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ROMANIA

Selected Issues and Statistical Appendix

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Approved by the European I Department

December 19, 2002

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I. An Assessment of the Real Exchange Rate in Romania[1]

A. Introduction

1. The current monetary policy in Romania is focused on promoting gradual disinflation without putting external competitiveness at risk. In conducting monetary policy, the National Bank of Romania (NBR) primarily employs the exchange rate as a nominal anchor. In choosing the exchange rate path, the NBR seeks to strike a balance between taming inflation and avoiding unwarranted real appreciation, which might arise if other policies are not supportive. If the real exchange rate overshoots its long-run level, external competitiveness is negatively affected and the exchange rate becomes unsustainable. Therefore, assessing the real exchange rate, and in particular, trying to determine if the actual rate is over- or undervalued relative to its long-run level, is a crucial issue for conducting monetary policy in Romania.

2. This chapter provides an estimate of the long-run path of Romania's real exchange rate. After briefly reviewing the literature, the chapter describes the recent history of the real exchange rate and its main determinants. A model is then developed of a time-varying long-run exchange rate path, mainly driven by the terms of trade and net foreign direct investment. This long-run path is then used to assess the developments in Romania's actual exchange rate.

B. Background

3. Following the classic example of Balassa-Samuelson,[2] several theories suggest that the long-run real exchange rate is time-varying and thus provide a rationale for deviations from purchasing power parity (PPP), according to which the long-run value of the real exchange rate is constant. A common procedure to estimate the long-run real exchange rate path applies the cointegration framework, which is used to test whether a long-run relationship between the real exchange rate and various economic fundamentals exists. If such a relationship can be established, it defines the long-run real exchange rate as a function of the identified explanatory variables.[3]

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[1] Prepared by Thomas Harjes.

[2] Balassa (1964) and Samuelson (1964) argued that if a country's productivity in the tradables sector increases relative to its trading partners' (and relative to its own nontradables sector), its real exchange rate would appreciate.

[3] Many studies refer to such an empirical long-run relationship as defining the equilibrium real exchange rate. In that setting, one option is to define the equilibrium exchange rate as the exchange rate consistent with both internal and external equilibrium (Edwards (1989)). However, as Isard and others (2001) point out, the derived estimates of equilibrium exchange

(continued...)

4. During the past decade, several studies have analyzed real exchange rates in transition countries. For a broad sample of transition countries, including Romania, Halpern and Wyplosz (1997) note that the real exchange rate exhibits strikingly similar features across these countries during the early 1990's, irrespective of the exchange rate regime. Following an initial sharp depreciation at the beginning of economic transition, the real exchange rate trends upwards surpassing its initial value in most cases. Halpern and Wyplosz (1997), as well as Krajnyak and Zettelmeyer (1998), use U.S. dollar wages as a measure for the real exchange rate. Both studies estimate equilibrium dollar wages that suggest a pronounced undervaluation of domestic currencies in the beginning of the transition period, with the gap between the actual and the equilibrium exchange rate subsequently gradually declining in most of these countries, but not fully closing by 1995–96.[4] In addition, the estimated path for equilibrium dollar wages trends upward in these studies. The observed increase in actual dollar wages therefore reflects both a recovery from initial undervaluation and an upward equilibrium trend. However, De Broeck and Slok (2001) argue that underlying productivity gains in the tradable sector have been the major source of real exchange rate movements in several central and eastern European and Baltic countries. In contrast, Barlow and Radulescu (2002) conclude that mean reversion following the sharp depreciation of the Romanian real exchange rate explains most of the subsequent appreciation.

5. This paper argues that the persistent real exchange rate appreciation in Romania since the mid-1990s has been caused by changes in underlying real factors, whereas part of the real exchange rate appreciation in the early 1990s could reflect initial overshooting at the beginning of the transition process.

