIA	-6.1	9	-7.2	8	-3.8	5
RUSSIA	0.6	2	0.4	2	11.3	1
SLOVAK REPUBLIC	-10.1	10	-10.4	11	-5.7	8
TURKEY	-1.4	3	1.0	1	-0.7	3
UKRAINE	-3.1	6	-3.1	5	-0.1	2

Source: International Financial Statistics.

Table V. 9. Reserves, 1997-99
(In percent of GDP)

	1997		1998		1999	
		Rank		Rank		Rank
BULGARIA	25.0	1	25.5	1	26.3	1
CZECH REPUBLIC	18.5	2	22.5	2	24.2	2
ESTONIA	16.4	5	15.6	5	16.7	5
HUNGARY	18.4	3	19.9	3	22.7	3
LATVIA	13.8	7	13.2	8	14.6	7
LITHUANIA	11.1	9	13.6	7	11.7	9
POLAND	14.4	6	17.4	4	16.5	6
ROMANIA	13.3	8	9.1	10	10.7	10
RUSSIA	4.1	12	4.4	11	6.7	11
SLOVAK REPUBLIC	17.0	4	14.4	6	18.2	4
TURKEY	10.5	10	10.3	9	13.1	8
UKRAINE	5.4	11	1.9	12	3.6	12

Source: International Financial Statistics.

Table V.10. Reserves, 1997-99
(In percent of GDP; PPP valuation)

	1997		1998		1999	
		Rank		Rank		Rank
BULGARIA	6.4	6	7.6	4	7.9	3
CZECH REPUBLIC	7.1	2	9.3	1	9.3	2
ESTONIA	6.9	3	7.0	5	7.3	5
HUNGARY	8.4	1	8.7	2	9.7	1
LATVIA	5.8	7	5.7	7	6.2	6
LITHUANIA	4.6	9	5.9	6	4.9	9
POLAND	6.7	4	8.4	3	7.4	4
ROMANIA	3.3	10	2.9	10	2.8	10
RUSSIA	1.8	11	1.3	11	1.2	11
SLOVAK REPUBLIC	6.5	5	5.4	8	6.2	7
TURKEY	5.0	8	5.0	9	5.7	8
UKRAINE	1.4	12	0.5	12	0.7	12

Source: International Financial Statistics.

Table V.11. Reserves, 1997-99
(In percent of M2)

	1997		1998		1999	
		Rank		Rank		Rank
BULGARIA	77.1	1	89.1	1	88.9	1
CZECH REPUBLIC	26.4	10	33.4	8	35.6	8
ESTONIA	54.1	3	55.0	3	48.4	5
HUNGARY	44.7	6	43.7	5	49.1	4
LATVIA	50.3	5	49.5	4	51.4	3
LITHUANIA	58.5	2	70.1	2	55.4	2
POLAND	38.4	7	43.1	6	38.4	7
ROMANIA	53.9	4	36.4	7	41.8	6
RUSSIA	22.5	12	18.9	11	31.1	9
SLOVAK REPUBLIC	24.9	11	22.1	10	27.2	10
TURKEY	28.2	9	26.3	9	25.1	11
UKRAINE	35.0	8	12.7	12	20.9	12

Source: International Financial Statistics.

Table V.12. Reserves, 1997-99
(In percent of imports of goods and services)

	1997		1998		1999	
		Rank		Rank		Rank
BULGARIA	40.4	2	50.3	2	55.7	2
CZECH REPUBLIC	29.9	6	36.3	4	37.1	4
ESTONIA	19.1	10	18.2	10	17.2	11
HUNGARY	33.7	5	31.4	5	32.3	5
LATVIA	23.0	8	21.1	8	22.3	10
LITHUANIA	17.0	11	23.0	7	23.3	9
POLAND	49.3	1	57.0	1	55.8	1
ROMANIA	37.8	3	30.0	6	32.2	6
RUSSIA	19.7	9	16.5	11	23.8	8
SLOVAK REPUBLIC	23.9	7	19.1	9	26.1	7
TURKEY	35.4	4	37.3	3	50.0	3
UKRAINE	10.8	12	4.2	12	6.8	12

Source: International Financial Statistics.

Table V.13. Reserves, 1997-99
(In percent of short-term debt)

	1997		1998		1999	
		Rank		Rank		Rank
BULGARIA	339.4	5	668.2	1	924.9	1
CZECH REPUBLIC	178.5	6	161.6	6	244.1	5
ESTONIA	174.3	7	156.6	7	67.0	12
HUNGARY	148.9	9	121.3	8	162.1	8
LATVIA	1341.5	1	428.3	3	378.7	2
LITHUANIA	685.6	2	368.7	4	196.5	6
POLAND	573.2	3	434.9	2	368.0	3
ROMANIA	370.7	4	172.8	5	294.4	4
RUSSIA	54.8	12	68.0	12	105.9	10
SLOVAK REPUBLIC	148.4	10	114.3	9	175.5	7
TURKEY	102.2	11	91.6	11	104.8	11
UKRAINE	159.9	8	113.9	10	120.2	9

Source: International Financial Statistics and BIS debt data.

Table V.14: Reserves, 1997-99
(Less short-term debt in percent of GDP)

	1997		1998		1999	
		Rank		Rank		Rank
BULGARIA	17.7	1	21.7	1	23.5	1
CZECH REPUBLIC	8.2	6	8.6	5	14.3	2
ESTONIA	7.0	7	5.6	6	-8.2	12
HUNGARY	6.1	8	3.5	8	8.7	5
LATVIA	12.8	2	10.1	3	10.7	4
LITHUANIA	9.5	5	9.9	4	5.7	8
POLAND	11.9	3	13.4	2	12.0	3
ROMANIA	9.7	4	3.9	7	7.1	7
RUSSIA	-3.4	12	-2.1	12	0.4	11
SLOVAK REPUBLIC	5.5	9	1.8	9	7.8	6
TURKEY	0.2	11	-0.9	11	0.6	9
UKRAINE	2.0	10	0.2	10	0.6	10

Sources: International Financial Statistics and BIS.

Table V.15. Gross Official Reserves, 1997-99

	1997				1998				1999			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Gross Reserves of the NBR (in US\$ million)	2,898	2,620	2,448	2,601	2,628	3,295	3,189	2,916	2,212	1,580	1,630	1,911
In percent of short-term debt	55.4	100.0	131.7	118.2	112.8	92.1	88.5	78.8	95.2	97.1	143.3	130.4

Sources: Romanian authorities; and Fund staff estimates

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VI. PAVING THE WAY TO EU ACCESSION: THE ECONOMIC AND FINANCIAL DIMENSION IN ROMANIA ¹

A. Introduction

1. The historic decision adopted by EU member countries at their Helsinki meeting in December 1999 to include Romania in the group of countries that are EU accession candidates signifies that Romania has moved to a new stage of its European integration process.² The accession process provides an important impetus for the acceleration of much-needed reforms in Romania. Admittedly, with or without EU membership, most of the EU membership requirements (market liberalization and increased competitiveness) are necessary for long-term growth—but the EU accession process brings further opportunities as well as greater challenges to Romania and the other candidate countries. Eventual EU membership should improve long-term development prospects by providing access to a large single market and allowing free movement of goods, services, capital and people within the market. In the context of Romania's candidacy for EU membership, this chapter (a) briefly reviews the economic and financial implications, and (b) assesses Romania's compliance with EU economic criteria.³

2. The economics of EU accession is predicated on the assumption that incomes and living standards should converge toward EU standards. Economic integration is to be facilitated by bringing new opportunities for trade, and, as the economic environment becomes more attractive, by increasing foreign direct investment inflows. To this end, the "Europe Agreement" with the European Union provides Romania with easier access to EU

¹ This chapter was prepared by Stephane Cosse.

² In Eastern and Central Europe, Slovenia, the Czech Republic, Hungary, Poland and Estonia were chosen as the first group of candidate countries, the so-called "front runners," in 1998. Latvia, Lithuania, Slovakia, Bulgaria, and Romania were invited to start EU accession negotiations in Helsinki.

³ There are four accession criteria. Three of them were set in the Copenhagen European Council (1993):

- political criteria: "*achieve stability of institutions guaranteeing democracy, the rule of law, human rights and respect for and protection of minorities*";
- economic criteria: "*the existence of a functional market economy as well as the capacity to cope with competitive pressure and market forces within the Union*";
- the ability to assume the obligations of membership (adoption of the *acquis*).

More recently, EU member countries have extended their requirements to the existence of an administrative and judicial capacity to apply the *acquis*.

markets, while the use of nonreimbursable resources provided by the EU (through the pre-accession instruments) would support investment-based growth. Harmonization of policies and regulations toward the *acquis communautaire* will in parallel gradually facilitate the circulation of goods, services, capital, and labor, and the entry into the single market.⁴

3. In aiming at converging to the EU's living standards, Romania faces a daunting task. Closing the income gap with the EU will require that Romania raise its real GDP growth to rates that it has never attained so far. On a per capita basis, Romania has the second lowest income level after Bulgaria among the candidate countries. Moreover, the level of the population below the standard poverty lines is by far the highest in Romania (Table VI.1). Tang (2000) notes that, assuming an average real growth rate of 5 percent per annum and an EU average growth rate of 2 percent per annum, it would take 45 years to close the gap. Romania would need to grow annually by 7 percent to catch up with the EU in 2025.⁵

4. The European Commission has specified the following prerequisites before Romania can pave a solid way to EU accession. First, macroeconomic stability, without which there cannot be sustainable growth, is essential.⁶ The transition experiences in neighboring Central European countries clearly show that a recovery in growth was achieved only after the economy had been stabilized and inflation had been brought down substantially.⁷ With an

⁴ The negotiations for Romania's accession to the EU were formally launched in February 2000. Negotiations with Romania have effectively started by opening 5 of the 31 chapters: small and medium-sized enterprises, education, training and youth, science and research, external relations, and common foreign and security policy. The *acquis* included in these chapters has been accepted provisionally in its entirety in May, with no derogation being requested. One should note the low complexity of the *acquis* in these chapters, and the high degree of conformity between the Romanian situation and the demands of the *acquis*. In October 2000, two new chapters were opened: audio-visual and statistics (the latter was provisionally closed, given Romania's compliance with EU norms). Two other chapters—competition and telecommunications—are expected to be opened by the end of the year.

⁵ In 1998, only two candidate countries had per capita incomes (on a purchasing power parity basis) that exceeded 50 percent of the EU average. These are Slovenia and the Czech Republic, which had per capita incomes of around two-thirds and around 60 percent of the EU average, respectively. Hungary's per capita income in 1998 was about half that of the EU average, while the rest of candidate countries recorded lower averages. The difference in the structure of household consumption is also revealing: Romanian households spend more than 58 percent of their budget on food, compared with only 17 percent in EU countries.

⁶ The key importance of macroeconomic stability is in particular stated in the second regular report of the Commission on progress toward EU accession (October 13, 1999). The Commission has proposed to make the opening of negotiations with Romania “*conditional upon a further assessment of the economic situation, in the expectation that appropriate measures will have been taken to address the macro-economic situation.*”

⁷ See Fischer (1998).

economic growth rate since 1990 among the lowest in the group of candidate countries, and an inflation rate among the highest, Romania is lagging behind, thereby undermining its chances of acceding to the Union at the same time as more advanced candidates.⁸ Second, the reform effort in structural areas must be pursued, as a means of enhancing economic efficiency and supporting the stabilization effort.⁹ Third, there is a need for a broad national consensus on economic policies in support of EU accession (see Box VI.1).

5. As elaborated in the remainder of this chapter, the EU's invitation to accession negotiations entails (a) access to sizable external resources through pre-accession instruments; and (b) requirements on economic policies, with a view to ensuring nominal and real convergence.

B. The Impact of EU Transfers on the Romanian Economy

A privileged share of EU pre-accession aid

6. In order to help candidate countries meet the accession criteria, the EU has set up three types of pre-accession aid instruments (see Box VI.2). In addition to the existing PHARE programs, two other grant instruments have been established: SAPARD (Structural Adhesion Program for Agriculture and Rural Development) and ISPA (Pre-Adhesion Structural Instrument). Within the framework of the Agenda 2000 (the budgetary envelope allocated by the European Union to the Commission over the period 2000-2006), total disbursements on these instruments are foreseen to amount to €10.5 billion. In a full year, provided that all projected tranches funded through the pre-accession instruments are disbursed, the amount of transfers from the EU to Romania would reach €630 million, or about 2 percent of GDP. It would represent, in 2000, 6 percent of government primary spending under the budget, and 25 percent of investment expenditure. By comparison, total EU assistance to the country during 1990-99, amounted to €1.2 billion (Figure VI.1). Of the 10 candidate countries from central and eastern Europe eligible for support under these three financing instruments, Romania ranks second after Poland in terms of volume of annual budgeted allocation, second after Bulgaria on a GDP comparison and fifth, after the Baltic States and Bulgaria, on a per capita comparison (Table VI.2).

⁸ Notwithstanding the European Council's decision, the Conclusions of the Presidency of the European Council in December 1999 stated that: "*it emerges that some candidates will not be in a position to meet all the Copenhagen criteria in the medium term.*"

⁹ Havrylyshyn (1999) shows—in part on the basis of the fallout from the financial crisis in Russia of August 1998—that lasting stabilization and recovery is never assured so long as the process of structural and governance reforms is not finished.

Box VI.1. National Consensus Vis-à-Vis a Market Economy and European Integration

In Romania, policy formulation and implementation has been undermined by disagreements within, and by the fragility of, the multi-party governing coalitions. In the wake of the European Council's decision in Helsinki, Romanian political parties initiated a dialogue from which emerged a broad consensus about the essentials of economic policy over the medium term. More generally, representatives of the civil society expressed their willingness to undertake the necessary policies to meet the economic criteria set for EU accession, including the full acceptance of the principles of a market economy.

In March 2000, the main political parties, in association with the trade unions, employers' associations and other representatives of the civil society (including churches), elaborated Romania's Medium-Term Economic Strategy (MTES), which called for the creation of a "*smooth-functioning market economy compatible with EU principles, norms, mechanisms, institutions and policies,*" together with a macroeconomic scenario underlying the economic strategy. Four broad intermediate objectives were identified: (1) the clarification of ownership rights; (2) the adoption of the missing economic regulations to fill existing legal gap and inconsistencies; (3) the improvement in financial discipline; and (4) the reduction of the informal sector. The document was fleshed out in May 2000 by an Action Plan adopted by the Government in order to ensure implementation of the MTES. The Action Plan lists economic and structural measures that the government intends to undertake in the period 2000-2004. The Commission considered that "*the sustained implementation of the MTES and the Action Plan would allow Romania to not only improve the living standards of the Romanian population but also to improve its chances of meeting the Copenhagen criteria for accession to the EU.*" In addition, the National Programme for Accession to the European Union updated every year, is to ensure the continuation of the process of building up a functional market economy. The European Commission adopted formally a communication on Romania's MTES on July 19, 2000 through a communication to the Council; the Action Plan was valued as it addresses "*the pressing issues of economic reform in a constructive and realistic manner and is coherent with other international commitments in the area of economic policies, in particular the International Monetary Fund's stand-by arrangement and the World Bank's Structural Adjustment Loans*". The Commission mentioned that it would closely monitor implementation of the plan by setting up two independent monitoring groups, one in Romania, one internationally, in close cooperation with the international financial institutions.

To prove its determination, the Romanian Government, with the support of all political parties, also unilaterally set January 1, 2007 as the date when Romania should be ready to become a member of the European Union. The date takes into consideration:

- a. The pace of negotiation. The Government of Romania would like to maintain the negotiation process at a sustained pace so as to keep the efforts and the attention of the decision makers, the administration, and public opinion, both in Romania and in the European Union.
- b. The budgetary cycle in the European Union. The next multiannual budgetary exercise, which will start as of 2007, will take into account the accession of countries presently engaged in negotiations and their participation in the reformed structural funds, such as the Common Agricultural Policy.
- c. The completion of the Europe Agreement between Romania and the European Union. With the Agreement expiring in 2005, the completion of the agreed measures and policies would represent, from the Romanian point of view, an *acquis* in itself.

Box VI.2. The Pre-Accession Instruments

PHARE

Within the 2000 PHARE budget, Romania will benefit from assistance amounting to €251 million distributed between a national program, community programs, and cross-border co-operation (Hungary and Bulgaria).

The biggest amount (€215 million) is allocated for the PHARE national program, which focuses on the following priority areas: (a) "institution building," including twinning projects; (b) converging with the *acquis* on areas such as strengthening the judicial system and civil society development, liberalizing the electrical power and gas sectors, strengthening the institutional capacity of the Ministry of Agriculture, improving border management, and the fight against drugs; and (c) regional development.

Financed out of a PHARE national budget, twinning projects with a EU member country consist of a bilateral partnership between a member country and an applicant for strengthening the institutional development, aiming at creating a public administration able to apply the European *acquis* at the same standards than the EU member states.

ISPA

This pre-accession instrument, taking as reference model the Cohesion Fund, foresees an allocation for Romania up to €240 million. The budget will be allocated for projects in the areas of transport and the environment.

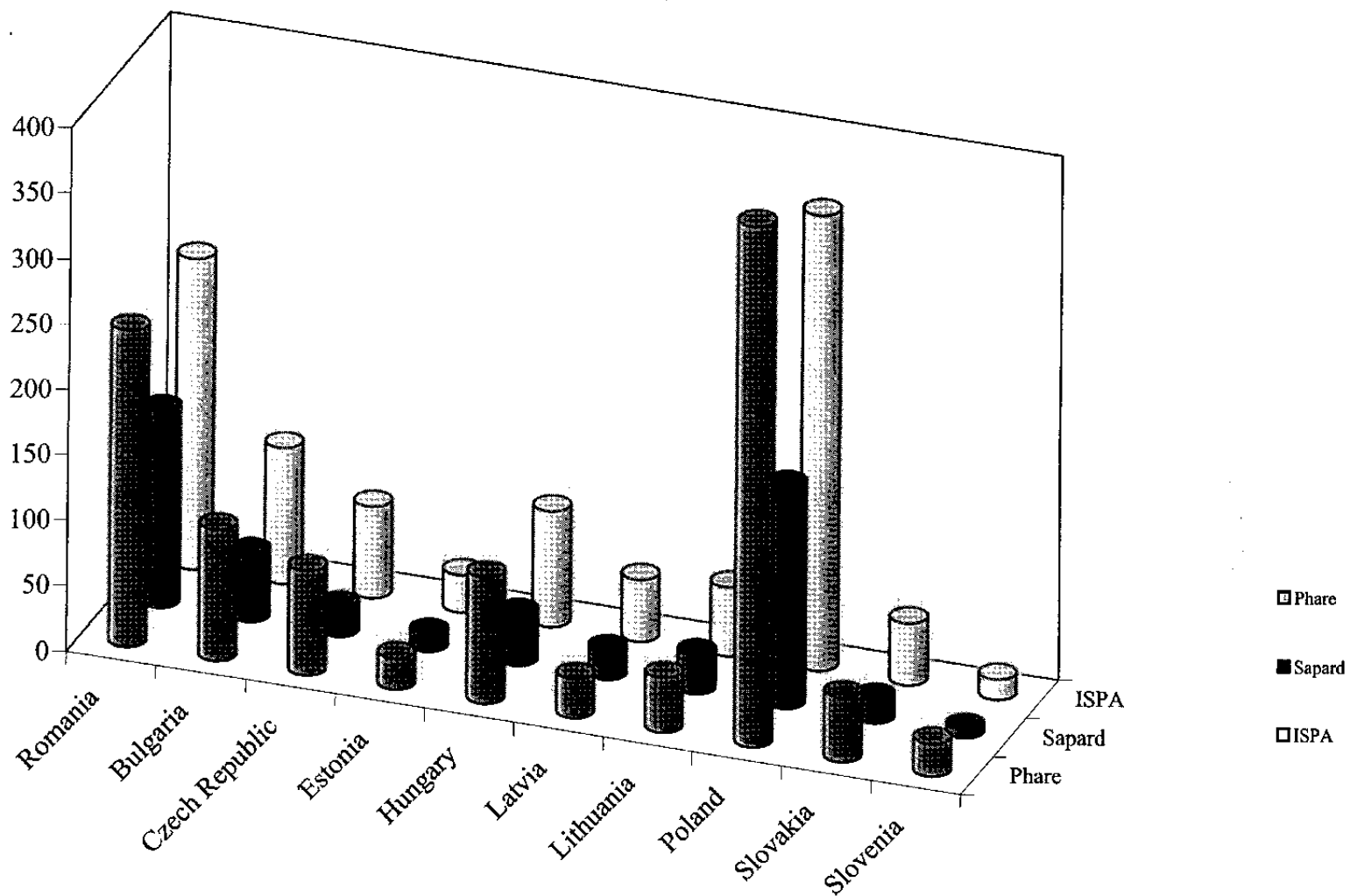
In order to access the ISPA funds starting as of 2000, the Ministry of Transport elaborated the "ISPA National Strategy 2000-2006 in the Transport Sector" in the framework of the National Development Program for Accession to the European Union. Priorities in the field of transport are concentrated on improving the infrastructure on the trans-European corridors.