C. Romania's Real Exchange Rate and its Main Determinants, 1991–2001

6. Figure 1 shows the evolution of the annual CPI-based real effective exchange rate in Romania during 1991–2001.[5] After a sharp depreciation in 1991/1992, the real exchange rate recovered in 1992/1993 correcting for a likely initial overshooting. Subsequently, the real exchange rate appreciated by about 40 percent until 2001.

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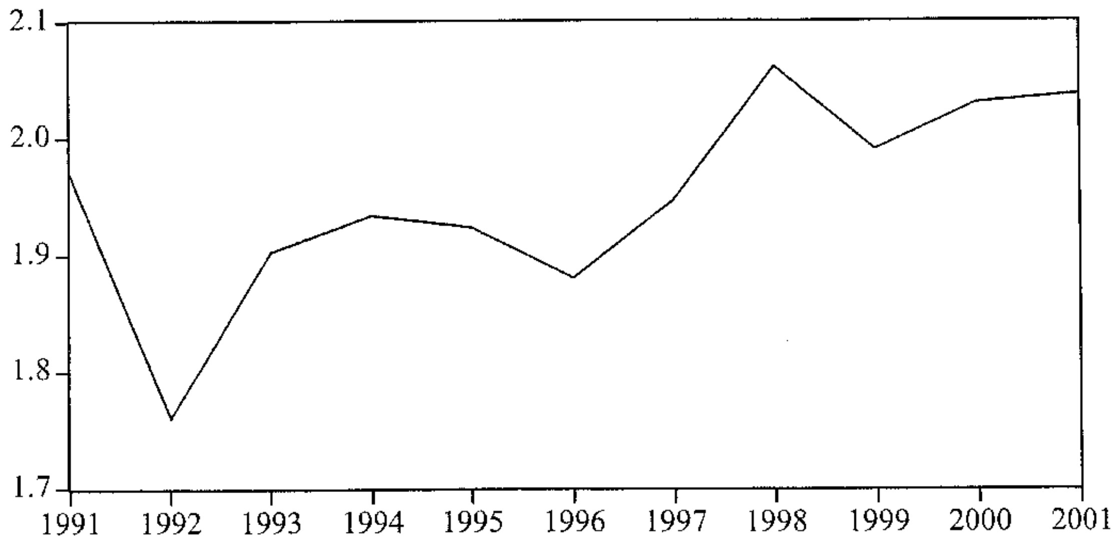
rates are then conditional on assumptions about the equilibrium values of the explanatory variables which are difficult to establish for Romania over the past decade.

[4] In the case or Romania, the degree of potential "undervaluation" of the real exchange rate is large when measured as U.S. dollar wages. Halpern and Wyplosz (1997) estimate that in 1996, Romania's actual dollar wages were at about 25–35 percent of their equilibrium level.

[5] See Desruelle and Zanello (1997) for a description.

Figure 1. Romania: The Real Effective Exchange Rate, 1991-2001.



Source: IMF International Financial Statistics; Logarithms of CPI-based real exchange rate.