As regards the environment, the main objective of the investment projects is to support the Romanian government in ensuring compliance with the "heavy" *acquis communautaire* in fields such as drinking and waste water standards as well as air pollution.

SAPARD

Within the SAPARD pre-accession instrument, Romania can benefit as of 2000 from an annual allocation up to €150 million. SAPARD will function along the same model as the European Agricultural Fund—the agricultural subsidy system in the EU. It will support projects in the areas of rural development modernize infrastructure, tourism and the agro-food industry (notably quality). It will target private entities, especially small farmers.

Figure VI.1. EU Pre-Accession Annual Resources in Central and Eastern European Countries (in million of euros)



Priority given to development expenditures

7. In allocating a large volume of its pre-accession resources to Romania, the European Union has taken into consideration the size of the population, the relatively low level of development of the country, and the need for high and sustained economic growth. If Romania is to converge to Western European living standards, the upgrade of the institutional and physical infrastructures needs to be accelerated. EU annual budgeted allocations to Romania during the pre-accession period (2000-2006) are expected to be roughly distributed as follows: PHARE (€240 million); ISPA (€208-270 million); and SAPARD (€150 million). Thus, the share of grants to Romania has been oriented in priority toward development projects—ISPA (transport, water supply and environmental infrastructure), SAPARD (agriculture and rural development), as well as the regional development component of PHARE. The total amount of resources allocated (through PHARE programs) to institution building and the adoption of the *acquis* is somewhat less significant, though it is likely to increase at a later stage.¹⁰

8. The priorities set by the EU can be illustrated through the GDP composition between Romania and the EU. In 1999, the share of agriculture in GDP was 13.9 percent in Romania, compared with 2.3 percent in the EU. In terms of employment, farmers represent by far the largest share of the active population (40 percent, or ten times the level in the EU). Preparing for integration requires large agricultural support programs to increase efficiency and gradually apply relevant EU standards. Moreover, the weight of the industrial sector represents some 28 percent, and the services and construction sector account for 58 percent of the gross value added (compared with, respectively, 31 percent and 67 percent in the EU). It is for this reason that 29 percent of the budget allocated by the EU to SAPARD for candidate countries is earmarked for Romania (compared with 22-23 percent for PHARE and ISPA). With the exception of Poland, which receives 32 percent, this is three times more funding than any other country receives, and the highest allocation per capita (Baltic states excluded).

9. In addition, to the pre-accession instruments, the EU provides resources to support the implementation of the structural adjustment programs agreed with the World Bank and the macroeconomic stabilization program supported by the International Monetary Fund. From 1990 to 1999, the EU provided Romania with €680 million of macro-financial assistance. In 2000, a tranche of €100 million was granted in June upon approval of the first review of the stand-by arrangement and a second tranche of an equivalent amount is to be

¹⁰ Contrary to previous years, only one third of the PHARE programs will be used for “institution building,” including twinning projects that are implemented by member countries’ institutions. Two-thirds will be allocated to financing investments, with roughly one-half of the funds earmarked for investment necessary to reach compliance with the *acquis* and the other half to regional development (assistance to small and medium-sized companies, human resources development, infrastructure, etc.).

disbursed upon approval of the second review of the stand-by arrangement. €100 million was also provided through RICOP,¹¹ a program financing social safety nets in the context of the restructuring (liquidation/privatization) of the public companies. This reflects a large degree of overlap between the accession agenda and measures to strengthen economic management, as well as complementarity between reforms designed to facilitate accession and inevitable structural reforms.

Strengthening absorption capacities

10. To absorb the additional volume of EU grants, the Romanian Government needs to take a number of necessary fiscal and institutional measures.

11. On the fiscal front, both ISPA and SAPARD require co-financing, as the support of the European Community cannot exceed 75 percent of the value of the project. In the case of SAPARD, the co-financing element must come from the national, regional (judet) or local budget, while for ISPA the co-financing element may also be provided by international financing institutions and interested commercial banks. The PHARE projects financing investments will also require co-financing from national public funds and the EU contribution will be limited to 75 percent of the public expenditures. The additional direct cost for the budget will amount at a minimum to €100–150 million, equivalent to 0.5–0.7 percent of GDP. In addition, one should take into account the indirect maintenance cost to ensure the functioning of the projects following their implementation.

12. As regards institutional measures, solid and transparent policymaking and administrative capacities needed to be established. The new aid instruments represent a major change since there are three programs with more than twice as much funding, as well as different rules for each instrument. ISPA requires the preparation of strategies for both transportation and the environment, as well as a financing memorandum for each project, rather than a financing memorandum covering an entire program (as is the case under PHARE). SAPARD requires a paying agency to be set up (which on accession will be responsible for the management of the EU's agricultural fund). Different regional agencies may be needed, as SAPARD support goes to individual farmers. Project management capabilities, financial management structures, and public procurement systems have to be built.

13. Modifications to Romanian national financial control have been adopted in line with the requirement of the pre-accession funds. But the move to ex post financial control will be made by the Commission only when it deems the system fully operational. The Romanian government experiences difficulties in setting up the relevant administration eligible to

¹¹ RICOP is a PHARE program closely linked to the implementation of the Private Sector Adjustment Loan (PSAL) agreed with the World Bank. The non-reimbursable assistance is provided for: redundancy intervention (outplacement and severance pay); job creation in the field of public works; employment promotion initiatives; small business finance; social response measures; and technical assistance.

manage the funds and there will be delays in starting the SAPARD projects. Moreover, many of the possible SAPARD projects that are to be selected rely on the financing through regional (judet) and local budgets, where co-financing possibilities are very limited, in part because of weak financial management. It is therefore likely that disbursements for ISPA and SAPARD will not start before 2001 (at the earliest for the latter).

The Stability Pact projects: An additional volume of resources

14. Romania and Bulgaria are the only two countries that belong both to the group of countries invited to negotiations to EU accession and beneficiary parties of the Stability Pact for South-Eastern Europe. The two countries have been affected by two main political developments in the region. First, the sanctions decided by the UN as of 1994 against the Federal Republic of Yugoslavia through a gradual embargo on goods (and then services) have reduced trade relations with a neighboring country and shrunk economic activity in the border areas. Second, following the start of the war in Kosovo, the destruction of bridges has hindered navigation on the Danube River, thereby freezing the emerging activity of the shipping companies that had been recently privatized. Romania and Bulgaria, therefore, became beneficiary countries of the Stability Pact, which aims at promoting a comprehensive regional development approach to the Balkans. This also meant further resources, mainly in the form of grants, in the context of new funding of programs and projects. The source of these funds comes in the first place from the EU, either through bilateral aid, the budget of the Commission, or its financial arm, the European Investment Bank.¹²

15. In March 2000, donors participating in the Regional Funding Conference for South-Eastern Europe considered a first round of projects and programs for the development of the Balkans. Individual countries and multilateral institutions pledged €2.4 billion of financial support to the Quick Start projects, of which half of the funds were estimated to be in the form of grants. Quick Start projects are expected to begin within a year and are mostly geared to upgrade infrastructure, promote trade, and encourage investment. Romania's Quick Start program consists of two road infrastructure projects, for an amount of €332 million, or some 30 percent of the total funding of projects.¹³ Its other "near-term projects," which will be considered subsequently for funding, amount to €770 million or 28 percent of the projected total cost. To date, Romania is the leading beneficiary country of the Stability Pact in terms of volume of aid pledged.¹⁴

¹² Based on the April 2000 Report to the Working Level Steering Group on the financial results of the regional funding conference for South-Eastern Europe.

¹³ The list of projects also includes the protracted construction of a second bridge between Romania and Bulgaria, which will open an important road corridor for the latter.

¹⁴ The Federal Republic of Yugoslavia joined the Stability Pact on October 26, 2000.

C. On the Way to Accession

Establishing a “functioning market economy”

16. The degree of state ownership in the economy is often a good indicator of whether a market economy is free of distortions and functions properly. The state maintains an important role in the Romanian economy, in particular through its ownership of large companies. The share of the private sector in production has remained constant at about 61 percent of GDP since 1997. In mid-2000, about 60 percent of large companies (in terms of State Ownership Fund (SOF) capital) remained to be privatized. In addition, all utilities remain in state hands, with the exception of ROMTELECOM. The lack of financial discipline of public companies and their high level of arrears has turned into a major distortion for the Romanian market, while hampering the privatization process. Moreover, despite the high degree of estimated private land ownership (about 85 percent), the government also remains a key actor in the land market, mainly as a result of the lack of progress on the issue of restitution of agricultural land and forests and the deficiencies of the land cadastre. The law on the restitution of state arable land and forests was promulgated in January 2000, but implementation remains slow.

17. The existence of fair access to market financing is a second indicator. Progress in this area would require privatization of the banks and strengthening of supervision activities. The privatization process has started in the last two years, with two state-owned banks and the closure of another one. Two commercial banks owned by the government, representing at end-1999, respectively, 29.1 percent and 4.2 percent of the total assets of the banking sector, as well as the savings bank of the country (10.6 percent of the total assets), are still owned by the government. Provided the government remains committed to the process of bank privatization, it should be possible to complete the privatization of the two commercial banks by 2001. The National Bank of Romania has also embarked on a reform to consolidate the supervision of the banking system.

18. Transparency in the market—namely whether the government is able to regulate the market in order to ensure fair competition—is another indicator of whether the economy functions properly. Admittedly, some share of the Romanian economy is unregulated, with the emergence of a parallel economy that has developed rapidly in recent years. According to various studies that have been carried out to assess its size, the parallel economy could represent between 20 percent and 40 percent of Romanian GDP, reflecting some of the weaknesses of the transition process.¹⁵ As regards competition rules, the European Commission stated in its progress report in 1998 that “*Romania's Competition Law is largely in line with EU legislation,*” but called for “*efforts toward full and effective application of the legislation.*” The same remarks apply to state aid and public procurement, as the new law that entered into force in 2000 transposes most of the *acquis communautaire*. A related issue is the ability to protect intellectual property rights. Under the Europe Agreement, Romania made the commitment to provide by 2000 a level of protection of intellectual property rights

¹⁵ See Mungiu (2000).

similar to that in the EU. The government acknowledges that effective enforcement remains a challenge and intends to allocate additional resources allocated to this purpose.

19. A fourth indicator is the degree of price liberalization, where progress has been positive so far. The prices of most goods are freely set, with the notable exception of gas prices and utilities, which account for about 11 percent of the total consumer price index basket. Controlled prices have been periodically adjusted, though not always with the same frequency in the last 12 months.

20. Finally, a legal environment conducive to business activities is a key aspect. In the context of the acceleration of structural reforms, the authorities introduced a number of important legislative changes, including modifications to the company law and the bankruptcy law, and to the legal regime for leasing operations, as well as new laws on secured transactions. In general, though, the weaknesses of the legal and judicial framework continue to hinder the development of economic activity and encourage the emergence of a parallel economy.

21. Against this background, notwithstanding considerable progress in stabilization and structural reform over the past two years, the Commission noted in October 1999 that "*Romania cannot be considered to be a functioning market economy,*" and conditioned a revision of this assessment on many legal and institutional changes and achievement of macroeconomic stability.

Consolidating trade and foreign investment, and liberalizing capital flows

22. Trade is among the areas where Romania is most integrated with the EU. Much progress has been made toward the liberalization of the sector and the reduction of tariff barriers. The composition of external trade and its geographical structure have gradually shifted, thereby providing the conditions for a smooth transition to the EU single market. As regards the latter, Romania is driven by the implementation of the Europe Agreement, a free-trade agreement that requires the elimination of remaining tariffs on nonagricultural imports from the EU by 2002 (see Box VI.3) and gradual reciprocal tariff reductions for agricultural products. Meeting this commitment will not be unduly difficult, as tariffs on industrial products are relatively low, with an average most favored nation rate at 16 percent (well below the upper limits defined jointly with the WTO of some 35 percent) and a preferential rate of 7 percent on average for imports from the European Union (see Table VI.3).¹⁶ The phasing out by 2002 is likely nevertheless to lead to more intense competition on the domestic market, as the tariff elimination was back-loaded for sensitive products such as footwear, and textile and clothing products. On agricultural products, the liberalization of tariffs has been substantial in recent years, since Romania applied up to 1997 the limits applicable for the most favored nation (MFN) tariff rates agreed with WTO—an average

¹⁶ See the Trade Policy Review of the WTO for a detailed description of the tariff regime in Romania.

Box VI.3. Romania and Free-Trade Agreements

Romania has concluded free-trade agreements with the European Union, EFTA, CEFTA, Moldova, and Turkey.

Entering into force in 1995, the Europe Agreement with the European Union, aims at accelerating the economic integration of Romania. The basic principles of the agreement are:

- (i) the introduction of a free trade area, to be achieved gradually, on an asymmetric basis; to this end, the European Union eliminated, from the entry into force of the agreement, the customs duties on most industrial products, while Romania is gradually reducing customs duties, with a view to eliminating them by the start of 2002;
- (ii) the mutual elimination of quantitative restrictions on imports, enforced from the entry into force of the Agreement;
- (iii) the elimination of quantitative restrictions on exports (eliminated by the European Union from the entry into force of the agreement and from 1998 by Romania);
- (iv) the initiation of trade liberalization for agricultural goods on the basis of concessions granted to one another.

The Europe Agreement allows the Romanian economy to prepare for the moment of accession. The asymmetry of the concessions provides the basis for an increase of industrial product exports to the EU, thus positively influencing the process of productivity increase through the use of new technologies. At the same time, the need to observe internationally accepted rules improves the commercial behavior of the Romanian exporters.

The Free Trade Agreement with the EFTA States is largely patterned on the trade provision of the Europe Agreement.

The process of regional integration is consolidated by the accession of Romania to the Central European Free Trade Agreement (CEFTA), on 1 July 1997. The CEFTA countries, all "front-runners" to EU accession, agreed before the entry of Romania, to complete trade liberalization among themselves by 2001. Without changing that objective, the CEFTA countries aim at gradually eliminating customs duties reciprocally with Romania by 2002.

Romania is also a member country of the Black Sea Economic Cooperation, which promotes trade in the Black Sea area.

bound rate of 134.1 percent—and brought it down to 33.9 percent. However, there is no significant preferential tariff applied so far to the European Union and the cost of tariff elimination on agricultural goods might be more significant for Romania. The two parties are committed through the Europe Agreement to move gradually toward (asymmetric) concessions and tariff reduction.¹⁷ Romania is also committed to eliminate most tariff barriers with EFTA and CEFTA countries. As regards the latter group, tariffs on industrial products are virtually down to zero and on agricultural products, at some 23 percent. Finally, the issue of application of the EU third-countries tariff to non-EU countries with which Romania is committed in trade arrangements (Moldova, Black Sea countries) will need to be settled. As regards temporary measures, Romania ended the practice, which had intensified in 1995-96, of tariff reductions subject to quotas. All remaining quantitative restrictions on exports have been eliminated and replaced with automatic licensing for statistical purposes. In addition, no anti-dumping, countervailing, or safeguard measures have been taken under the WTO Agreements. The import surcharge, which was introduced in 1998 at 6 percent, is gradually being phased out and is expected to be eliminated by January 1, 2001. The new Customs Code of 1997 unified the regime for importers and exporters in a single framework. It converges with the EU's Customs Code, as the principles of customs valuation are largely the same. Comparison values were used until 1998 for products subject to excise taxes, but were replaced in 1999 with a data base of prices.

23. In line with EU requirements, excise taxes are levied on alcoholic beverages, tobacco products, and petroleum products (as well as a general category of other products). Although excise duties were increased in December 1999, their level remains low in relation to EU levels. The government is wary that relatively high levels of duties and taxes could contribute to smuggling and customs fraud. Also, the strengthening of border controls is perceived as complicating customs procedures, often described as complex, cumbersome or time-consuming. As regards VAT, Romania has applied a uniform VAT rate of 19 percent since January 2000 (see Chapter II).

24. An indicator of Romania's preparedness for EU accession is the level of its commercial integration with the EU, reflecting, as the Commission states it, the "*capacity to cope with competitive pressure and market forces within the Union.*" Romania's commercial relations with the EU became predominant beginning in 1995 (see Table VI.4). The share of exports to EU countries in the total Romanian exports increased from 33.9 percent in 1990 to 65.5 percent in 1999. The same trend was registered for Romanian imports from EU countries, whose share in total Romanian imports was 55.1 percent in 1999, compared with 21.8 percent in 1990. Among the candidate countries in 1999 (including Turkey, Cyprus, and Malta), Romania was both the sixth largest destination for exports and the sixth largest

¹⁷ As of August 2000, the EU and Romania elaborated a separate list of meat and food products that can be exported with zero customs duties, most often on the basis of quotas.

source of imports. On a per capita basis, however, EU trade with Romania is the lowest among candidate countries and the trade balance has, since 1993, been positive for the EU.¹⁸

25. The analysis of Romania's trade with the EU from 1990 to 1999 illustrates the important structural changes in the country's economy. Export activities have shifted from capital- and energy-intensive industries to labor-intensive manufactured goods with a low value added. There has been, therefore, a substantial decline in exports of mineral and chemical products, a surge of exports of textiles, footwear, and wood products, and an increasing reliance on imports of raw materials for these industries from the EU (fabrics, hides, skins, etc.). In central and eastern Europe, Romania is the largest exporter of clothing products to the EU.

26. As regards foreign direct investment, the investment regime is broadly liberal. All investors, domestic and foreign, benefit from a general guarantee against nationalization and expropriation. In principle, there is equality between foreign and domestic investors in establishing a Romanian company and foreign direct investments are free (except for the oil exploitation and insurance sectors), as are investments in real estate for business purposes.¹⁹ Notwithstanding these provisions, foreign direct investment played only a minor role in Romania's transition between 1989 and 1996 (a total of US\$1.7 billion), with levels becoming more significant only in 1997 (US\$1.3 billion) and 1998 (US\$2 billion) and below US\$1 billion in 1999. The relatively low level of foreign direct investment to date has been an obstacle to the modernization of the capital base and creation of jobs in the private sector. The status of Romania as an EU candidate should enhance its attractiveness to foreign investors.

27. Turning to foreign exchange regulations, Romania enjoys full convertibility of current account transactions (Romania accepted the Article VIII obligations in March 1998). However, there are still in practice some constraints on capital account transactions: Romania applies an authorization procedure for most outward capital transactions as well as short-term capital inflows.²⁰ In choosing to limit short-term capital inflows, the government wants to prevent instability in the foreign exchange market. In July 1999, to prepare for

¹⁸ In 1999, Italy was Romania's largest trading partner, with 34 percent of total bilateral trade between Romania and the EU, followed by Germany (28 percent) and France (10 percent).

¹⁹ One of the major flaws up to 2000 has been the large number of laws providing local and foreign enterprises with exemptions from the payment of customs duties and taxes collected at the border. Given the complexity of the incentives system, the investment regime lacked transparency and turned into an unstable and unfair system. In the course of the first half of 2000, most investment incentives were removed (see Chapter II).

²⁰ However, the repatriation of capital and capital gains is free of taxes in Romania; dividends paid by a Romanian company are subject to a 10 percent withholding tax; and interest earned by nonresidents is subject to a 10 percent withholding tax with the exception of payments made by banks registered in Romania.

integration to the European capital market, the National Bank of Romania approved a three-stage liberalization program, to be completed by the date of accession. The first stage envisaged would encompass the liberalization of capital inflows, excluding short-term operations (such as transactions with money market instruments, securities issued or guaranteed by public entities, and the placement of deposits in lei by nonresidents), and the second stage would include the liberalization of capital outflows. The timetable for the two stages is not yet finalized; it is understood that when Romania joins the EU, it will need to have completed the third stage by opening its capital account fully.

Joining EMU: Implications for Romania

28. The European Commission now considers the participation in EMU an integral part of the *acquis* while the EU member countries have decided that no more opt-out clauses from-EMU will be granted to candidate countries. As 2007 is the date set by the Romanian Government to join the EU, the question of the implications of the accession to the EMU is therefore not premature. But a clear distinction should be made between compulsory participation in the EMU and the adoption of the euro as a single currency. In its 1999 Composite paper on progress toward enlargement, the Commission stated that "*new-Member States are not expected to adopt the single currency immediately upon accession, even though they will be taking part in EMU*". Upon accession, the newcomers will have the status of Member States with a derogation under the rights and obligation, specified under article 122 of the Amsterdam Treaty, of a country which takes part in EMU but which still uses its national currency. With an insufficient degree of real economic convergence and financial integration, newcomers may be confronted with asymmetric shocks with respect to the euro area. Priority should therefore be given to consolidate the well functioning of markets as well as to macroeconomic stability in order to reach a high degree of sustainable convergence. As noted by the Commission, "*there is a risk that candidate countries will rigidly orient their policies towards compliance with the Maastricht convergence criteria in an effort to adopt the euro at the earliest possible opportunity.*"

Institutional and legal requirements

29. To comply with the *acquis* and fully access the EMU (Stage III), the Romanian government will need to take four main institutional and legal requirements into consideration, unless the EU countries grant a transitory period.²¹ The liberalization of capital flows and an efficient financial sector will be instrumental in building the capacity to join the EMU and subsequently the euro area.

30. The first key pre-condition in joining EMU relates to exchange rate policy. Prior to accession, Romania is free to choose whatever exchange rate system suits it, although admittedly the system should be appropriate in facilitating economic and financial convergence to the EU. Upon membership, a new member is obliged to avoid exchange rate fluctuations and competitive devaluations. This is why in principle, though on a voluntary

²¹ See Temprano-Arroyo and Feldman (1998).

basis, a newcomer is likely to enter the exchange rate mechanism (ERM II), a system established to maintain the exchange rate of the currency of the applicant member country against the euro within a band (± 15 percent) around the central rate. This would imply for instance that Romania's macroeconomic parameters enable the country to modify its floating exchange rate system to join ERM II.

31. Second, the central bank must be able to formulate monetary policy without government interference so as to meet its primary objective, the maintenance of price stability. The central bank should also comply with rules on the appointment, dismissal, and term of office of the governor. In Romania, the independence of the central bank is functional but remains conditional.²² The law on the National Bank of Romania (NBR) remains, among the ten candidate countries, the only one that has no explicit reference to independence (reportedly out of concern that it might have been interpreted as "unaccountability"). The NBR nevertheless freely chooses the instruments and techniques of monetary control and exchange rate policy, which ultimately lead to price stability.²³ As regards political independence, the Governor, as well as the members of the Board, are appointed for six years and are accountable to the Parliament.²⁴

32. Third, countries joining EMU must renounce all forms of direct central bank financing of government deficits. Romania has relatively restrictive rules. Overdrafts are permitted but for a limited amount (7 percent of state budget revenues, or about 1.2 percent of GDP in 1999), and a short maturity.²⁵ The purchase of national government securities by

²² For an analysis of the institutional framework of central banks in ten Central and East European countries, see Hochreiter and Kowolski (1996).

²³ "The main objective of the National Bank of Romania (NBR) is to ensure the stability of the national currency, for the overall purpose of price stability," Article 2 of the National Bank Act.

²⁴ According to Article 34 of the National Bank Act: "A member of the Board of Directors may be recalled from office by the Parliament whenever he/she is no longer eligible, according to the provisions of Article 36 (incompatibilities and conflict of interests; a prison sentence was pronounced and the court ruling is final; during his/her mandate he/she engaged in inadequate operations, substantially damaging to the NBR's interests)."

²⁵ Article 29 of the National Bank Act: "The total amount of loans granted during one financial year shall not exceed 7 percent of the state budget revenues of the previous years, and the outstanding balance of loans granted and unpaid shall not exceed at any time, twice the amount of the NBR's own capital and reserves." The loan has to be repaid within 180 days at a market interest rate.

the central bank in the primary market, as well as the privileged access of public authorities to financial institutions, are implicitly not allowed but not explicitly prohibited by the law.²⁶

33. Finally, the smooth functioning of the financial sector and the ability to cope with free but volatile movements of capital are critical and part of the EMU *acquis*. The prospect of EU membership will increase pressure to make progress toward developing a healthy, efficient and market-oriented financial sector.²⁷

Maastricht criteria

34. The Commission noted in 1999 that "*attempts at too early adoption of the euro (i.e. before these economies have reached a high degree of sustainable convergence) could be highly damaging for the candidate and ought to be discouraged.*" In this regard, it would seem too early to assess Romania's macroeconomic convergence through the Maastricht criteria. Sustainable nominal convergence is more likely to be judged when Romania will have demonstrated its capacity to successfully operate within the single market and liberalized capital movements, as was the case with existing member countries.

35. Looking ahead, Romania's performance gap in terms of the Maastricht criteria as compared to most other candidate countries may, however, raise difficulties for the EU (Table VI.5). Romania's inflation rate is not only much above the EU average, but at the highest average level among the applicant countries since the transition process has started. The inflation rate reached an annual average of 123 percent in the period 1991–99, and has never declined below 30 percent, a threshold that will remain unchanged in 2000. Romania's fiscal policy may appear rather tight and in line with the target set by the Maastricht criteria, with the average general consolidated budget balance reaching a deficit of slightly above 3 percent of GDP since the start of the transition period, but this measure does not reflect large quasi-fiscal costs related to public companies' debts. In the years ahead, fiscal balances will be burdened by the cost of the bank restructuring and the much delayed restructuring of the public sector, with considerable hidden debts in the form of arrears. Interest rates, which have been among the highest of the group of candidate countries in recent years, are likely to remain high until Romania's inflation converges to EU levels. It should be noted that a long-term interest rate indicator is lacking; ten-year bonds still do not exist and the longest maturity in Romania is currently the two-year treasury note, reflecting the overall lack of confidence in government paper, of the short term structure of bank deposits in an inflationary context, and the shallowness of the capital market. Romania meets consistently only the convergence criteria related to the level of the government debt to GDP, a ratio close to zero in 1990, which rose to some 30 percent of GDP in 1999, less than half the EU average, and is largely contracted on short- and medium-term maturities.

²⁶ Moreover, some recent bailing out operations, when the NBR bought large amount of T-bills issued to recapitalize two state-owned banks following their restructuring and the closing of a third one, would probably not be in conformity with EMU rules.

²⁷ See Koehler and Wes (1999).

36. In meeting one convergence criterion out of four and experiencing a recurrent instability of its nominal and real exchange rates, the question of Romania's convergence to the macroeconomic parameters of the EU member countries is rhetorical in the short and medium run, though it remains a benchmark in a longer horizon. The main conclusion of this chapter is that stabilization is a prerequisite and macroeconomic stability needs to be achieved to build up a macro-performance record that will convince EU member countries about the sustainability of the convergence track. This will require tight fiscal and monetary policies that will need to be reconciled with development and public investment needs. To this end, Romania will benefit from a substantial share of the resources made available by the EU during the pre-accession period. It will be important to promptly use, and efficiently absorb, the EU pre-accession transfers to upgrade the country's infrastructure and to set the conditions to boost the economic growth indispensable to real convergence.

Table VI.1. Differences in GDP Per Capita and Poverty Lines in Central and Eastern European Countries

	Bulgaria	Czech Republic	Estonia	Hungary	Latvia	Lithuania	Poland	Romania	Slovakia	Slovenia	EU
GDP per capita ¹	4,809	12,362	7,682	10,232	5,728	6,436	7,619	5,648	9,699	14,293	21,227
As percent of EU average	23	59	37	49	27	31	36	27	46	68	...
Poverty line at US\$4.30 a day ²	18.2	0.8	19.3	15.4	34.8	22.5	18.4	44.5	8.6	0.7	...

Source: World Bank Development Indicators 2000

1/ 1998 GDP per capita at PPP

2/ In percent

Table VI.2. Annual Distribution of EU Pre-Accession Aid Between Central and Eastern European Countries

	Phare				Sapard				ISPA ²				Total			
	Allocation (in million of Euros)	As percent of total	As percent of GDP ¹	Per capita (in Euros)	Allocation (in million of Euros)	As percent of total	As percent of GDP ¹	Per capita (in Euros)	Allocation (in million of Euros)	As percent of total	As percent of GDP ¹	Per capita (in Euros)	Allocation (in million of Euros)	As percent of total	As percent of GDP ¹	Per capita (in Euros)
Romania	242	28.7	0.71	10.76	151	40.8	0.44	6.69	239	23.0	0.70	10.62	632	31.4	1.86	28.07
Bulgaria	100	11.9	0.91	12.05	52	14.1	0.47	6.28	104	10.0	0.94	12.52	256	12.7	2.33	30.85
Czech Republic	79	9.4	0.16	7.67	22	6.0	0.04	2.14	70	6.8	0.14	6.81	171	8.5	0.34	16.62
Estonia	24	2.8	0.52	16.00	12	3.3	0.26	8.09	29	2.8	0.62	19.05	65	3.2	1.41	43.14
Hungary	96	11.4	0.23	9.50	38	10.3	0.09	3.77	88	8.5	0.21	8.74	222	11.0	0.52	22.02
Latvia	30	3.6	0.53	12.00	22	5.9	0.38	8.74	47	4.5	0.82	18.70	99	4.9	1.73	39.44
Lithuania	42	5.0	0.44	11.35	30	8.1	0.31	8.06	52	5.0	0.55	14.04	124	6.2	1.30	33.45
Poland	398	47.2	0.28	10.28	169	45.7	0.12	4.36	348	33.5	0.25	8.99	915	45.5	0.65	23.64
Slovakia	49	5.8	0.27	9.07	18	5.0	0.10	3.39	47	4.5	0.26	8.66	114	5.7	0.63	21.12
Slovenia	25	3.0	0.14	12.50	6	1.7	0.04	3.17	16	1.5	0.09	7.79	47	2.3	0.27	23.46
Total	843.0	100.0			369.4	100.0			800.0	77.0			2,012.4	100.0		

Source: EU Commission, Eurostat.

Note: This table indicates the program allocations budgeted by the EU Commission in 2000, not the disbursements. For SAPARD and ISPA, a roughly equivalent budget allocation is planned during the period 2000-2006 and for PHARE during the period 2000-2002.

1/ GDP in 1998 at current prices

2/ Central scenario. The EU Commission has projected three scenarios by countries: Romania is to receive an annual allocation between €208 and €270 million.

Table VI.3. Romania: Average Tariffs in 1999
(In percent)

Origin	Agricultural Products	Other Products	All Products
Most Favored Nation			
Statutory ¹	134.1	16.2	16.2
Applied	33.9	16.2	19.8
Preferential			
European Union	31.6	7.0	12.0
Turkey	32.5	7.1	12.2
EFTA	32.2	6.1	11.4
CEFTA			
Bulgaria	22.7	0.9	5.3
Czech Republic	22.8	0.0	4.6
Poland	22.6	0.6	5.0
Slovak Republic	22.8	0.0	4.6
Slovenia	24.6	0.5	5.3
Hungary	22.8	0.9	5.3

Source: World Trade Organization (WTO).

1/ Upper limit set with WTO.

Table VI.4. Composition of Romanian External Trade with the European Union, 1990-99

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Exports to EU (FOB)	(In percent of total)									
Total	100	100	100	100	100	100	100	100	100	100
1 Agricultural products	5.6	7.0	7.2	5.4	4.3	3.7	3.5	3.3	2.7	3.8
2 Mineral and chemical products	36.2	27.5	16.7	14.4	11.3	8.0	8.0	5.2	4.0	2.5
3 Textiles	12.5	12.7	18.2	31.0	33.1	31.2	33.4	36.0	36.4	36.1
4 Footwear and related products	1.7	2.7	2.9	6.4	9.5	9.3	10.3	11.0	11.1	11.8
5 Common metals	11.2	12.2	13.4	10.4	11.5	17.0	14.8	16.5	15.8	12.1
6 Electric equipment	9.7	6.5	7.4	6.5	7.6	7.8	8.7	8.6	10.2	12.1
7 Other	23.0	31.5	34.2	25.8	22.7	22.9	21.2	19.3	19.8	21.7
Memorandum items:										
Value of trade (in million of US\$)	5,775	4,266	4,363	4,892	6,151	7,910	8,084	8,431	8,302	8,503
Share of CEFTA in total exports (in percent)	9.1	5.4	3.8	3.4	4.5	3.5	3.6	4.1	5.4	7.0
Share of EU in total exports (in percent)	33.9	36.9	35.2	41.4	48.2	54.1	56.5	56.6	64.5	65.5
Imports from EU (CIF)	(In percent of total)									
Total	100	100	100	100	100	100	100	100	100	100
1 Agricultural products	22.4	27.0	17.4	15.2	13.1	8.7	7.5	7.6	6.6	7.2
2 Mineral and chemical products	24.5	26.6	17.3	13.9	12.0	13.7	14.2	13.1	11.7	11.6
3 Textiles	3.4	3.1	15.2	17.2	20.2	19.6	19.3	22.8	23.1	26.6
4 Footwear and related products	0.4	1.1	1.1	1.0	1.5	1.7	1.8	2.2	2.3	2.6
5 Common metals	7.9	5.8	5.5	4.8	5.2	5.7	6.5	5.8	5.9	6.1
6 Electric equipment	23.5	24.6	21.9	27.2	32.0	28.8	29.3	27.6	27.0	26.4
7 Other	17.7	11.8	21.6	20.7	15.9	21.8	21.3	20.9	23.4	19.6
Memorandum items:										
Value of trade (in million of US\$)	9,202	5,793	6,260	6,522	7,109	10,278	11,435	11,280	11,838	11,392
Share of CEFTA in total imports (in percent)	12.0	7.5	5.1	4.1	4.1	4.9	4.7	5.7	9.2	8.1
Share of EU in total imports (in percent)	21.8	28.7	41.3	45.3	48.2	50.5	52.3	52.5	57.7	55.1

Source: National Commission for Statistics.

Table VI.5. Maastricht Criteria: Convergence Indicators

	Consumer Price Index				Government Budget Balance As Percentage of GDP				Government Debt to GDP ratio				Long Term Interest Rates ³			
	Average		1998	1999	Average		1998	1999	Average		1998	1999	Average		1998	1999
	1992-96	1997			1992-96	1997			1992-96	1997			1992-96	1997		
EU	...	1.7	1.3	1.1	-4.9	-2.6	-2.0	-1.2	69.7	74.0	73.4	72.2	8.0 2/	6.0	4.7	4.7
Romania	134.8	154.8	59.1	45.8	-2.7	-4.6	-5.0	-3.5	21.7	27.8	28.0	34.5	58.9 1/	60.4	63.7	55.2
Bulgaria	88.8	1,061.6	18.7	2.6	-6.3	-2.1	0.9	-0.9	106.4	97.0	80.8	...	74.0	84.0	13.3	12.8
Czech Republic	12.0	8.4	10.7	2.1	-1.4	-1.7	-2.0	-3.3	12.7 1/	10.0	10.8	12.4	13.1 1/	13.2	12.8	8.7
Estonia	253.1	10.6	8.2	3.3	-0.6 1/	2.2	-0.3	-4.7	8.1	8.9	12.4	...	22.1	19.8	16.7	8.7
Hungary	23.2	18.3	14.4	10.3	-6.8	-6.6	-5.6	-5.6	82.8	63.9	60.6	...	29.2	21.8	19.3	16.3
Latvia	86.1	8.4	4.6	2.4	-3.4 3/	0.3	-0.8	-4.2	9.1	8.9	12.4	...	50.6 1/	15.3	14.3	14.2
Poland	32.5	15.9	11.7	7.3	-3.2	-3.1	-3.2	-3.3	56.6 2/	46.9	42.8	...	33.3	25.0	24.5	17.0
Slovak Republic	12.4	6.1	6.7	10.6	-4.1	-5.2	-5.0	-3.6	32.1 1/	46.0	48.6	...	14.9 1/	18.7	21.2	21.1
Slovenia	46.1	9.1	8.6	6.6	0.0	-1.7	-1.4	-0.9	...	...	...	...	65.7	20.0	16.1	12.4

Sources: EBRD; IMF; and World Bank.

1/ Average for 1993-96.

2/ Average for 1994-96.

3/ Lending interest rates, year average, except for the EU (government bond yield).

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Table 1. Romania: GDP by Origin, 1993-99

	1993	1994	1995	1996	1997	1998	1999
(In billions of lei; at current prices)							
Total	20,036	49,773	72,136	108,920	252,926	368,261	521,736
Agriculture and forestry	4,206	9,898	14,269	20,949	45,533	53,682	72,595
Industry	6,781	18,018	23,711	36,182	78,094	101,166	144,955
Construction	1,040	3,251	4,755	7,067	13,230	19,612	25,189
Trade 1/	2,058	4,076	7,570	12,722	28,768	50,610	70,316
Other	5,951	14,530	21,830	32,000	87,301	143,191	208,680
(Sectoral GDP shares; in percent)							
Agriculture and forestry	21.0	19.9	19.8	19.2	18.0	14.6	13.9
Industry	33.8	36.2	32.9	33.2	30.9	27.5	27.8
Construction	5.2	6.5	6.6	6.5	5.2	5.3	4.8
Trade 1/	10.3	8.2	10.5	11.7	11.4	13.7	13.5
Other	29.7	29.2	30.3	29.4	34.5	38.9	40.0

Source: National Statistics Commission.

1/ From 1993, "Trade" includes hotels and restaurants.

Table 2. Romania: GDP by Expenditure, 1993-99

(In percent)

	1993	1994	1995	1996	1997	1998	1999
(Real annual change)							
GDP	1.5	3.9	7.1	3.9	-6.1	-5.4	-3.2
Total consumption	1.2	3.8	10.8	7.0	-4.3	-4.0	-4.5
Households	0.9	2.6	13.0	8.0	-3.7	-4.6	-4.9
Public & private	2.8	9.5	1.1	1.9	-7.5	-0.8	-2.4
Gross fixed capital formation	8.3	20.7	6.9	5.7	1.7	-5.1	-10.8
Exports	11.1	19.0	17.0	2.0	11.4	5.9	8.8
Imports	4.4	2.8	16.3	8.7	7.5	14.3	-5.1
(Shares of GDP)							
GDP	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total consumption	76.0	77.2	81.3	82.6	86.4	86.7	84.3
Households	63.2	63.2	67.3	69.1	73.6	72.2	69.6
Public & private	12.8	14.0	14.0	13.5	12.8	14.5	14.7
Gross fixed capital formation	17.9	20.3	21.4	23.0	21.2	19.4	18.5
Changes in stocks	11.1	4.5	2.9	2.9	-0.6	2.0	1.4
Net exports	-5.0	-2.0	-5.6	-8.5	-7.0	-8.1	-4.2
Exports	23.0	24.9	27.6	28.1	29.2	23.7	30.1
Imports	28.0	26.9	33.2	36.6	36.2	31.8	34.3
(Contributions to GDP growth)							
GDP	1.5	3.9	7.1	3.9	-6.1	-5.4	-3.2
Total consumption	1.0	2.9	8.3	5.7	-3.5	-3.5	-3.9
Households	0.5	1.7	8.2	5.4	-2.5	-3.4	-3.5
Public & private	0.4	1.2	0.1	0.3	-1.0	-0.1	-0.3
Gross fixed capital formation	1.6	3.7	1.4	1.2	0.4	-1.1	-2.1
Changes in stocks	-2.5	-6.3	-2.4	-0.6	-3.4	2.6	-0.9
Net exports	1.5	3.6	-0.2	-2.3	0.5	-3.5	3.7
Exports	3.1	4.4	4.2	0.6	3.2	1.7	2.1
Imports	1.6	0.8	4.4	2.9	2.7	5.2	-1.6

Source: National Statistics Commission.

Table 3. Romania: Investment by Sector, 1993-99

(In billions of lei at current prices)

	1993	1994	1995	1996	1997	1998	1999
Industry	1,410.8	2,951.8	5,402.4	9,186.8	19,771.6	27,568.2	28,935.4
Construction and geological explorations	78.2	431.0	678.8	1,309.8	3,675.8	4,226.9	4,669.3
Agriculture and forestry	196.4	1,528.6	1,420.3	2,427.4	2,889.8	4,088.4	8,571.4
Transport	316.8	750.3	710.5	1,286.5	2,332.6	3,472.7	6,389.4
Telecommunications	134.2	300.1	368.4	761.1	3,015.7	4,588.9	4,111.3
Trade 1/	272.5	678.6	1,144.2	2,071.0	3,868.3	7,220.3	2,959.2
Housing	165.2	442.6	557.9	975.1	...	...	...
Education	16.9	67.2	109.0	295.1	709.8	768.3	604.7
Health and social assistance	20.6	43.4	104.8	166.1	355.5	581.0	512.2
Public administration and defense	56.3	291.8	577.8	808.9	2,703.4	2,287.0	3,854.5
Financial sector	80.6	311.3	471.9	830.9	2,070.8	3,002.0	2,650.9
Other	238.5	650.5	2,007.4	1,802.0	2,741.4	2,711.7	7,313.5
Investment in the national economy	2,821.8	8,004.6	12,995.5	20,945.3	44,134.7	60,515.2	70,571.8
Of which:							
State sector	1,958.5	4,692.7	6,898.5	10,704.9	20,083.6	21,670.0	24,553.7
investment housing	165.2	442.6	557.9	975.1	2,303.0	3,204.2	4,754.3

Source: Data supplied by the Romanian authorities.

1/ For 1996 and 1997, "Trade" includes hotels and restaurants.

Table 4. Romania: Saving-Investment Balance, 1993-99

(Current prices)

	1993	1994	1995	1996	1997	1998	1999
(Billions of lei)							
Gross domestic saving	4,803.9	11,222.8	13,713.9	19,187.9	34,691.6	49,124.7	80,681.3
Net factor receipts and transfers from abroad	56.3	271.4	274.5	953.0	1,942.6	3,401.2	3,202.9
Gross national saving	4,860.1	11,494.3	13,988.4	20,140.9	36,634.2	52,525.9	83,884.2
General government	3,985.9	9,590.3	11,560.9	18,370.8	34,933.7	55,382.1	86,639.0
Non government	874.2	1,904.0	2,427.5	1,770.1	1,700.5	-2,856.2	-2,754.8
Gross investment	5,795.9	12,348.3	17,510.0	28,160.0	52,171.4	78,954.3	103,877.9
General government	5,394.6	11,345.6	15,907.4	26,056.7	47,693.2	73,270.5	97,722.0
Non government	401.3	1,002.7	1,602.6	2,103.3	4,478.2	5,683.8	6,155.9
Non-financial sector balances	-935.8	-854.0	-3,521.6	-8,019.1	-15,537.2	-26,428.4	-19,993.7
General government	-1,408.7	-1,755.3	-4,346.5	-7,685.9	-12,759.4	-17,888.4	-11,083.0
Non government	472.9	901.3	824.9	-333.2	-2,777.7	-8,540.0	-8,910.7
External current account	935.8	854.0	3,521.6	8,019.1	15,537.2	26,428.4	19,993.7
Memo: Nominal GDP	20,035.7	49,773.2	72,135.5	108,919.6	252,925.7	368,260.7	521,735.5
(Percent of GDP)							
Gross domestic saving	24.0	22.5	19.0	17.6	13.7	13.3	15.5
Net factor receipts and transfers from abroad	0.3	0.5	0.4	0.9	0.8	0.9	0.6
Gross national saving	24.3	23.1	19.4	18.5	14.5	14.3	16.1
General government	19.9	19.3	16.0	16.9	13.8	15.0	16.6
Non government	4.4	3.8	3.4	1.6	0.7	-0.8	-0.5
Gross investment	28.9	24.8	24.3	25.9	20.6	21.4	19.9
General government	26.9	22.8	22.1	23.9	18.9	19.9	18.7
Non government	2.0	2.0	2.2	1.9	1.8	1.5	1.2
Nonfinancial sector balances	-4.7	-1.7	-4.9	-7.4	-6.1	-7.2	-3.8
General government	-7.0	-3.5	-6.0	-7.1	-5.0	-4.9	-2.1
Non government	2.4	1.8	1.1	-0.3	-1.1	-2.3	-1.7
External current account	4.7	1.7	4.9	7.4	6.1	7.2	3.8

Sources: National Statistics Commission; and Fund staff estimates.

Table 5. Romania: Employment in Agriculture (Including Self-Employed), 1993-98
(In thousands of persons, end of year)

	1993	1994	1995	1996	1997	1998
Total employment in agriculture	3,537	3,561	3,187	3,249	3,322	3,296
Private farms	3,139	3,242	2,926	3,000	3,156	3,143
State farms (public and mixed)	398	318	261	249	166	153
Agroprocessing (average)	255	244	231	219	213	214
Memorandum items:						
Total employment in economy	10,062	10,011	9,493	9,379	9,023	8,813
Employment in agriculture (percent of total)	35.2	35.6	33.6	34.6	36.8	37.4

Sources: Ministry of Agriculture and Food; and National Statistics Commission.

Table 6. Romania: Distribution of Land Ownership, 1993-99

(In thousands of hectares)

	1993	1994	1995	1996	1997	1998	1999
Total land area	14,793	14,798	14,797	14,789	14,794	14,746	14,781
<i>Of which:</i>							
Private	10,336	10,371	10,694	10,694	10,431	12,342	12,561
(for which titles distributed) 1/	1,353	3,724	5,738	6,771	7,268	7,688	8,018
Memorandum items:							
Number of titles distributed	566	1,558	2,401	2,833	3,041	3,217	3,356
Number to be distributed	4,990	4,990	4,990	4,242	4,284	4,312	4,334
(percent of total distributed) 1/	11.3	31.2	48.1	66.8	71.0	74.6	77.4

Source: Ministry of Agriculture and Food.

1/ Out of 9,200 hectares of land covered by the Land Law.

Table 7. Romania: Output of Main Agricultural Products, 1993-99

(In thousands of tonnes, unless otherwise indicated)

	1993	1994	1995	1996	1997	1998	1999
Grains, total	15,493	18,184	19,883	14,200	22,100	15,453	17,037
<i>Of which:</i>							
Wheat and rye	5,355	6,187	7,709	3,164	7,186	5,208	4,683
Maize	7,987	9,343	9,923	9,608	12,680	8,623	10,935
Sunflower seeds	696	764	933	1,096	858	1,073	1,301
Sugar beet	1,776	2,764	2,655	2,848	2,726	2,361	1,415
Potatoes	3,709	2,947	3,020	3,591	3,206	3,319	3,957
Field vegetables	2,766	2,476	2,783	2,647	2,354	2,754	2,996
Fruit	2,183	980	917	1,632	1,416	1,036	936
Grapes	1,339	1,033	1,314	1,431	1,179	874	1,117
Livestock production							
Meat (live weight)	1,935	1,852	1,846	1,868	1,705	1,672	1,521
Milk (in millions of hectoliters)	47.3	53.6	56.8	57.2	56.2	54.3	52.6
Eggs (in millions)	5,633	5,407	5,567	5,783	5,271	5,331	5,668
Wool (in tons)	26,011	25,141	24,323	23,165	22,120	19,967	18,983
Honey (in tons)	9,936	9,820	10,435	11,157	10,543	10,198	11,153
Memorandum items:							
Agricultural area							
Total (in thousands of hectares)	14,793	14,798	14,797	14,789	14,794	14,802	14,731
<i>Of which:</i>							
Irrigated	3,102	3,104	3,110	3,096	3,089	3,085	3,084
Per capita output							
Wheat and rye (in kg.)	235	272	340	140	319	231	209
Potatoes (in kg.)	163	130	133	159	142	148	176
Meat (in kg.)	85	82	81	83	76	74	68
Milk (in liters)	208	236	250	253	249	242	234

Source: Data provided by the Romanian authorities.

Table 8. Romania: Industrial Production Index, 1993-99 1/

(Average 1991 = 100) 1/

	1993 2/		1994 3/		1995 3/		1996 3/		1997 3/		1998 4/		1999 4/	
	Index	Monthly Change	Index	Monthly Change	Index	Monthly Change	Index	Monthly Change	Index	Monthly Change	Index	Monthly Change	Index	Monthly Change
January	66.9	-1	71.2	1	74.0	-2	80.2	1	90.7	-3	67.6	-7	59.4	-8
February	75.0	12	68.5	-4	76.1	3	81.4	1	94.3	4	68.5	1	62.4	5
March	84.2	12	77.3	13	89.5	18	91.6	13	100.0	6	75.3	10	69.2	11
April	81.7	-3	76.7	-1	81.5	-9	91.9	0	88.2	-12	68.3	-9	63.1	-9
May	81.7	0	77.0	0	86.8	7	96.0	4	86.5	-2	69.4	2	62.5	-1
June	85.7	5	82.4	7	87.0	0	92.2	-4	88.7	3	69.5	0	63.2	1
July	77.8	-9	76.3	-7	83.2	-4	96.8	5	86.4	-3	67.2	-3	61.1	-3
August	77.1	-1	80.8	6	87.4	5	92.4	-5	74.5	-14	66.6	-1	62.2	2
September	80.3	4	79.7	-1	87.8	0	97.0	5	81.9	10	73.8	11	66.6	7
October	80.5	0	80.7	1	92.6	5	104.8	8	92.6	13	75.3	2	67.4	1
November	82.5	3	84.9	5	93.7	1	101.6	-3	89.7	-3	70.0	-7	69.6	3
December	73.9	-10	75.4	-11	79.3	-15	93.5	-8	80.1	-11	64.4	-8	62.7	-10
Year Average	79.1	1	77.6	3	84.9	9	93.3	10	87.8	-6	69.9	-17	64.1	-8

Source: National Statistics Commission.

1/ Unadjusted series.

2/ 1991-1993 are in structure 1989.

3/ 1994-1997 are in structure 1991.

4/ 1998-1999 are in structure 1995

Table 9. Romania: Number of Employees by Sector and Type of Ownership, 1995-98 1/

	1995			1996			1997			1998		
	Total employees (1000s)	Private Sector		Total employees (1000s)	Private Sector		Total employees (1000s)	Private Sector		Total employees (1000s)	Private Sector	
		Total 2/ (1000s)	Total 2/ employment in sector (%)		Total 2/ (1000s)	Total 2/ employment in sector (%)		Total 2/ (1000s)	Total 2/ employment in sector (%)		Total 2/ (1000s)	Total 2/ employment in sector (%)
Total economy	6,047.7	1,364.2	100.0	5,893.9	1,332.4	100.0	5,399.1	1,531.2	100.0	5,181.6	1,759.5	100.0
<i>Of which:</i>												
Industry	2,600.3	439.6	32.2	2,633.0	490.4	36.8	2,341.4	600.2	39.2	2,221.3	747.6	42.5
Agriculture and forestry	422.9	91.9	6.8	369.1	57.7	4.3	283.9	62.8	4.1	257.4	66.1	3.7
Transport and telecommunications	510.1	52.8	3.9	493.4	48.5	3.6	457.5	51.6	3.4	415.7	65.5	3.7
Construction	425.8	228.2	16.7	425.4	232.8	17.5	382.0	235.6	15.4	340.7	222.8	12.7
Trade	667.3	430.1	31.5	581.2	387.0	29.1	619.8	450.0	29.4	644.8	506.5	28.8
Other	1,421.3	121.6	8.9	1,391.8	116.0	8.7	1,314.5	131.0	8.5	1,301.7	150.9	8.6

Source: Data provided by the Romanian authorities.

1/ Excludes the self-employed.

2/ Distribution by sector of private employees.

Table 10. Romania: Enterprise Payment Arrears, 1995-99
(in percent of GDP)

	1995 1/ Dec.	1996 Dec.	1997 Dec.	1998 Dec.	1999 Dec.
National economy 2/	<u>25.15</u>	<u>36.07</u>	<u>33.74</u>	<u>36.15</u>	<u>42.22</u>
To suppliers	13.35	16.05	11.92	15.22	18.02
To other creditors 3/	3.57	6.90	6.21	6.78	9.46
To banks	3.12	6.22	5.81	6.06	6.44
Of which : Principal	2.33	3.87	...	3.67	4.54
Of which : Overdue interest	0.79	2.36	...	2.39	1.90
To budget	5.11	6.89	6.62	8.08	8.29
Private sector 2/	<u>8.14</u>	<u>14.28</u>	<u>13.24</u>	<u>15.60</u>	<u>19.52</u>
To suppliers	4.51	7.60	7.62	8.50	9.65
To other creditors 3/	2.28	2.40	2.16	2.53	3.67
To banks	0.83	2.12	2.29	3.00	4.21
To budgets	0.52	1.32	1.18	1.57	1.99
State sector (50-100% ownership)	<u>16.00</u>	<u>20.29</u>	<u>17.94</u>	<u>17.65</u>	<u>18.24</u>
To suppliers	8.15	7.57	5.99	5.03	5.75
To other creditors 3/	1.20	4.32	3.95	3.88	4.89
To banks	2.25	3.08	3.35	2.71	1.79
Of which : Principal	...	...	...	...	...
Of which : Overdue Interest	...	...	...	...	...
To budget	4.47	5.32	5.05	6.03	5.81
Wholly state-owned	<u>14.71</u>	<u>14.30</u>	<u>10.28</u>	<u>9.83</u>	<u>8.57</u>
To suppliers	7.61	2.57	3.53	2.68	3.40
To other creditors 3/	0.97	3.22	1.92	2.18	2.55
To banks	1.99	1.94	1.59	1.22	0.52
To budget	4.13	3.87	3.24	3.75	2.11
Mixed ownership	<u>2.18</u>	<u>7.36</u>	<u>10.13</u>	<u>10.62</u>	<u>14.04</u>
To suppliers	1.17	3.14	3.92	4.02	4.96
To other creditors 3/	0.30	1.24	2.11	2.04	3.21
To banks	0.30	1.31	1.92	1.84	1.71
To budget	0.42	1.67	2.18	2.73	4.17
State share > 50% (but less than 100%)	<u>1.29</u>	<u>5.99</u>	<u>7.66</u>	<u>7.82</u>	<u>9.66</u>
To suppliers	0.54	2.31	2.47	2.34	2.35
To other creditors 3/	0.22	1.10	2.02	1.70	2.34
To banks	0.26	1.14	1.76	1.50	1.27
To budget	0.34	1.45	1.81	2.28	3.70
State share < 50%	<u>0.81</u>	<u>1.37</u>	<u>2.47</u>	<u>2.80</u>	<u>4.38</u>
To suppliers	0.63	0.83	1.46	1.67	2.61
To other creditors 3/	0.07	0.15	0.49	0.34	0.87
To banks	0.03	0.18	0.16	0.34	0.44
To budget	0.07	0.22	0.37	0.45	0.46

Sources: Romanian Ministry of Finance; and Fund staff estimates.

1/ 1995 stocks and flows are understated owing to the writeoff of some arrears as part of the FESAL debt conciliations in Fall 1995.

2/ Lei 7,875 billion have been added to the December 1997 figures to adjust for the write off associated with Bancorex and Banca Agricola.

3/ Other arrears, including e.g. wage arrears, dividend arrears, and arrears to the social security, pension and unemployment funds.

Table 11. Romania: State Sector, Losses and Arrears, 1998-99

(Billions of lei)

	1998	1999	
1. Losses			
SOF Portfolio	9,756	24,593	1/
<i>Of which</i> : Sidex	48	7,516	2/
Regies Autonomes and National Companies			
<i>Of which</i> : Renel / Conel	...	4,245	
<i>Of which</i> : Romgaz	...	...
<i>Of which</i> : Petrom	...	...
	1998	1999	
	Dec	Dec	
2. Arrears to Consolidated General Government			
SOF Portfolio			
<i>Of which</i> : Sidex	2,440	11,031	3/
Regies Autonomes and National Companies			
<i>Of which</i> : Renel / Conel	2,009	1,605	
<i>Of which</i> : Romgaz	556	1,208	
<i>Of which</i> : Petrom	3,338	6,244	
3a. Arrears to the utilities - RENEL / CONEL	4,020	6,557	
SOF Portfolio			
<i>Of which</i> : Sidex	553	1,983	
Regies Autonomes and National Companies			
<i>Of which</i> : Romgaz			
<i>Of which</i> : Petrom			
3b. Arrears to the utilities - ROMGAZ	1,971	3,351	
SOF Portfolio			
<i>Of which</i> : Sidex	17	60	
Regies Autonomes and National Companies			
<i>Of which</i> : Renel / Conel	315	1,088	
<i>Of which</i> : Petrom			
3c. Arrears to the utilities - PETROM	4,576	5,800	
SOF Portfolio			
<i>Of which</i> : Sidex			
Regies Autonomes and National Companies			
<i>Of which</i> : Renel / Conel	76	1,234	
<i>Of which</i> : Romgaz	823	863	

Source: Ministry of Industry and Trade, State Ownership Fund

1/ Including the companies in SOF portfolio under liquidation and companies where SOF owns residual shares.

2/ Including penalties.

3/ Sidex did not and has no arrears to PETROM.

Table 12. Romania: Average Monthly Nominal and Real Wages, 1993-2000
(October 1990 = 100)

	Nominal Wage 1/	Real Wage 2/	Real Wage in Industry 3/	
1993	December	2,968	56	59
1994	December	5,824	69	67
1995	December	8,314	77	79
1996	December	12,738	75	80
1997	January	11,655	60	64
	February	13,404	58	64
	March	14,891	50	55
	April	17,378	54	60
	May	16,666	50	55
	June	17,049	50	55
	July	18,242	53	59
	August	19,100	53	59
	September	20,857	56	62
	October	23,401	60	65
	November	24,103	59	63
	December	27,623	64	67
1998	January	26,601	59	62
	February	26,414	55	58
	March	28,686	57	61
	April	31,440	61	65
	May	30,056	57	60
	June	31,289	59	62
	July	33,041	61	66
	August	33,768	62	66
	September	34,274	62	65
	October	35,200	61	64
	November	35,833	61	63
	December	40,922	68	69
1999	January	37,321	60	61
	February	38,925	61	62
	March	42,429	63	66
	April	44,465	62	64
	May	43,887	59	60
	June	45,467	58	61
	July	48,195	60	64
	August	48,822	60	64
	September	49,017	59	62
	October	49,850	57	60
	November	52,692	58	63
	December	59,858	64	68
2000	January	51,897	53	56
	February	52,571	53	56
	March	57,355	57	59
	April	64,238	61	62
	May	61,026	57	58
	June			

Sources: Data provided by the Romanian authorities; and Fund staff calculations.

1/ Index net of taxes and social security contributions. Excludes the private sector.

2/ Nominal wage deflated by the consumer price index.

3/ Nominal wage in the industry branch, deflated by the consumer price index.

Table 13. Romania: Economy-Wide Wages and Productivity, 1994-2000 Q2

		Nominal wages (net; in lei)	Exchange rate (lei / \$)	Wages In US\$	GDP		Output	Employees (thousands)	Real wage (index)		Real wage growth (in percent)		Labor productivity growth (in percent)	Real unit labor cost growth (in percent)
					CPI	PPI			CPI	PPI	CPI	PPI		
1994	Q1	106,925	1,494	72	82	79			94	97	-4.4	-8.5		
	Q2	127,931	1,665	77	97	99			94	92	0.9	-4.7		
	Q3	150,009	1,700	88	105	107			103	101	9.0	8.9		
	Q4	175,586	1,761	100	116	114			109	110	5.9	9.5		
	Average	140,113	1,655	85	100	100	100	100	6,133	100	100	-4.3	-3.7	13.1	-14.8
1995	Q1	175,815	1,802	98	122	120			103	105	-5.3	-4.4		
	Q2	201,271	1,911	105	127	130			114	112	10.2	5.9		
	Q3	226,139	2,047	110	134	141			122	115	6.9	3.6		
	Q4	259,275	2,373	109	146	151			128	124	5.0	7.0		
	Average	215,625	2,033	106	132	135	135	107	5,884	117	114	16.6	14.0	11.7	2.1
1996	Q1	255,893	2,750	93	156	163			118	112	-7.7	-9.1		
	Q2	296,405	2,943	101	168	182			127	117	7.4	4.2		
	Q3	339,416	3,136	108	191	223			127	109	0.6	-6.6		
	Q4	396,233	3,503	113	219	242			130	117	2.2	7.4		
	Average	321,987	3,084	104	184	202	196	111	5,759	126	114	7.7	0.1	6.2	-5.8
1997	Q1	453,408	6,407	71	337	368			97	89	-25.6	-24.6		
	Q2	580,164	7,074	82	464	537			90	78	-7.3	-12.3		
	Q3	660,870	7,375	90	498	570			95	83	6.2	7.2		
	Q4	852,844	7,839	109	572	604			107	101	12.3	21.9		
	Average	636,821	7,174	89	468	519	486	105	5,415	97	88	-22.5	-23.1	-0.1	-23.1
1998	Q1	905,783	8,256	110	665	651			98	100	-8.6	-1.5		
	Q2	1,028,451	8,473	121	729	687			101	107	3.5	7.6		
	Q3	1,120,460	8,847	127	761	701			106	115	4.4	6.7		
	Q4	1,240,688	9,947	125	822	729			108	122	2.4	6.5		
	Average	1,073,845	8,881	121	744	692	748	99	5,187	103	111	6.3	26.6	-1.2	28.2
1999	Q1	1,315,521	12,345	107	900	795			105	119	-3.1	-2.9		
	Q2	1,484,546	15,265	97	1,045	928			102	115	-2.8	-3.3		
	Q3	1,619,330	16,113	100	1,137	1,048			102	111	0.2	-3.3		
	Q4	1,799,549	17,373	104	1,259	1,163			103	111	0.4	0.1		
	Average	1,554,737	15,274	102	1,085	984	1,095	96	4,777	103	114	-0.3	2.5	5.1	-2.4
2000	Q1	1,793,678	18,753	96	1,384	1,261			93	102	-9.4	-8.1		
	Q2	1,941,695	20,403	95	1,495	1,364			93	102	0.3	0.1		

Sources: National Bank of Romania; National Statistics Commission; and National Commission for Economic Forecasting; staff projections for 2000.

Average growth, from 1995 to 1999:

2.49

Table 14. Romania: Wages and Productivity in Industry, 1995-2000

		Nominal wages (net; in lei)	Exchange rate (in lei/\$)	Wages in US\$	CPI	PPI	Output		Employees (in thousand)		Real wage (index)		Labor productivity (index)		Nominal wage (in percent)	Real wage (in percent)		Labor productivity growth (in percent)		Nominal ULC growth (in percent) 4QE	Real unit labor cost growth (in percent)		
							"Operative"	Value-added	Enterprise	LFS	CPI	PPI	M1	M2		CPI	PPI	M1	M2		M1	M2	
1995	Q1	173,823	1,802	96	122	120	105		2,929		99	101	100		-0.8	-6.2	-5.3	4.5		-5.1	33.4	-9.4	...
	Q2	207,062	1,911	108	127	130	112		2,911		113	111	108		19.1	14.6	10.2	7.3		11.0	31.5	2.7	...
	Q3	237,270	2,047	116	134	141	111		2,879		124	117	107		14.6	9.1	5.6	-0.5		15.1	30.1	6.1	...
	Q4	268,999	2,373	113	146	151	114		2,843		128	124	112		13.4	3.8	5.8	4.6		8.4	31.5	1.2	...
	Average	221,789	2,033	109	132	135	111	106	2,640	2,977	116	113	117	111	53.5	16.1	13.4	16.9	11.0	31.3	...	-3.0	2.2
1996	Q1	263,698	2,750	96	156	163	113		2,804		118	112	112		-2.0	-8.3	-9.7	0.0		-1.9	35.9	-9.7	...
	Q2	206,210	2,943	70	168	182	123		2,816		85	79	122		-21.8	-27.5	-29.7	9.0		-28.3	-12.2	-35.5	...
	Q3	375,832	3,136	120	191	223	121		2,806		137	117	120		82.3	60.1	48.6	-1.5		85.0	41.1	50.8	...
	Q4	443,482	3,503	127	219	242	126		2,784		141	127	126		18.0	3.3	8.5	4.6		12.8	46.8	3.7	...
	Average	322,305	3,084	105	184	202	121	113	2,560	2,890	120	109	131	122	45.3	3.6	-3.9	12.4	9.8	29.2	...	-14.6	-12.5
1997	Q1	492,946	6,407	77	337	368	124		2,733	2,892	102	93	127		-16.6	-16.6	-16.6	0.5		-17.0	65.5	-17.0	...
	Q2	635,781	7,074	90	464	537	111		2,687	2,834	95	82	115		29.0	-6.5	-11.6	-8.8		41.4	226.3	-3.1	...
	Q3	722,872	7,375	98	498	570	104		2,620	2,792	101	88	110		13.7	6.0	7.0	-4.3		18.8	109.5	11.8	...
	Q4	898,745	7,839	115	572	604	112		2,486	2,748	109	104	126		24.3	8.2	17.4	13.9		9.2	102.8	3.1	...
	Average	687,586	7,174	96	468	519	113	104	2,631	2,817	102	92	120	115	113.3	-15.4	-15.4	-9.1	-5.5	134.7	...	-6.9	-10.5
1998	Q1	949,357	8,256	115	665	651	97		2,410	2,727	99	101	112		5.6	-9.1	-2.1	-11.0		18.7	117.7	10.1	...
	Q2	1,081,011	8,473	128	729	687	93		2,372	2,683	103	109	110		13.9	3.8	7.9	-1.8		15.9	78.4	9.8	...
	Q3	1,185,950	8,847	134	761	701	90		2,305	2,668	109	118	109		9.7	5.2	7.5	-0.4		10.2	65.5	8.0	...
	Q4	1,276,514	9,947	128	822	729	93		2,224	2,609	108	122	117		7.6	-0.4	3.6	6.8		0.8	52.9	-3.0	...
	Average	1,123,208	8,881	126	744	692	93	100	2,328	2,672	105	113	112	117	63.4	2.8	22.6	-6.3	2.0	74.3	...	30.8	20.2
1999	Q1	1,345,627	12,345	109	900	795	86		2,107	2,538	104	118	114		5.4	-3.7	-3.4	-2.1		7.7	38.6	-1.4	...
	Q2	1,530,412	15,265	100	1,045	928	84		2,026	2,523	102	115	116		13.7	-2.0	-2.6	1.3		12.2	34.2	-3.8	...
	Q3	1,717,485	16,113	107	1,137	1,048	83		1,957	2,505	105	114	118		12.2	3.1	-0.6	1.7		10.3	34.4	-2.2	...
	Q4	1,912,227	17,373	110	1,259	1,163	88		1,929	2,469	106	114	127		11.3	0.6	0.3	7.8		3.2	37.7	-7.0	...
	Average	1,626,438	15,274	106	1,085	984	85	97	2,005	2,509	104	115	119	121	44.8	-0.5	2.3	6.0	3.2	36.6	...	-3.5	-0.9
2000	Q1	2,063,800	18,753	110	1,384	1,261	84		1,905	2,438	104	114	123		7.9	-1.9	-0.5	-3.2		11.5	42.6	2.8	...
	Q2	2,112,989	20,403	104	1,495	1,364	93		1,908	2,442	98	108	136		2.4	-5.2	-5.3	10.2		-7.1	18.0	-14.1	...

Source:

Table 15. Romania: Population, Labor Force, and Employment, 1993-98

(In thousands of persons; end of year)

	1993	1994	1995	1996	1997	1998
Population	22,748	22,712	22,656	22,582	22,526	22,489
<i>Of which:</i>						
Working age 1/	13,126	13,188	13,228	13,283	13,328	13,365
<i>Of which:</i>						
Labor force	10,245	10,242	9,513	9,049	8,927	8,869
Nonworking age	9,622	9,524	9,428	9,299	9,198	9,124
<i>Of which:</i>						
Labor force 2/	982	993	979	987	977	968
Total employment	10,062	10,011	9,493	9,379	9,023	8,813
<i>Of which:</i>						
In the state and cooperative sector 3/ (in percent)	56.3	50.8	49.3	48.5	42.5	38.2
Total unemployed	1,165	1,224	998	658	881	1,025.0
Percent of labor force						
<i>Of which:</i>						
Receive benefits (in percent)	9.5	9.5	7.4	4.6	6.6	8.1
Recipients of unemployment benefits	1,066	1,068	774	462	656	793
Civilian labor force (total)	11,227	11,235	10,491	10,037	9,904	9,838
Labor force						
Participation rate in percent 4/	78.1	77.7	71.9	68.1	67.0	66.4

Sources: Data provided by the Ministry of Labour and Social Protection and the National Commission for Statistics

1/ Includes women age 16 to 54 and men age 16 to 59; women age 55 to 56 and men age 60 to 61 working in the agricultural sector, women age 55 to 56 and men age 60 to 61 who are still employed; women age 55 to 56 and men age 60 to 61 who are still employed.

2/ Excluding military personell and staff of public organizations, but including nondependent and private sector employment

3/ State and cooperative sector include the following type of ownership: public, co-operative and community

4/ Working age labor force as a proportion of population of working age.

Table 16. Romania: Monthly Consumer Price Index, 1996-2000

(October 1990 = 100)

		CPI	Food	Non-food	Services	Monthly Inflation (in percent)
Weight (percent)	1996	100.0	47.1	40.9	12.0	
	1997	100.0	47.9	40.3	11.8	
	1998	100.0	47.9	40.3	11.8	
	1999	100.0	50.4	37.3	12.3	
1996	December	17,052	18,634	16,331	15,035	10.3
1997	January	19,386	20,609	19,121	17,205	13.7
	February	23,025	25,804	21,482	20,079	18.8
	March	30,097	33,914	27,392	27,795	30.7
	April	32,174	35,775	29,556	30,656	6.9
	May	33,545	36,770	31,442	31,384	4.3
	June	34,316	37,156	32,187	33,459	2.3
	July	34,553	36,981	32,747	33,997	0.7
	August	35,768	38,408	33,637	35,612	3.5
	September	36,952	39,215	34,710	38,375	3.3
	October	39,346	41,548	36,807	41,990	6.5
	November	41,026	43,264	38,316	44,144	4.3
	December	42,872	45,769	39,619	45,685	4.5
1998	January	44,960	47,814	40,729	51,003	4.9
	February	48,193	51,494	43,573	54,187	7.2
	March	50,002	52,780	45,843	56,257	3.8
	April	51,365	53,892	46,889	59,446	2.7
	May	52,536	54,281	48,823	60,771	2.3
	June	53,196	54,259	50,087	61,725	1.3
	July	53,908	53,737	51,390	64,503	1.3
	August	54,251	53,206	52,357	65,705	0.6
	September	55,717	54,625	53,272	69,076	2.7
	October	57,878	55,499	56,006	73,599	3.9
	November	58,984	56,492	57,052	75,276	1.9
	December	60,265	57,888	58,141	76,843	2.2
1999	January	62,079	59,312	59,583	81,446	3.0
	February	63,863	60,782	61,601	83,636	2.9
	March	67,925	63,630	67,043	87,862	6.4
	April	71,222	66,942	69,549	93,748	4.8
	May	75,006	69,043	71,909	108,909	5.3
	June	78,827	69,356	77,130	121,803	5.1
	July	80,129	68,557	79,107	129,073	1.7
	August	81,105	68,580	80,880	131,140	1.2
	September	83,691	71,058	83,241	134,920	3.2
	October	87,174	73,489	86,235	144,164	4.2
	November	90,651	75,990	90,834	147,768	4.0
	December	93,297	79,127	93,131	149,643	2.9
2000	January	97,318	84,476	95,329	154,597	4.3
	February	99,427	87,056	96,595	157,754	2.2
	March	101,209	89,137	97,769	160,433	1.8
	April	106,051	91,178	102,993	174,709	4.8
	May	107,982	92,919	104,968	177,253	1.8
	June	111,042	96,357	108,117	178,671	2.8
	July	115,791	101,386	112,334	184,211	4.3
	August	117,918	102,580	114,672	189,209	1.8

Source: Data provided by the Romanian authorities.

Table 17. Romania: Industrial Producer Prices, 1996-2000 1/

(1992=100)

	PPI	Extractive industry	Processing industry	Electricity production	Monthly PPI inflation (in percent)
1996 December	1,579	1,221	1,692	1,169	2.4
1997 January	1,720	1,237	1,871	1,182	8.9
February	2,013	1,269	2,246	1,183	17.0
March	3,071	3,793	2,976	3,079	52.6
April	3,232	3,877	3,164	3,136	5.2
May	3,419	4,469	3,282	3,424	5.8
June	3,571	5,276	3,371	3,438	4.4
July	3,626	5,279	3,439	3,449	1.5
August	3,648	5,284	3,466	3,452	0.6
September	3,737	5,285	3,581	3,456	2.5
October	3,801	5,288	3,663	3,458	1.7
November	3,932	5,327	3,796	3,652	3.4
December	4,014	5,331	3,898	3,673	2.1
(1996=100)					
1997 January	138	126	141	126	
February	159	130	167	127	15.0
March	240	352	216	317	51.2
April	252	357	229	329	5.1
May	262	369	237	355	4.1
June	269	401	241	356	2.5
July	274	402	247	357	1.9
August	277	402	251	358	1.0
September	282	402	257	359	1.9
October	286	403	263	359	1.6
November	295	410	269	380	2.9
December	300	410	275	387	2.0
1998 January	309	413	286	390	3.0
February	318	415	296	394	2.7
March	323	416	302	395	1.7
April	330	421	310	400	2.2
May	335	418	313	417	1.4
June	337	418	315	425	0.8
July	338	395	317	429	0.2
August	340	395	320	430	0.7
September	345	410	324	430	1.3
October	349	388	331	437	1.2
November	355	399	337	438	1.7
December	360	403	342	438	1.5
1999 January	369	422	351	441	2.5
February	383	445	361	483	3.9
March	409	503	380	528	6.7
April	431	534	404	530	5.4
May	446	541	422	534	3.5
June	478	631	438	630	7.2
July	492	650	450	652	3.0
August	510	706	466	658	3.7
September	527	717	486	659	3.3
October	548	783	503	681	4.1
November	564	787	519	701	2.9
December	585	814	544	702	3.8
2000 January	599	822	559	704	2.3
February	616	842	578	706	2.8
March	632	881	595	712	2.7
April	651	928	614	713	3.0
May 2/	664	936	629	714	2.0

Source: National Statistics Commission.

1/ The data for the period 1995-97 have been calculated for the total output delivered to the domestic market and to exports; for the year 1998, the data refer to the output delivered to the domestic market.

2/ Provisional data

Table 18. Romania: Private Sector Share of GDP, 1993-99

(In percent of GDP)

	1993	1994	1995	1996	1997	1998	1999
GDP, total	34.8	38.9	45.3	54.9	60.6	61.0	61.5
<i>Of which:</i>							
Industry	5.8	14.2	9.8	12.8	13.0	12.5	13.5
Agriculture and forestry	17.2	25.5	17.6	17.3	17.4	14.0	13.5
Construction	1.4	5.5	3.8	4.5	4.0	4.1	3.8
Trade, other	10.4	30.4	21.0	24.4	27.5	31.2	31.7

Source: National Statistics Commission.

Table 19. Romania: Private Ownership in Selected Sectors, 1993-99

(In percent)

	1993	1994	1995	1996	1997	1998	1999
Agriculture	83.5	89.3	89.0	90.1	96.8	95.9	97.2
Industry	17.4	23.3	29.9	38.5	42.1	45.6	48.7
Construction	26.8	51.6	57.8	69.3	76.6	77.9	78.0
Services	29.3	39.1	58.1	66.7	71.5	72.7	73.0
Total private sector share of GDP	34.8	38.9	45.3	54.9	60.6	61.0	61.5

Source: National Statistics Commission.

Table 20. Romania: Ownership Structure of the Enterprise Sector, 1994-96

	1994	1995	1996
Total	672,620	720,899	615,307
Private companies	421,676	440,603	548,873
Family businesses	38,346	63,367	82,533
Self-employed	162,454	162,497	172,497
State-owned companies	6,963	5,143	7,811
Régies autonomes	81	83	82
Foreign investors	43,100	49,206	48,330

Source: Data provided by the Romanian authorities.

Table 21. Romania: Market Privatizations of Enterprises, 1993-1st. Semester 2000

Size of Companies	Total Original Companies 1/	Original No. of Employees	Companies presently held by SOF 2/ (1st sem.2000)	Companies privatized by years 3/								Total privatized companies
				1993	1994	1995	1996	1997	1998	1999	1st sem. 2000	
Total	6,381	4,040,757	8,482	264	595	620	1,245	1,163	1,267	1,401	609	7,164
Small	3,124	497,096	7,244	238	472	322	984	952	912	906	458	5,244
Medium	2,549	1,753,828	994	24	110	269	236	165	276	425	137	1,642
Large	708	1,789,833	244	2	13	29	25	46	79	70	14	278

Source: State Ownership Fund.

1/ Number of original companies to be offered for privatization.

2/ The increased number of companies in State Ownership Fund portfolio is due to inclusion of new companies resulted from division of some original companies and from spinning-off from the Regies Autonomes.

3/ The listed data are from the annually reports drafted by the end of each year.

Table 22. Romania: Summary of Consolidated General Government, 1993-99

(In billions of lei)

	1993	1994	1995	1996	1997	1998	1999
Total revenue	6,700	15,537	22,642	31,597	72,386	111,000	173,634
Current	6,652	15,476	22,580	31,443	71,802	110,867	173,337
Tax	6,269	14,042	20,804	29,257	67,000	103,992	164,026
Direct tax	4,332	10,028	14,117	19,523	44,248	63,467	100,813
Profits	754	1,911	2,811	3,548	10,780	11,067	17,037
Wages & Salaries 1/	1,325	3,221	4,583	6,656	13,946	18,577	28,312
Social security 2/	2,137	4,602	5,885	8,186	17,671	29,940	47,188
Other direct tax	116	295	838	1,132	1,852	3,882	8,276
Indirect tax	1,937	4,014	6,687	9,734	22,752	40,525	63,213
VAT 3/	726	2,268	3,779	5,359	11,681	22,493	32,471
Customs	269	562	1,043	1,674	3,353	5,741	7,847
Excises	744	775	1,054	1,485	4,289	8,431	16,958
Other indirect tax	198	409	811	1,216	3,429	3,859	5,937
Nontax	383	1,434	1,776	2,186	4,802	6,875	9,311
Capital 4/	48	61	62	154	584	133	297
Total expenditure	6,771	16,643	25,061	36,810	85,639	131,123	193,567
Current	5,786	13,757	20,840	30,783	71,859	115,394	177,835
Goods and services	2,335	5,924	9,078	12,873	26,774	42,738	68,800
Wages and salaries	1,333	3,236	4,694	6,568	12,344	18,671	26,259
Other	1,002	2,688	4,384	6,305	14,430	24,067	42,542
Interest	188	672	989	1,840	9,659	17,450	28,796
Subsidies and transfers	3,262	7,161	10,773	16,070	35,426	55,206	80,239
Subsidies and bonuses	1,366	1,913	2,972	4,729	6,364	6,211	9,303
Transfers	1,895	5,248	7,801	11,341	29,062	48,995	70,936
Capital	844	2,729	3,802	5,682	12,106	13,530	15,015
Lending minus repayments	141	157	419	345	1,674	2,198	717
Overall balance	-71	-1,106	-2,419	-5,213	-13,253	-20,123	-19,933

Sources: Ministry of Finance; and Fund staff estimates.

1/ Includes a 7 percent tax on payroll earmarked for the Health Fund.

2/ Comprises the State Social Security Fund, the Unemployment Fund, the Risk and Accident Fund, the Supplementary Pension Fund, the Farmers Social Security Fund, the Health Fund, and the National Health Insurance House.

3/ The value added tax was introduced in July 1993 to replace the turnover tax.

4/ Excluding privatization receipts.

Table 23. Romania: Summary of Consolidated General Government, 1993-99

(In percent of GDP)

	1993	1994	1995	1996	1997	1998	1999
Total revenue	33.4	31.2	31.4	29.2	28.6	30.1	33.3
Current	33.2	31.1	31.3	29.0	28.4	30.1	33.2
Tax	31.3	28.2	28.8	27.0	26.5	28.2	31.4
Direct tax	21.6	20.1	19.6	18.0	17.5	17.2	19.3
Profits	3.8	3.8	3.9	3.3	4.3	3.0	3.3
Wages & Salaries 1/	6.6	6.5	6.4	6.1	5.5	5.0	5.4
Social security 2/	10.7	9.2	8.2	7.6	7.0	8.1	9.0
Other direct tax	0.6	0.6	1.2	1.0	0.7	1.1	1.6
Indirect tax	9.7	8.1	9.3	9.0	9.0	11.0	12.1
VAT 3/	3.6	4.6	5.2	4.9	4.6	6.1	6.2
Customs	1.3	1.1	1.4	1.5	1.3	1.6	1.5
Excises	3.7	1.6	1.5	1.4	1.7	2.3	3.3
Other indirect tax	1.0	0.8	1.1	1.1	1.4	1.0	1.1
Nontax	1.9	2.9	2.5	2.0	1.9	1.9	1.8
Capital 4/	0.2	0.1	0.1	0.1	0.2	0.0	0.1
Total expenditure	33.8	33.4	34.7	34.0	33.9	35.6	37.1
Current	28.9	27.6	28.9	28.4	28.4	31.3	34.1
Goods and services	11.7	11.9	12.6	11.9	10.6	11.6	13.2
Wages and salaries	6.7	6.5	6.5	6.1	4.9	5.1	5.0
Other	5.0	5.4	6.1	5.8	5.7	6.5	8.2
Interest	0.9	1.4	1.4	1.7	3.8	4.7	5.5
Subsidies and transfers	16.3	14.4	14.9	14.8	14.0	15.0	15.4
Subsidies and bonuses	6.8	3.8	4.1	4.4	2.5	1.7	1.8
Transfers	9.5	10.5	10.8	10.5	11.5	13.3	13.6
Capital	4.2	5.5	5.3	5.2	4.8	3.7	2.9
Lending minus repayments	0.7	0.3	0.6	0.3	0.7	0.6	0.1
Overall balance	-0.4	-2.2	-3.4	-4.8	-5.2	-5.5	-3.8
GDP (in billions of lei)	20,036	49,773	72,136	108,391	252,926	368,261	521,726

Sources: Ministry of Finance; and Fund staff estimates.

1/ Includes a 7 percent tax on payroll earmarked for the Health Fund.

2/ Comprises the State Social Security Fund, the Unemployment Fund, the Risk and Accident Fund, the Supplementary Pension Fund, the Farmers Social Security Fund, the Health Fund, and the National Health Insurance House.

3/ The value added tax was introduced in July 1993 to replace the turnover tax.

4/ Excluding privatization receipts.

Table 24. Romania: Consolidated General Government Expenditures by Function, 1993-99

	1993	1994	1995	1996	1997	1998	1999
(In billions of lei)							
Total expenditures	6,771	16,643	25,061	36,810	85,639	131,123	193,567
General public services	322	516	918.3	764.2	1750.4	3725.2	5582.8
Defense affairs	420	1185	1525	2058	5878	8494	8415.9
Public order and safety affairs	249	785	1108	1609	2858	5484	7616
Education affairs	637	1545	2471	3878	8262	12147	16365
Health affairs	545	1529	2075	3030	6417	11046	18926
Recreational, cultural affairs	52	179	384	586	1341	2121	2680
Social security and welfare	1814	4495	6730	9682	24178	39314	58800
Housing and community services	351	890	1461	2078	4444	6196.7	9307.7
Environment	0	...	...	0	159.1	282.1	649.8
Industry	818	1279	1744	2364	2737.5	2694.1	4065.9
Agriculture, forestry, fishing	588	1234	1658	2665	3647	4512	5091.7
Transportation and communication	378	1150	1710	2418	5911	8767	15492.2
Other economic affairs and services	260	790	877	1623	3688	2024	2585
Research affairs	0	336	387.7	456.8	762.5	1049.7	1019.4
Other expenditures	148.6	58	1023	1758	5023.5	6493.3	9850
Interest payments	188	672	989	1840	8582	16772.7	27119.6
(In percent of GDP)							
Total expenditures	33.8	33.4	34.7	34.0	33.9	35.6	37.1
General public services	1.6	1.0	1.3	0.7	0.7	1.0	1.1
Defense affairs	2.1	2.4	2.1	1.9	2.3	2.3	1.6
Public order and safety affairs	1.2	1.6	1.5	1.5	1.1	1.5	1.5
Education affairs	3.2	3.1	3.4	3.6	3.3	3.3	3.1
Health affairs	2.7	3.1	2.9	2.8	2.5	3.0	3.6
Recreational, cultural affairs	0.3	0.4	0.5	0.5	0.5	0.6	0.5
Social security and welfare	9.1	9.0	9.3	8.9	9.6	10.7	11.3
Housing and community services	1.8	1.8	2.0	1.9	1.8	1.7	1.8
Environment	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Industry	4.1	2.6	2.4	2.2	1.1	0.7	0.8
Agriculture, forestry, fishing	2.9	2.5	2.3	2.5	1.4	1.2	1.0
Transportation and communication	1.9	2.3	2.4	2.2	2.3	2.4	3.0
Other economic affairs and services	1.3	1.6	1.2	1.5	1.5	0.5	0.5
Research affairs	0.0	0.7	0.5	0.4	0.3	0.3	0.2
Other expenditures	0.7	0.1	1.4	1.6	2.0	1.8	1.9
Interest payments	0.9	1.4	1.4	1.7	3.4	4.6	5.2
GDP (billions of lei)	20,036	49,773	72,136	108,391	252,926	368,261	521,726

Sources: Ministry of Finance; and Fund staff estimates.

Table 25. Romania: Summary of Consolidated General Government Balances, 1993-99

(In billions of lei)

	1993	1994	1995	1996	1997	1998	1999
1991 Program definition							
1. Central government	-521	-2,070	-2,970	-5,359	-9,062	-10,401	-13,656
2. Local government	17	32	72	43	98	73	378
3. State social security fund 1/	140	51	-165	-187	-58	-3,207	-1,243
4. Supplementary pension fund	86	133	77	-5	-42	...	...
5. Self financing bodies	-3	45	...	...	...	...	...
Total 1991 deficit (lines 1-5)	-281	-1,810	-2,986	-5,507	-9,064	-13,535	-14,521
in percent of GDP	-1.4	-3.6	-4.1	-5.1	-3.6	-3.7	-2.8
1992 Program definition							
7. Education fund	6	8	18	...	...	...	130
8. Health fund	12	13	2	24	38	-24	53
9. Research fund	14	2	-34	...	...	...	...
10. Unemployment fund	196	583	705	885	331	-646	-2,047
Total 1991 deficit (lines 1-10)	-53	-1,203	-2,295	-4,599	-8,695	-14,205	-16,385
in percent of GDP	-0.3	-2.4	-3.2	-4.2	-3.4	-3.9	-3.1
Current definition							
12. Local budget investment fund	...	...	...	...	...	...	...
13. Farmers social security fund	42	4	-51	0	0	...	...
14. Customs fund	32	103	188	129	451	317	453
15. Risk and accident fund	0	-21	-11	1	0	3	56
16. Energy fund	...	10	7	-15	45	8	43
17. Road fund	2	13	-5	8	197	-154	154
18. Agricultural fund	23	-11	...	...	...	...	...
19. Stock reevaluation fund	-2	...	...	...	...	...	...
20. Gold/silver reevaluation fund	-73	...	...	...	...	...	...
21. Restructuring fund	...	...	...	...	...	...	...
22. Counterpart fund, BOP loans	-70	...	...	...	...	...	...
23. External loans to ministries	-21	-186	-239	-386	-2,571	-5,603	-7,431
24. SOF	45	94	298	448	780	3,418	-188
25. Protection of insured people fund	...	...	...	3	6	14	28
26. Health Social Insurance fund	...	...	...	...	...	969	2,479
27. Special fund for tourism development	...	...	...	...	...	19	35
28. Special fund for civil aviation	...	...	...	...	...	...	95
29. Special fund for solidarity	...	...	...	...	...	...	15
Total broad definition (lines 1-29)	-74	-1,196	-2,108	-4,412	-9,787	-15,215	-20,649
Adjustments	3	90	-311	-801	-3,465	-4,908	716
in percent of GDP	-0.4	-2.2	-3.4	-4.8	-5.2	-5.5	-3.8
Memorandum item:							
GDP	20,036	49,773	72,136	108,391	252,926	368,261	521,726

Source: Ministry of Finance and Fund staff estimates.

1/ Including subsidies from the state budget.

Table 26. Romania: NBR Refinancing Practices, 1994-99

		Total Credits	Of which				Directed Credit to Agriculture 3/	Shares in Total NBR Credit				Directed Credit to Agriculture
			Directed Lines 1/	Auction	Overdraft	Troubled Banks 2/		Directed Lines	Auction	Overdraft	Troubled Banks	
			(In billions of lei)					(In percent)				
1994	Q1	1,891	1,340	680	159	0	771	70.9	36.0	8.4	0.0	40.8
	Q2	2,026	1,663	820	0	0	866	82.1	40.5	0.0	0.0	42.7
	Q3	2,064	1,822	650	0	0	1,183	88.3	31.5	0.0	0.0	57.3
	Q4	2,331	2,153	800	0	34	1,672	92.4	34.3	0.0	1.5	71.7
1995	Q1	2,074	1,940	790	0	0	1,502	93.5	38.1	0.0	0.0	72.4
	Q2	2,146	1,601	825	186	14	1,165	74.6	38.5	8.7	0.7	54.3
	Q3	2,790	1,968	1,050	398	0	1,653	70.6	37.6	14.3	0.0	59.2
	Q4	3,679	1,988	1,010	288	875	1,887	54.0	27.5	7.8	23.8	51.3
1996	Q1	3,707	1,994	950	73	1,342	1,812	53.8	25.6	2.0	36.2	48.9
	Q2	4,413	2,196	485	256	1,734	1,746	49.8	11.0	5.8	39.3	39.6
	Q3	5,029	2,883	380	0	1,866	2,292	57.3	7.6	0.0	37.1	45.6
	Q4	8,024	4,335	2,315	0	1,871	3,689	54.0	28.9	0.0	23.3	46.0
1997	Q1	5,429	2,135	300	0.6	1,875	2,613	39.3	5.5	0.0	34.5	48.1
	Q2	3,801	1,847	0	0	1,885	1,865	48.6	0.0	0.0	49.6	49.1
	Q3	2,720	781	0	0	1,885	784	28.7	0.0	0.0	69.3	28.8
	Q4	2,517	578	0	0	1,885	580	23.0	0.0	0.0	74.9	23.0
1998	Q1	586	586	0	0	0	534	100.0	0.0	0.0	0.0	91.1
	Q2	556	556	0	0	0	504	100.0	0.0	0.0	0.0	90.6
	Q3	556	556	0	0	0	504	100.0	0.0	0.0	0.0	90.6
	Q4	556	556	0	0	0	504	100.0	0.0	0.0	0.0	90.6
1999	Q1	5,237	555	0	0	4,682	503	10.6	0.0	0.0	89.4	9.6
	Q2	5,678	555	0	0	5,123	503	9.8	0.0	0.0	90.2	8.9
	Q3	516	516	0	0	0	503	100.0	0.0	0.0	0.0	97.5
	Q4	2,433	503	0	0	1,930	503	20.7	0.0	0.0	79.3	20.7

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

1/ Directed lines for various sectors of the economy, at subsidized interest rates.

2/ NBR special credits to banks with problems.

3/ Including all NBR credits to Banca Agricola.

Table 27. Romania: Balance Sheet of the National Bank of Romania, 1994-2000

(In billions of lei, end of period)

	1994	1995	1996	1997	1998		1999		2000
					June	December	June	December	June
Assets	9,291	12,760	15,969	36,165	37,024	41,927	47,981	69,729	82,867
Foreign assets	2,742	2,839	5,647	26,508	27,874	25,207	20,093	45,455	58,001
Gold	1,704	2,011	3,429	8,998	9,340	10,155	10,245	17,629	17,801
Convertible FX	1,037	828	2,198	17,510	18,534	15,052	9,848	27,826	40,200
Other				0	0	0	0	0	0
Claims on government	1,906	3,520	0	3,271	3,116	9,142	12,183	21,412	20,039
State budget	1,771	3,299	0	0	0	0	0	0	0
Treasury bills				843	307	3,898	630	0	33
T-bills in foreign currency				0	0	0	1,489	4,573	2,029
Other claims on central government	135	221	0	2,428	2,809	5,244	10,064	16,839	17,977
Claims on DMBs	2,334	4,515	8,822	5,251	5,346	5,532	9,138	4,383	2,935
Refinancing credits	2,331	3,678	8,024	2,516	2,441	2,470	7,628	4,383	2,935
Memo: litigious debtors				1,885	1,885	1,914	1,950	1,950	1,680
FX deposits with DMBs	3	836	798	2,735	2,905	3,062	1,509	0	0
Other assets (net)	2,311	2,722	1,500	1,134	689	2,046	6,567	-1,521	1,893
Liabilities	9,291	12,760	15,969	36,165	37,024	41,927	47,981	69,729	82,867
Reserve money	3,245	4,691	7,877	10,587	15,764	19,090	20,097	35,982	44,177
Currency outside NBR	2,398	3,951	5,902	9,627	10,888	12,297	14,805	18,646	22,787
DMB current accounts at NBR	848	739	1,975	960	4,876	6,793	5,292	17,336	21,389
Deposit auctions				6,792	1,871	2,223	2,847	2,662	404
NBR FX liabilities to DMBs	564	1,260	1,131	3,926	4,792	4,427	7,738	13,797	12,970
Foreign liabilities	2,243	2,889	7,094	13,678	14,067	15,970	13,128	14,195	16,787
Government deposits	2,163	3,800	-275	670	1,688	23	3,892	2,847	7,880
Deposits				0	0	0	0	0	5,383
General account of Treasury				670	1,688	23	3,892	2,847	2,497
Capital accounts	1,075	120	141	512	-1,157	194	278	246	650
Capital and reserves	81	120	141	193	193	194	196	246	246
Profits	994	0	0	318	-1,351	0	82	0	403
Gold revaluation deposits	0	0	0	0	0	0	0	0	0

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

Table 28. Romania: Commercial Banks' Specific Provisions, 1995-99

	1995		1996		1997		1998		1999	
	June	December	June	December	June	December	June	December	June	December
	(In billions of lei)									
Actual provisions made by banks	519	1,785	2,412	2,514	5,046	7,313	12,895	16,208	16,034	11,056
Provisions needed according to NBR	989	2,550	3,370	4,218	8,903	10,001	15,991	20,950	16,418	9,793
Remaining gap	470	765	958	1,705	3,858	2,688	3,096	5,742	384	-263
Memorandum items:										
Non-performing loans and interest arrears, gross	3,801	7,793	10,780	11,499	21,122	21,075	30,228	39,148	32,520	21,038
of which: with guarantees or collateral	2,731	5,138	7,285	7,187	12,163	10,682	14,084	16,985	16,035	11,459
Non-performing loans and interest arrears, net	1,070	2,655	3,495	4,311	8,959	10,393	16,144	22,163	16,485	9,579
(In percent)	(In percent)									
Ratio, of provisions made to provisions needed	52.4	70.0	71.6	59.6	56.7	73.1	80.6	73.8	97.7	102.7
Ratio of provisions made to gross portfolio	13.6	22.9	22.4	9.4	12.8	18.2	24.8	24.2	24.2	16.9

Source: National Bank of Romania.

Table 29. Romania: The Role of the Major State Banks in the Banking System, 1994-99

(End of period; bank share as percent of total)

	Total credit to Non-government sector						Total deposits						Total assets					
	1994	1995	1996	1997	1998	1999	1994	1995	1996	1997	1998	1999	1994	1995	1996	1997	1998	1999
Total	81.3	76.1	76.0	73.0	67.5	53.3	73.9	71.3	72.8	70.3	68.9	59.8	73.7	72.8	71.8	68.3	66.5	57.0
Banca Agricola	37.8	27.8	20.1	5.3	5.2	2.1	11.7	11.3	13.7	9.9	8.1	4.4	22.7	19.0	15.7	9.7	7.3	4.2
Romanian Commercial Bank	23.5	20.2	18.9	20.6	19.6	29.7	17.4	19.3	21.1	24.1	24.9	28.7	19.5	18.9	16.9	18.8	19.8	29.1
Romania Bank for Foreign Trade (Bancorex)	13.3	20.6	29.1	34.7	30.5	-	18.2	16.8	18.0	14.8	15.0	-	16.4	19.6	25.7	23.9	23.6	...
Romanian Bank for Development	6.5	7.4	7.6	10.3	9.8	18.5	10.2	8.8	8.9	9.6	9.3	14.1	7.4	6.7	7.1	7.5	7.7	13.1
Subtotal	0.2	0.1	0.3	2.1	2.4	3.0	15.9	15.1	11.1	11.9	11.6	12.6	7.7	8.6	6.4	8.4	8.1	10.6
Savings Bank (CEC)	0.2	0.1	0.3	2.1	2.4	3.0	15.9	15.1	11.1	11.9	11.6	12.6	7.7	8.6	6.4	8.4	8.1	10.6

Source: National Bank of Romania.

Table 30. Romania: Foreign Assets and Liabilities of the Banking System, 1993-2000

(In millions of U.S. dollars; end of period)

	1993	1994	1995	1996	1997		1998		1999		2000
					June	Dec.	June	Dec.	June	Dec.	June
National Bank of Romania											
Foreign assets	903	1,612	1,371	1,633	2,750	3,358	3,311	2,272	1,531	2,458	2,830
Gold 1/	858	1,016	1,036	1,081	1,113	1,158	1,202	904	912	932	940
Convert. foreign exchange (liquid)	40	536	278	542	1,646	2,208	2,117	1,374	623	1,530	1,893
Participation in foreign banks and other	4	60	57	5	0	0	0	0	0	0	0
Nonconvertible FX, net						-8	-8	-6	-4	-4	-3
Foreign liabilities	1,065	1,651	1,371	1,966	1,852	1,927	1,839	1,880	1,343	1,616	1,696
Use of fund resources	1,065	1,421	1,051	682	682	716	658	519	433	452	536
Short term						100	100	0	107	114	0
Medium and long term						1,111	1,081	1,065	314	294	296
Net foreign assets	-162	-39	0	-333	898	1,431	1,472	392	188	842	1,134
Commercial banks											
Foreign assets	1,020	1,545	1,310	1,618	1,184	1,674	1,211	1,574	1,278	1,250	1,363
Convertible foreign exchange	1,007	1,551	1,316	1,627	1,193	1,688	1,219	1,579	1,283	1,252	1,367
Liquid	806	1,494	1,245	1,552	1,114	1,610	1,132	1,493	1,204	1,161	1,270
Other	201	57	71	75	79	78	87	86	79	91	97
Nonconvertible foreign exchange, net	14	-6	-6	-9	-9	-14	-8	-5	-5	-2	-4
Foreign liabilities	553	678	790	1,226	1,007	1,135	1,150	801	740	610	523
Short term	355	273	212	604	333	267	300	188	243	221	226
Medium and long term	198	405	578	622	674	867	850	613	497	389	297
Net foreign assets	468	867	520	392	177	539	61	773	538	640	840
Excl. nonconvertible FX assets	454	873	526	401	186	553	69	778	543	642	844
Banking system											
Net foreign assets	305	828	520	59	1,075	1,970	1,533	1,165	726	1,482	1,974
Excluding nonconvertible FX assets	292	834	526	68	1,093	1,992	1,549	1,176	735	1,488	1,981

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

1/ Gold is valued at US\$383.55 per ounce.

Table 31. Romania: Stock Market Indicators, 1995-2000 (Q3)
Bucharest Stock Exchange

(Quarterly averages unless otherwise indicated)

	Number of trading days	Number of companies listed at end-quarter	Market capitalization (mill. US\$)	Number of transactions per trading day	Daily turnover (US\$)	Standard deviation of daily turnover
1995	5	9	100	75.800	192,875.000	97,157.340
1996						
Q1	14	13	99	346.143	238,697.000	171,680.900
Q2	23	13	54	216.522	48,793.000	38,811.020
Q3	24	13	53	196.208	22,046.000	12,569.840
Q4	23	17	61	140.739	12,446.000	5,221.789
1997						
Q1	29	25	92	1,528.030	220,117.000	192,813.700
Q2	55	44	618	4,298.600	1,427,315.000	1,257,553.000
Q3	66	62	707	2,573.260	1,566,343.000	778,046.600
Q4	57	75	632	2,749.950	1,116,893.000	559,455.900
1998						
Q1	62	92	785	2,548.190	1,235,012.000	813,501.400
Q2	63	104	652	2,464.760	1,095,174.000	542,752.000
Q3	66	113	330	1,602.610	432,955.000	277,733.100
Q4	64	126	357	1,366.520	305,684.000	172,848.800
1999						
Q1	63	126	275	1,434.430	394,163.000	555,813.300
Q2	64	127	300	992.875	178,935.000	150,626.200
Q3	66	126	434	985.591	484,064.572	166,916.900
Q4	60	126	317	3,084.250	954,330.958	427,274.100
2000						
Q1	63	125	327	2,961.980	327,585.000	253,959.600
Q2	64	122	315	2,114.340	574,587.000	2,523,622.000
Q3	13	123	349	1,428.770	187,590.000	178,343.300

Source: Bucharest Stock Exchange.

Table 32. Romania: Monetary Survey, 1994-2000

(End of period, in billions of lei unless otherwise stated)

	1994	1995	1996	1997				1998				1999				2000
				QI	QII	QIII	QIV	QI	QII	QIII	QIV	QI	QII	QIII	QIV	QI
Net foreign assets	1,110	-88	-379	7	6,886	12,869	15,091	11,954	11,817	11,806	13,820	9,179	10,391	21,105	25,502	28,947
(millions of U.S. dollars)	628	-34	-94	1	980	1,692	1,881	1,408	1,363	1,278	1,262	615	656	1,280	1,397	1,486
Of which: Commercial banks 1/	816	455	326	328	216	339	590	321	101	6	692	420	464	495	551	541
Net domestic assets 2/	9,539	18,366	30,714	37,859	37,070	38,657	47,054	51,856	57,661	63,262	78,710	91,585	93,107	93,066	108,620	107,157
Total credit	9,183	17,399	31,450	39,839	36,932	41,740	46,508	53,605	60,151	69,806	79,919	95,228	92,441	91,621	101,340	105,710
Credit to government*	-301	964	4,609	4,457	736	3,523	10,607	12,286	15,010	18,801	20,833	23,089	30,580	34,150	43,621	43,154
Of which: Bank rehabilitation bonds						3,375	7,875	8,171	8,171	8,171	8,171	8,171	16,718	23,935	31,521	29,437
Net credit to non-government	9,485	16,435	26,841	35,082	36,196	38,217	35,901	41,319	45,141	51,005	59,087	72,138	61,861	57,471	57,719	62,556
Of which: Foreign currency credit	2,050	4,860	9,898	18,499	20,606	23,319	19,649	22,823	25,138	28,325	34,814	46,472	37,030	32,660	33,275	36,590
(percent of total)	21.6	29.6	36.9	52.7	56.9	61.0	54.8	55.2	55.7	0.6	58.9	64.4	59.9	56.8	57.6	58.5
(millions of U.S. dollars)	1,160	1,885	2,453	2,644	2,932	3,066	2,451	2,688	2,899	3,066	3,179	3,114	2,338	1,981	1,823	1,878
Other items, net	356	967	-736	-1,680	139	-3,082	546	-1,749	-2,490	-6,544	-1,210	-3,642	665	1,446	7,280	1,447
Broad Money	10,649	18,278	30,335	37,866	43,957	51,527	62,145	63,810	69,478	75,068	92,530	100,764	103,498	114,171	134,122	136,105
Currency outside banks	2,201	3,761	5,383	4,741	6,363	8,359	9,200	8,198	10,300	11,231	11,525	11,523	13,888	15,560	17,372	16,070
Deposits	8,448	14,518	24,952	33,124	37,594	43,168	52,945	55,611	59,178	63,838	81,005	89,241	89,609	98,612	116,751	120,035
Of which: Leu deposits	6,090	10,386	17,866	19,293	24,519	27,802	35,265	36,166	39,090	41,896	50,803	50,253	50,719	56,450	66,269	68,815
Sight	2,693	3,819	6,580	4,965	6,172	7,543	11,131	8,728	8,468	8,826	11,988	9,041	9,838	10,094	13,654	11,188
Time	3,397	6,567	11,286	14,328	18,347	20,259	24,134	27,438	30,623	33,069	38,815	41,212	40,881	46,356	52,615	57,627
Foreign currency deposits	2,358	4,132	7,086	13,832	13,075	15,366	17,680	19,446	20,088	21,942	30,201	38,988	38,890	42,162	50,482	51,220
(millions of U.S. dollars)	1,335	1,603	1,756	1,977	1,861	2,020	2,204	2,290	2,317	2,375	2,758	2,612	2,455	2,557	2,765	2,629
NBR balance sheet																
Reserve money	3,245	4,691	7,877	6,438	7,454	9,912	10,587	13,059	15,764	18,561	19,090	19,010	20,097	25,613	35,982	36,353
Currency outside NBR	2,398	3,951	5,902	5,125	6,838	8,824	9,627	8,746	10,888	11,864	12,297	12,331	14,805	16,580	18,646	17,222
Bank lei deposits at NBR	848	739	1,975	1,313	616	1,087	960	4,314	4,876	6,697	6,793	6,679	5,292	9,033	17,336	19,131
Net foreign assets	-332	-1,261	-1,695	-2,288	5,369	10,291	10,358	9,229	10,942	11,140	6,920	2,910	3,032	12,822	14,785	18,565
(millions of U.S. dollars)	-188	-489	-420	-327	764	51,353	51,291	51,087	51,262	51,284	570	5195	5192	5785	5846	5945
Net domestic assets	3,578	5,951	9,572	8,726	2,085	-379	229	3,830	4,823	7,421	12,170	161,000	17,065	12,791	21,197	17,789
NBR refinancing	2,331	3,678	8,024	5,429	3,801	2,721	2,516	2,471	2,441	2,452	2,470	7,160	7,928	2,466	4,383	3,776
Memorandum items:																
Exchange rate (Lei per US\$, eop)	1,767	2,578	4,035	6,996	7,027	7,606	8,023	8,490	8,670	9,238	10,951	14,925	15,840	16,488	18,255	19,480
Real annual broad money growth	47.2	34.4	5.8	-25.9	-26.0	-18.3	-18.5	1.4	2	-3.4	5.9	16.2	0.5	1.3	-6.4	-9.3
Real annual credit growth	33.2	48.3	15.2	-22.6	-38.1	-35.8	-41.2	-18.4	5.1	10.9	22.2	30.8	3.7	-12.6	-18.1	-25.5
Velocity:																
Velocity of broad money	5.54	4.52	4.62	5.91	5.80	5.33	5.13	4.97	4.85	4.70	4.13	4.51	5.1	4.91	4.66	4.96
Velocity of broad lei money	7.11	5.83	6.03	9.31	8.26	7.60	7.17	7.14	6.83	6.65	6.13	7.36	8.17	7.78	7.47	7.95
Ratio of foreign currency deposits to broad money	22.1	22.6	23.4	36.5	29.7	29.8	28.5	30.5	28.9	29.20	32.6	38.7	37.6	36.9	37.6	37.6

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

1/ A reclassification of MF deposits from foreign liabilities to government deposits was made for Q197-QIV98 retroactively

2/ Equal to broad money minus convertible net foreign assets.

Table 33. Romania: Balance of Payments, 1993-99 1/

(In millions of U.S. dollars)

	1993	1994	1995	1996	1997 2/	1998	1999
Current account	-1,239	-516	-1,732	-2,611	-2,360	-3,112	-1,302
Trade account	-1,130	-483	-1,605	-2,494	-1,980	-2,625	-1,092
Exports	4,882	6,067	7,882	8,061	8,431	8,302	8,503
Imports	-6,012	-6,550	-9,487	10,555	10,411	-10,927	-9,595
Services account	-323	-328	-496	-710	-959	-1,104	-836
Receipts	799	1,132	1,510	1,626	1,604	1,472	1,513
Of which: Interest	56	102	59	65	175	204	55
Payments	-1,122	-1,460	-2,006	2,336	2,563	2,576	-2,349
Of which: Interest	-204	-233	-293	345	419	-574	-504
Unrequited transfers (net)	214	295	369	593	579	617	626
Capital account	1,412	1,294	1,298	1,997	3,004	2,263	1,154
Direct investment and capital transfers	97	347	404	608	2,075	2,129	1,051
Medium- and long-term credit received (net)	957	870	627	761	965	437	320
Receipts	1,105	1,165	999	1,209	2,338	1,940	1,818
Multilateral	263	375	254	342	687	351	443
Bilateral	728	529	425	3	0	20	51
Other	343	182	293	864	1,551	1,569	1,324
Payments	-147	-295	-372	448	1,273	1,519	1,497
Multilateral	0.0	-3	-17	39	79	328	331
Bilateral	-84	-154	-176	17	20	17	117
Other	-63	-138	-179	392	1,174	1,174	1,049
Credit extended (net)	-11	24	84	7	35	31	34
Bilateral clearing agreements	-128	-9	-25	-4	19	0	-4
Short-term (net) 3/	498	62	209	625	1,197	293	369
Overall balance	173	778	-434	-614	1,931	-135	473
Financing	-173	-778	434	614	-1,931	135	-473
Net foreign assets NBR (increase, -)	54	-341	202	426	-1,710	222	-673
of which: IMF net	0	217	-315	-356	28	-126	-67
Net foreign assets of commercial banks (increase, -)	-227	-437	231	188	-221	-87	200

Sources: Romanian authorities; and Fund staff estimates.

1/ Excludes transactions in transferable rubles.

2/ Including portfolio investment.

3/ Including errors and omissions.

Table 34. Romania: Composition of Exports, 1993-99

(In percent of total)

	1993	1994	1995	1996	1997	1998	1999
Live animal and animal products	3.3	3.6	2.1	1.9	2.4	1.1	1.4
Vegetable products	1.2	1.0	2.6	4.6	1.9	2.2	2.9
Fats and animal or vegetable edible oil:	1.3	0.8	1.0	0.9	1.5	0.8	0.6
Foodstuffs, beverages, tobacco	1.0	1.1	0.9	1.3	1.2	1.1	0.7
Mineral products	11.7	11.6	9.2	8.6	7.6	6.1	5.9
Chemicals	7.0	7.9	9.1	8.5	6.6	4.0	3.8
Plastic, rubber, and articles	1.7	2.3	2.6	2.4	2.2	2.1	2.1
Wood products, cork, and wattles	3.6	3.6	3.3	3.6	4.0	4.6	5.8
Textiles and textile articles	16.0	18.8	19.8	21.4	23.0	26.0	25.8
Footwear	3.3	5.0	5.4	6.2	6.4	7.3	8.0
Articles of stone, cement, ceramics, glass, etc.	2.0	1.8	1.9	1.9	1.8	1.9	1.9
Basic metals and articles thereof	19.6	17.3	18.2	15.7	18.5	19.1	15.4
Machinery, appliances, and electrical equipment	9.0	8.4	8.3	8.3	8.7	9.5	11.4
Transport equipment	8.3	6.4	5.4	5.4	5.3	5.1	5.5
Other	11.0	10.4	10.2	9.3	8.9	9.1	8.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Sources: Romanian authorities; and Fund staff estimates.

Table 35. Romania: Direction of Trade, 1993-99

(In percent of total)

	1993		1994		1995		1996		1997		1998		1999	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
Developed countries	48.7	57.6	56.0	60.4	61.7	60.1	62.2	61.6	64.8	62.7	72.2	66.3	72.2	68.5
<i>Of which :</i>														
Austria	1.6	2.5	1.6	2.7	2.0	3.1	2.1	3.1	2.1	2.7	3.0	2.9	2.9	2.9
France	4.5	7.8	5.1	5.1	5.8	5.2	5.7	4.9	5.5	5.7	5.9	6.9	6.2	6.7
Federal Republic of Germany	14.3	15.8	16.1	18.0	18.1	17.5	18.4	17.6	16.8	16.4	19.6	17.4	17.8	17.1
Italy	8.3	9.4	12.9	11.8	15.7	13.3	17.1	15.3	19.5	15.8	22.0	17.4	23.3	19.6
Switzerland	2.4	2.3	0.7	2.1	0.8	1.9	0.5	1.7	0.5	1.3	0.6	1.1	0.7	1.2
United Kingdom	3.8	2.6	3.3	3.1	3.0	2.9	3.1	2.9	3.5	3.4	3.7	3.4	4.9	4.2
United States	1.4	5.7	3.1	6.5	2.5	4.1	2.4	3.8	3.8	4.1	3.8	4.2	3.7	3.5
Developing countries	51.3	42.4	44.0	39.6	38.3	39.9	37.8	38.4	35.2	37.3	27.8	33.7	27.8	31.5
<i>Of which :</i>														
Bulgaria	2.1	1.1	1.7	0.9	0.9	0.7	0.9	0.6	0.7	0.5	0.9	0.4	1.6	0.5
China	8.6	1.4	4.5	0.9	2.3	0.9	1.1	1.0	0.5	1.1	0.3	1.5	0.4	1.4
Czech and Slovak Republics	0.3	0.9	1.4	1.2	0.5	1.1	0.5	1.2	0.5	1.5	0.4	2.5	0.3	2.5
Hungary	2.4	2.6	2.6	2.4	2.2	3.1	2.1	2.5	2.2	3.1	2.6	4.6	3.2	4.0
Poland	0.4	0.5	0.2	0.4	0.5	0.6	0.5	0.7	1.2	0.8	1.0	1.2	1.4	1.5
Former Soviet Union	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Russia	4.5	11.7	3.4	13.8	2.0	12.0	2.0	12.5	3.0	12.0	1.0	9.0	0.6	6.8
Ukraine	2.1	2.0	1.6	2.1	1.7	1.9	0.8	1.6	1.1	1.2	0.6	1.4	0.7	1.0
Moldova	1.9	1.3	1.0	1.3	1.0	1.0	1.2	0.7	1.5	0.6	1.6	0.5	1.2	0.4
Former Yugoslavia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serbia	0.2	1/	0.3	1/	0.4	1/	1.7	0.3	1.7	0.5	1.4	0.5	1.0	0.5
FYR Macedonia	0.4	0.3	0.4	0.3	0.5	0.2	0.1	0.1	0.1	0.1	0.1	1/	0.1	1/
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Sources: Data provided by the Romanian authorities; and Fund staff calculations.

1/ Under 0.1 percent.

Table 36. Romania: Composition of Imports, 1993-99

(In percent of total)

	1993	1994	1995	1996	1997	1998	1999
Live animals and animal products	1.0	1.4	1.3	0.6	0.6	1.8	1.2
Vegetable products, cereals	7.3	2.0	1.5	1.5	1.5	1.9	2.2
Foodstuffs, beverages, and tobacco	6.1	5.5	5.7	5.3	4.0	4.4	4.0
Mineral products	28.7	26.8	24.2	23.5	21.3	14.3	12.0
Chemicals	7.8	7.9	9.0	8.6	8.3	8.7	9.4
Plastic, rubber, and articles	3.1	3.2	3.8	3.9	3.9	4.3	4.6
Crude hides and skins, leather, furs, etc	1.7	2.1	2.1	2.3	2.5	2.6	2.9
Textiles and textile articles	10.1	11.4	11.8	11.7	13.9	15.4	18.6
Footwear	0.7	0.9	1.0	1.1	1.4	1.7	1.8
Basic metals and articles thereof	4.3	4.9	5.3	6.2	5.9	6.7	6.6
Machinery, appliances, and electrical equipment	17.6	20.4	20.6	21.9	23.0	23.0	23.4
Transport equipment	4.3	4.7	3.9	3.6	3.4	4.1	3.0
Other	7.3	8.8	9.8	9.8	10.5	11.1	10.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Sources: Romanian authorities; and Fund staff estimates.

Table 37. Romania: Foreign Exchange Market Transactions, 1996-2000

(In millions of U.S. dollars)

		Total Volume	Daily Average Volume	Total Volume between Banks
1996	January	349.3	16.6	22.5
	February	302.9	14.4	32.2
	March	314.0	15.0	36.4
	April	341.7	16.3	17.6
	May	360.8	16.4	32.0
	June	354.6	17.7	35.6
	July	404.8	17.6	74.3
	August	371.0	16.9	29.1
	September	386.9	18.4	92.8
	October	320.0	13.9	26.2
	November	293.8	14.0	13.1
	December	466.4	25.9	104.6
1997	January	272.4	13.6	12.2
	February	342.9	17.1	69.4
	March	488.0	23.2	158.1
	April	1,042.9	49.7	472.3
	May	858.8	40.9	339.1
	June	690.7	32.9	257.8
	July	881.2	38.3	321.6
	August	759.5	36.2	327.7
	September	698.6	31.8	236.7
	October	889.1	38.7	354.3
	November	789.8	39.5	307.5
	December	962.1	48.1	388.6
1998	January	947.8	47.4	435.2
	February	849.9	42.5	389.6
	March	1,172.4	53.3	572.3
	April	1,117.1	53.2	556.2
	May	980.8	49.0	442.1
	June	933.3	42.4	422.6
	July	1,177.3	51.2	605.3
	August	1,228.1	58.5	679.0
	September	1,513.6	68.8	890.0
	October	1,768.4	80.4	1155.8
	November	1,719.6	81.9	1085.1
	December	2,220.2	105.7	1462.6
1999	January	1,644.0	82.2	1140.2
	February	2,302.7	115.1	1816.7
	March	1,838.9	80.0	1219.4
	April	1,287.3	61.3	737.1
	May	1,854.9	88.3	1365.4
	June	1,455.7	66.2	939.5
	July	1,692.6	76.9	1082.4
	August	1,557.8	70.8	965.1
	September	1,824.9	82.9	1154.2
	October	1,953.0	93.0	1342.9
	November	2,501.9	113.7	1817.6
	December	1,853.1	88.2	1093.6
2000	January	1,753.0	87.7	1155.2
	February	1,668.6	79.5	1047.7
	March	2,091.1	90.9	1391.2
	April	1,900.9	95.0	1275.2
	May	1,901.6	86.4	1217.0
	June	1,637.7	74.4	939.1

Source: National Bank of Romania.

Table 38. Romania: Exchange Rate Against the U.S. Dollar and Transferable Ruble (TR), 1990-2000

	(Lei per U.S. dollar)		(Lei per TR 1/)	
	End of Period	Period Average	End of Period	Period Average
1990	34.7	22.43	22	20
1991	189.0	76.39	...	...
1992	460.0	307.95	...	...
1993	1,276.0	760.05	...	...
1994	1,767.0	1,655.09	...	...
1995	2,578.0	2,033.26	...	...
1996	4,035.0	3,082.60	...	...
1997	8,023.0	7,167.94	...	...
1998	10,951.0	8,876.60	...	...
1999	18,255.0	15,333.81	...	...
1997 I	6,996.0	6,365.00	...	...
1997 II	7,032.0	7,103.84	...	...
1997 III	7,613.0	7,379.44	...	...
1997 IV	8,023.0	7,823.50	...	...
1998 I	8,490.0	8,243.80	...	...
1998 II	8,670.0	8,475.40	...	...
1998 III	9,162.0	8,840.62	...	...
1998 IV	10,951.0	9,939.39	...	...
1999 I	14,925.0	12,559.37	...	...
1999 II	15,840.0	15,262.31	...	...
1999 III	16,488.0	16,127.12	...	...
1999 IV	18,255.0	17,382.91	...	...
2000 I	19,480.0	18,753.78	...	...
2000 II	21,358.0	20,394.11	...	...
1997 December	8,023.0	7,960.25	...	...
1998 January	8,248.0	8,293.40	...	...
1998 February	8,105.0	8,230.90	...	...
1998 March	8,490.0	8,207.09	...	...
1998 April	8,345.0	8,379.62	...	...
1998 May	8,511.0	8,477.25	...	...
1998 June	8,670.0	8,569.36	...	...
1998 July	8,744.0	8,699.43	...	...
1998 August	8,924.0	8,781.24	...	...
1998 September	9,162.0	9,041.19	...	...
1998 October	9,592.0	9,380.68	...	...
1998 November	10,082.0	9,908.86	...	...
1998 December	10,951.0	10,528.64	...	...
1999 January	11,614.0	11,353.60	...	...
1999 February	12,774.0	12,271.00	...	...
1999 March	14,925.0	14,053.52	...	...
1999 April	14,992.0	14,792.62	...	...
1999 May	15,622.0	15,237.81	...	...
1999 June	15,840.0	15,756.50	...	...
1999 July	16,037.0	15,920.95	...	...
1999 August	16,220.0	16,100.95	...	...
1999 September	16,488.0	16,359.45	...	...
1999 October	16,870.0	16,705.57	...	...
1999 November	17,893.0	17,446.73	...	...
1999 December	18,255.0	17,996.43	...	...
2000 January	18,465.0	18,352.55	...	...
2000 February	18,892.0	18,701.71	...	...
2000 March	19,480.0	19,207.09	...	...
2000 April	20,076.0	19,758.50	...	...
2000 May	20,697.0	20,393.18	...	...
2000 June	21,358.0	21,030.64	...	...

Source: Data provided by the Romanian authorities.

1/ The NBR stopped quoting the lei/TR rate since the beginning of 1991.

Table 39. Romania: Stock of Direct Foreign Investment 1997-1999
(Cumulative from 1990)

Country (Financial Organization)	Foreign Capital 1/			Number of Foreign Investors		
	1997	1998	1999	1997	1998	1999
Total	2,780,018	3,648,490	4,500,283	53,203	63,255	65,817
European Union	1,540,987	2,140,476	2,696,678	20,372	23,936	27,016
Austria	110,804	174,128	236,747	1,406	1,727	1,990
Belgium	18,432	37,973	39,416	588	684	783
Denmark	5,815	6,642	7,182	135	163	193
France	214,862	273,620	305,363	1,592	1,865	2,012
Finland	720	1,813	8,777	30	35	42
Germany	338,131	376,267	536,386	6,926	7,905	8,601
Greece	67,436	85,476	131,314	1,407	1,603	1,739
Ireland	10,130	12,664	13,340	95	100	113
Italy	196,962	292,198	345,737	5,780	7,081	8,334
Luxembourg	123,304	138,063	168,290	109	127	161
Netherlands	275,286	480,324	582,517	806	967	1,158
Portugal	1,067	1,735	1,782	27	35	40
Spain	27,091	27,808	28,940	231	268	309
Sweden	31,397	48,703	50,938	506	524	579
United Kingdom	119,550	183,062	239,950	734	852	962
Other countries:	724,043	833,758	983,324	11,495	13,163	14,597
Korea, Rep. of	234,037	234,064	234,070	46	60	72
U.S.A.	254,532	242,375	339,117	2,280	2,483	2,715
Turkey	126,268	176,885	193,162	4,427	5,343	6,117
Switzerland	89,782	72,950	101,671	671	751	821
Canada	48,026	51,609	56,087	521	584	635
Syria	53,079	55,875	59,218	3,550	3,942	4,237
E.B.R.D.	324,665	403,691	820,281	16,446	20,722	24,204
Israel	24,094	24,986	25,447	1,369	1,512	1,651
Hungary	51,155	84,451	152,103	2,175	2,712	3,075
Cyprus	69,199	85,398	383,139	385	534	745
Lebanon	24,733	31,019	35,774	2,038	2,274	2,477
China	37,350	40,782	42,663	3,176	4,697	5,550
Iraq	24,726	28,451	30,731	2,880	3,807	4,781
Liechtenstein	17,475	17,596	36,116	110	123	135
Iran	14,858	15,444	15,866	1,688	1,902	2,075
Britain Islands	4,139	13,132	22,893	53	83	114
Bulgaria	7,878	8,052	8,844	199	236	293
Egypt	8,001	9,269	9,375	765	967	1,111
Rep. of Moldova	6,874	10,344	20,352	594	760	964
Australia	10,996	10,900	11,133	282	297	325
Saudi Arabia	592	597	732	55	69	76
Panama	15,228	16,284	16,291	92	97	101
Yugoslavia	4,652	4,792	4,840	486	534	599
Poland	2,715	2,194	3,980	99	118	132

Source: Data provided by the Regional Development National Agency.

1/ In thousands US dollars

Table 40. Romania: National Bank of Romania's Borrowing from Capital Markets, 1995-99

Lead Manager or creditor	Amount 1/	Maturity (in years)	Spread 2/	Currency	Date	Date of Withdrawal
Citibank Syndicated Loan	110	1.50	225	U.S. dollar	December 7, 1995	December 13, 1996
Union Bank of Switzerland	60	2.00	50	U.S. dollar	December 29, 1995	December 29, 1997
Union Bank of Switzerland	20	2.00	50	U.S. dollar	January 12, 1996	August 29, 1996
Merrill Lynch	25	3.00	200	U.S. dollar	February 15, 1996	February 15, 1996
Merrill Lynch	25	5.00	225	U.S. dollar	February 15, 1996	February 15, 1996
Sanwa Bank	90	1.25	175	U.S. dollar	April 26, 1996	May 8, 1996
Nomura Securities	480	3.00	280 3/	Yen	May 28, 1996	May 28, 1996
Merrill Lynch	225	3.00	225	U.S. dollar	June 12, 1996	June 25, 1996
Nomura Securities	269	5.00	307 4/	Yen	September 20, 1996	October 9, 1996
ABN AMRO-Citibank	175	3.00	188	U.S. dollar	September 26, 1996	October 23, 1996

Sources: Romanian authorities; and Fund staff estimates.

1/ In millions of U.S. dollars. Liabilities in yen valued at exchange rate prevailing at the closing date.

2/ Over LIBOR in case of floating rate debt, and over equivalent government bond yield for fixed rate debt (Samurai and Eurobond).

3/ Fixed interest rate (5.20).

4/ Fixed interest rate (5.05).

Table 41. Romania: Outstanding External Debt in Convertible Currencies, 1993-99
(In millions of U.S. dollars, end of period)

	1993	1994	1995	1996	1997	1998	1999
Medium- and long-term	3,357	4,597	5,482	7,209	8,584	9,323	8,529
Official creditors	3,123	4,260	4,971	6,230	7,053	7,517	6,869
Multilateral Institutions	2,037	2,715	2,787	2,720	3,392	3,689	3,882
<i>Of which</i> : IMF	1,041	1,313	1,039	651	642	539	459
Government and government guaranteed credits 1/	1,086	1,544	2,184	3,509	3,661	3,828	2,986
<i>Of which</i> : China	137	89	57	36	15	16	14
Commercial creditors 2/	212	337	512	980	1,532	1,806	1,660
Trade-related credits	212	290	415	485	577	289	203
Commercial banks	0.0	0	0	0	80	74	37
Non-guaranteed suppliers' credits	0.0	47	97	495	875	1,443	1,421
Ex-CMEA banks 3/	22	0.0	0.0	0	0	0	0
Short-term	892	966	1,000	1,136	918	577	385
<i>Of which</i> :							
Documents in transit	85	62	172	475	471	232	160
Letters of credit	431	504	546	410	258	151	128
Total	4,249	5,563	6,482	8,345	9,503	9,899	8,915

Source: Romanian authorities.

1/ Includes guaranteed supplier credits, guaranteed credits from private banks, bonds issued in 1996 and 1997 and syndicated loan dating to 1928.

The figures do not include the disputed obligations to Sweden dated 1928

Table 42. Romania: Currency Composition of Medium- and Long-Term
External Debt, 1993-99

(In percent; end of period)

	1993	1994	1995	1996	1997	1998	1999
U.S. dollars	31.5	39.5	42.4	47.5	51.4	52.7	58.7
Swiss francs	4.0	2.4	1.6	0.9	1.7	1.7	1.6
Deutsche marks	4.8	5.1	11.1	11.9	15.6	16.1	15.1
SDRs	31.0	29.0	19.3	9.0	6.0	5.8	5.4
Pounds sterling	0.0	0.0	0.0	0.1	0.1	0.1	0.1
French francs	3.5	4.3	4.5	3.9	3.8	4.1	3.7
ECU	16.1	14.0	14.7	11.3	9.1	7.7	7.5
Other currencies	9.1	5.7	6.4	15.4	12.3	11.8	7.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Data provided by the Romanian authorities.

Table 43. Romania: Summary of Export Restrictions, 1994-97 1/
(Products subject to export quotas)

1994	1995	1996	1997
<p>II. Grains and Technical Crops</p> <p>Double and crossed maize hybrids (1 pos.) (1,000 tons)</p> <p>Triple crossed hybrids (1 pos.) (2,120 tons)</p> <p>Simple hybrids (1 pos.) (5,995 tons)</p> <p>Sunflower seeds for sowing (1 pos.) (230 tons)</p> <p>Raw sunflower oil (1 pos.) (15,000 tons)</p> <p>VI. Non-Ferrous Minerals, Fuels</p> <p>Copper-based alloys (3 pos.) (12,500 tons)</p> <p>Lead-based alloys (1 pos.) (1,000 tons)</p> <p>VIII Wood and Wood Products</p> <p>Different kinds of timber (9 pos.)</p> <p>Not-processed or semi-processed wood products (7 pos.)</p>	<p>II. Grains and Technical Crops</p> <p>Wheat for seeds and common wheat (2 pos.) (500,500 tons initially, but changed)</p> <p>Maize and maize hybrids (6 pos.) (total 1,008,830 tons)</p> <p>Sunflower for seeds (1 pos.) (382 tons)</p> <p>Raw sunflower oil (1 pos.) (10,000 tons)</p> <p>IV. Other Agriculture</p> <p>Raw sheep skins and hides (4 pos.) (315,000 pcs.)</p> <p>Cattle hides (2 pos.) (200,000 sq. m.)</p> <p>Sheep skins without hair (7 pos.) (185,000 pcs.)</p> <p>VI. Non-Ferrous Minerals, Fuels</p> <p>Copper and copper-based alloys (3 pos.) (10,100 tons)</p> <p>Aluminium-based alloys (1 pos.) (10,000 tons)</p> <p>Refined lead (1 pos.) (4,000 tons)</p> <p>Zinc (1 pos.) (5,000 tons)</p> <p>VIII Wood and Wood Products</p> <p>Coniferous timber (7 pos.)</p> <p>Beech tree timber and other timber (7 pos.)</p> <p>Semi-processed and different wood products (excl. furniture) (10 pos.)</p>	<p>II. Grains and Technical Crops</p> <p>Wheat for seeds and common wheat (2 pos.) (1,510,000 tons)</p> <p>Maize and maize hybrids (6 pos.) (1,024,000 tons)</p> <p>Sunflower seeds (1 pos.) (2,000 tons)</p> <p>Raw sunflower oil (1 pos.) (75,000 tons)</p> <p>IV Other Agriculture</p> <p>Raw sheep skins and hides ((4 pos.) (320,000 pcs.)</p> <p>Raw cattle hides (2 pos.) (300,000 sq. m.)</p> <p>Sheep skins without hair (7 pos.) (250,000 pcs.)</p> <p>Raw wool (2 pos.) (4,000 tons in sem. II only)</p> <p>VI Non-Ferrous Minerals, Fuels</p> <p>Products made of copper alloys (1 pos.) (100 tons)</p> <p>Aluminium-based alloys (1 pos.) (10,000 tons)</p> <p>Refined lead (1 pos.) (4,000 tons)</p> <p>Zinc (1 pos.) (8,000 tons)</p> <p>VI Wood and Wood Products</p> <p>Coniferous timber (8 pos.)</p> <p>Beech tree timber and other timber (6 pos.)</p> <p>Semi-processed and different wood products (excl. furniture) (9 pos.)</p>	<p>II. Grains and Technical Crops</p> <p>Wheat and maize hybride (6 pos)</p> <p>Barley (1 pos)</p> <p>Flour (2 pos)</p> <p>Sunflower seeds for crops (1 pos)</p> <p>Raw sunflower oil (1 pos)</p> <p>Bread (1 pos)</p> <p>Wheat's extraction (1 pos)</p> <p>Soya beans' extraction (1 pos)</p> <p>Sunflower's extraction (1 pos)</p> <p>IV. Other Agriculture</p> <p>Snails, other than sea snails (1 pos)</p> <p>Raw cattle and horse skins and hides (7 pos) - (2,500 tons)</p> <p>Raw sheep skins and hides 4 (pos - (1,530 tons)</p> <p>Other raw skins and hides (1 pos) (700 tons)</p> <p>Other cattle skins (2 pos), (2,735 tons)</p> <p>Sheep skins without hair (2 pos) (564 tons)</p> <p>Raw wool (2 pos); (4,000 tons)</p> <p>V. Ferrous metals</p> <p>Iron and steel trash (3 pos) (250,000 ton)</p> <p>VI. Non-ferrous minerals, metals, fuels</p> <p>Copper trash (1 pos) - 3,000 tons)</p> <p>Copper and copper based alloys, copper products (3 pos); (4,200 tons)</p> <p>Aluminium based alloys (2 pos) (10,000 tons)</p> <p>Lead, lead alloys (2 pos); (6000 tons)</p> <p>Zinc (1 pos); (10,000 tons)</p> <p>VII Wood and wood products</p> <p>Coniferous timber (9 pos); (972,000 m3)</p> <p>Beech tree timber and other timber (9 pos); (310,000 m3)</p> <p>Wood products:</p> <p>1 pos = 1,000 m2</p> <p>1 pos = 10,000 m3</p> <p>1 pos = 2,000 m3</p>

Source: Ministry of Industry and Trade

Table 44. Romania: Energy Prices, 1993-99 1/

(In domestic currency)

		Jan. 1993	Feb.-Aug. 1993	Jan. 1994	Feb.-Aug. 1994	Jan. 1995	Feb.-Apr. 1995	May-Sep. 1995	Oct. 1995- June 1996	July-Nov. 1996	Dec. 1996	Jan.-Dec. 1997	Jan.-Apr. 1998	1998	1999
Liquid bottled gas 2/ (Households)	lei/bottle	150	836 3/	2,500	3,572	4,100	4,758	6,565	6,639	10,647	11,112	27,667	33,977	34,793	69,222
Premium gasoline	lei/litre														
Households		140	184	400	436	452	494	600	742	989	991	2,764	3,599	4,175	8,153
Enterprises		93	118	264	284	287	316	380	474	612	612	1,423	1,305	1,207	1,846
Diesel fuel	lei/litre														
Households		110	156	290	334	355	377	432	497	679	680	2,256	2,902	3,191	5,316
Enterprises		75	101	197	225	237	249	270	316	431	429	1,282	1,356	1,225	1,683
Light fuel type P	lei/ton														
Households		16,890	96,847 3/	229,192	274,372	295,540	314,706	361,882	361,882	566,948	566,948	1,747,478	2,045,948	2,150,510	3,453,940
Enterprises		102,700	139,573	275,300	318,107	273,140	289,451	338,382	338,382	494,755	534,748	1,461,454	1,851,786	1,771,899	2,505,663
Heating oil (light)	lei/ton														
Households		10,170	61,330 3/	146,000	206,490	229,770	249,193	293,890	295,830	485,250	486,920	1,205,310	1,521,790	1,600,540	2,880,610
Enterprises		31,700	46,375	74,800	107,383	127,160	139,593	172,065	172,000	269,457	270,000	651,719	859,753	812,502	1,190,571
Crude oil	lei/ton	34,625	47,825	84,565	104,754	113,448	124,521	149,713	179,097	315,638	315,948	863,238	966,110	918,992	1,586,058
Natural gas	lei/1,000 m3														
Economic units & population		11,437	14,883 3/	38,799	45,366	50,886	50,886	50,886	50,886	81,232	81,639	394,875	471,250	515,475	801,835
Economic units		...	...	...	...	...	...	...	...	...	...	608,333	712,500	714,700	854,713
Used as fuel		3,700	15,300	24,000	30,860	34,000	34,000	38,640	40,000	62,850	63,000	188,330	230,000	316,250	749,310
Coal (lignite)	lei/ton														
Households		1,980	8,963 3/	24,588	27,988	38,990	39,262	41,486	44,167	58,496	61,781	142,933	267,088	291,251	391,910
Enterprises		5,078	7,143	12,970	17,762	19,740	19,726	22,053	26,250	35,893	35,992	88,773	106,751	107,098	170,653
Electricity 4/	lei/kwh														
Households		6	19 3/	28	36	40	40	45	46	73	73	161	187	321	
Economic units & population		...	...	52	67	78	78	84	88	137	140	365	436	430	553
Economic units		17	22	48	62	71	72	78	81	127	127	325	385	400	568

Source: National Statistics Commission.

1/ Delivery prices, including VAT from July 1, 1993.

2/ 12.5 kg. bottles, delivered for households.

3/ Exempted from VAT.

4/ Explicit subsidies for households were eliminated from May 1, 1993.

Table 45. Romania: Energy Bill, 1996-99

	Natural Gas (millions of cu. metres)		Electric Power (thousand kw hours)		Mineral Fuel (tonnes)		Crude Petroleum (tonnes)		Petroleum Products (tonnes)		TOTAL US\$ thousands
	Quantity	Value 1/	Quantity	Value 1/	Quantity	Value 1/	Quantity	Value 1/	Quantity	Value 1/	
1996 Exports f.o.b.	0	0	0	0	490	32664	0	0	2944	563361	596025
Q1	0	0	0	0	126	8436	0	0	923	155067	163503
Q2	0	0	0	0	116	8393	0	0	818	160950	169343
Q3	0	0	0	0	126	8432	0	0	509	89377	107809
Q4	0	0	0	0	122	7403	0	0	694	147967	155370
1996 Imports c.i.f.	7148	611900	749	16707	4843	324074	7156	1036932	3219	400583	2390196
Q1	1850	153063	341	7881	1025	68952	2429	323509	961	116713	670138
Q2	1638	135824	324	6814	967	65455	1499	209184	862	102586	519863
Q3	1645	141381	84	2012	1191	79765	1196	173894	627	75093	472145
Q4	2015	181612	0	0	1660	109902	2032	330345	769	106191	726050
1997 Exports f.o.b.	0	0	556	13058	418	24699	0	0	2659	480025	517782
Q1	0	0	84	2026	112	6922	0	0	768	145517	154465
Q2	0	0	98	2239	106	6873	0	0	897	158375	167287
Q3	0	0	57	1268	126	7019	0	0	691	120895	128982
Q4	0	0	317	7525	74	4085	0	0	303	55438	67048
1997 Imports c.i.f.	4895	448075	777	17489	5462	370189	8245	838301	3915	456764	2130818
Q1	1498	141981	151	3376	913	60845	2042	305242	685	84639	596083
Q2	859	80284	155	3531	1665	115765	1852	226045	902	96578	522203
Q3	820	75376	399	8924	1161	78948	953	121332	1702	189145	473725
Q4	1718	150434	72	1658	1723	114631	1398	185682	626	86402	536807
1998 Imports f.o.b.	0	0	337	11055	378	19274	0	0	3001	362882	393211
Q1	0	0	126	4096	90	5596	0	0	566	81500	91192
Q2	0	0	50	1607	115	5870	0	0	751	90822	98289
Q3	0	0	26	790	69	3175	0	0	679	77094	81059
Q4	0	0	135	4562	104	4633	0	0	1005	113466	122661
1998 Imports c.i.f.	4736	350406	724	26709	4014	245870	5974	550767	2716	256780	1430532
Q1	1328	112340	86	2509	1032	69767	1448	140482	605	58725	393823
Q2	1136	89949	267	10675	1240	74378	1222	114623	874	81100	370925
Q3	1059	70746	324	12072	966	56821	1256	110035	604	58969	308643
Q4	1213	77371	27	1253	776	44904	2048	185627	633	57988	367141
1999 Imports f.o.b.	0	0	2237	72578	291	21193	0	0	1957	320489	414260
Q1	0	0	832	26896	111	5985	0	0	504	50225	83106
Q2	0	0	449	14590	37	2572	0	0	394	56893	74055
Q3	0	0	526	17091	69	4958	0	0	517	98848	120897
Q4	0	0	430	14001	74	7678	0	0	542	114523	136202
1999 Imports c.i.f.	3208	198588	1412	46075	2730	161522	4294	478192	1513	166842	1051219
Q1	888	52848	288	9502	613	34973	1201	89907	332	30418	217648
Q2	540	30563	621	20214	631	40374	535	50948	228	25205	167304
Q3	461	26799	309	10053	804	48048	1090	118214	454	42830	243944
Q4	1319	88378	194	6306	682	40127	1468	219123	499	68389	422323

Source: National Bank of Romania

1/ Thousands of U.S. dollars.

Table 46. Romania: Energy Balance, 1996-98

	Units	1996 Actual		1997 Actual		1998 Actual	
		Natural units	Thousand toe 1/	Natural units	Thousand toe 1/	Natural units	Thousand toe 1/
Energy Sources - Total			53,941	51,261		46,204	
Production			35,135	31,401		28,796	
Coal 2/	thousand tons		8,065	6,600		5,149	
Hydrocarbons			20,464	18,512		17,610	
Natural gas	million m ³		13,764	11,908		11,195	
Crude oil	thousand tons		6,700	6,604		6,415	
Hydroelectric power	Gwh		1,579	2,916		3,009	
Nuclear power	Gwh		139				
Other			4,888	3,373		3,028	
Import			18,806	19,163		15,148	
Coal	thousand tons		2,773	3,429		2,495	
Hydrocarbons			15,788	14,291		12,485	
Natural gas	million m. ³		5,654	4,030		3,773	
Crude oil	thousand tons		7,153	6,243		6,000	
Oil products	thousand tons		2,981	4,018		2,712	
Heavy fuel oil	thousand tons						
Electric power	Gwh		193	89		101	
Stocks at the beginning of the period	thousand tons						
Destination - Total							
Consumption			50,365	45,505		40,983	
Population			10,618	9,673		9,412	
Export							
Stocks by the end of the period							

Source: National Commission for Statistics

1/ Tons of oil equivalent (10,000 Kcal/kg).

2/ Without coking coal.

*) Data are not yet available

Table 47. Romania: Primary Supply and Consumption of Petroleum Resources, 1980-99

	1980	1985	1989	1990	1995	1996	1997	1998	1999
Oil									
Domestic production									
Crude oil	11.5	10.7	9.2	7.9	6.4	6.4	6.4	6.3	6.1
Natural gas - liquids	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2	0.2
Subtotal	11.9	11.1	9.6	8.3	6.8	6.8	6.8	6.5	6.3
Imports - crude oil	16.2	14.6	21.8	16.1	8.8	8.8	8.8	6.0	4.3
Exports - petroleum products	8.9	9.1	12.0	8.4	2.3	2.3	2.3	3.4	...
Net domestic consumption	19.2	16.6	19.6	16.0	13.3	13.3	13.3	12.8	...
<i>Of which</i> : Domestically produced (in percent)	62.0	66.9	49.0	51.9	51.1	51.1	51.1	79.7	...
Net import (in percent)	38.0	33.1	50.0	48.1	48.9	48.9	48.9	20.3	...
Natural gas									
Domestic production									
Non-associated gas	25.5	31.9	25.3	17.5	12.8	12.8	12.8	9.1	8.8
Associated gas	7.0	7.0	7.0	5.3	5.3	5.3	5.3	5.3	5.7
Subtotal (bcm) 1/	32.5	38.9	32.8	22.8	18.1	18.1	18.1	14.4	14.5
Imports	1.6	1.8	7.0	5.8	7.3	7.3	7.3	4.7	3.2
Exports	0.2	0.0	0.0	0.0	0.0	0.0	0.0	...	...
Net domestic consumption (bcm)	36.6	40.9	39.8	28.6	25.4	25.4	25.4	18.6	...
Net domestic consumption (million toe)	30.5	34.1	33.2	23.8	21.2	21.2	21.2	14.8	...
<i>Of which</i> : Domestically produced (in percent)	88.8	95.1	82.4	79.7	71.3	71.3	71.3	77.7	...
Net import (in percent)	3.8	4.4	17.6	20.3	28.7	28.7	28.7	22.3	...
Total net domestic consumption (in millions of toe)	49.7	50.5	52.7	39.8	34.5	34.5	34.5	24.3	...

Sources: World Bank; and Ministry of Industry.

1/ 1 bcm of natural gas is equivalent to 1.2 million tons of oil equivalent (toe).

Table 48. Romania: Production, Domestic Consumption, Export
and Import of Oil and Oil Products, 1980-99

(In thousands of tons)

	Crude Oil		Total Refined Product			Domestic Consumption
	Domestic Production 1/	Import	Total Supply	Total Production	Export	
1980	11,865	15,961	27,826	26,929	8,754	18,175
1981	12,012	12,915	24,927	24,777	8,124	16,653
1982	12,112	10,924	23,036	22,986	6,543	16,443
1983	11,974	12,395	24,369	24,037	9,116	14,921
1984	11,835	13,534	25,369	24,859	10,193	14,666
1985	11,092	14,626	25,718	24,987	9,689	15,298
1986	10,520	17,047	27,567	27,081	10,374	16,707
1987	9,846	21,366	31,212	30,250	11,829	18,421
1988	9,713	20,957	30,670	30,253	13,248	17,005
1989	9,573	21,809	31,382	29,821	13,375	16,446
1990	8,135	16,058	24,193	22,790	5,120	17,670
1991	6,941	8,634	15,575	15,293	2,496	12,797
1992	6,770	6,572	13,342	13,073	2,560	10,513
1993	6,830	7,581	13,771	13,111	2,676	10,453
1994	6,860	8,122	14,982	14,390	4,069	10,321
1995	6,951	8,657	15,608	13,796	4,690	9,106
1996	6,852	7,156	14,008	13,602	3,730	9,872
1997	6,750	6,245	12,995	13,166	2,882	10,284
1998	6,553	5,974	12,527	13,233	3,169	10,064
1999 2/	6,154	4,294	10,448	10,303	1,957	8,346

Source: Data provided by the Romanian authorities.

1/ Includes a small amount of by-products from natural gas wells.

2/ Preliminary data.

Table 49. Romania: Electric Power Balance, 1995-99

(In gigawatt hours)

	1995 Actual	1996 Actual	1997 Actual	1998 Actual	1999 Estimates
Total resources	60,022	63,592	58,187	54,677	51,230
Domestic production	59,267	61,350	57,148	53,496	50,049
Thermal power plants	42,573	44,209	34,239	29,310	26,562
Coal	20,594	20,471	16,862	14,485	...
Hydrocarbons and secondary energy resources	21,979	23,738	17,377	14,825	...
Hydropower plants	16,694	15,755	17,509	18,879	18,289
Nuclear plants	0	1,386	5,400	5,307	5,307
Import	755	2,242	1,038	1,181	1,181
Total destinations	60,022	63,592	58,187	54,677	51,230
Gross domestic consumption - total	49,475	54,974	50,504	46,235	43,329
Population 1/	7,401	8,447	8,296	8,296	8,296
Export					

Source: National Commission for Statistics.

1/ Without public illumination.