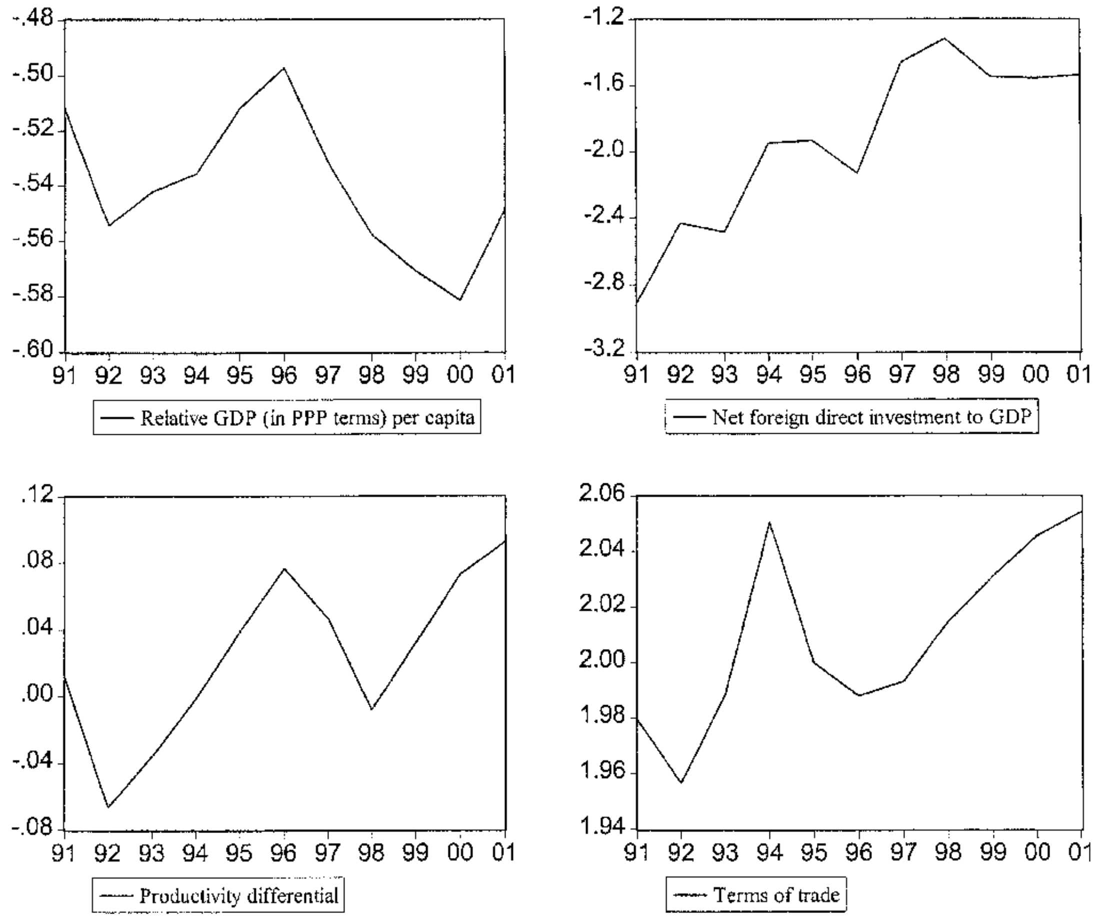
7. In the literature, the following variables have been identified that can influence the real exchange rate in the long-run:[6] (a) relative income levels; (b) the productivity differential between a country and its main trading partners; (c) net capital inflows; and (d) the terms of trade. Figure 2 shows the evolution of these variables in Romania over the past decade.

8. In case of imperfect capital markets (see De Gregorio and Wolf (1994)) or nonhomothetic preferences for tradables and nontradables (see Bergstrand (1991)), an increase in relative income can raise the relative demand for nontradables and result in real appreciation. An increase in relative income can also bid up the relative price of fixed, nontradable assets such as land.

9. The Balassa-Samuelson hypothesis states that if a country's productivity gains in the tradables sector outpace those in the nontradables sector relative to its trading partners, the relative price increase in nontradables would give rise to real appreciation. Although this effect would also be associated with a rise in the country's relative income, this paper investigates the Balassa-Samuelson effect separately by directly employing the productivity differential between Romania and its main trading partners in the tradables sector.

[6] Other variables include real public spending, the degree of openness and net foreign assets.

Figure 2. Romania: The Main Determinants of the Real Exchange Rate, 1991–2001.



Source: National Institute for Statistics, Romania and IMF International Financial Statistics. The scales are in logarithms. The difference between any two time points corresponds to the variable's growth rate.

10. Other studies, including Halpern and Wyplosz (1997), have suggested that net capital flows, in particular sustainable or long-run capital flows, tend to produce real appreciation.[7] Following Paiva (2001), sustainable or long-run capital flows are proxied by using net foreign direct investment flows.

[7] However, the accumulation of net foreign liabilities would require Romania to run a trade surplus in the future and may then require a real depreciation of the exchange rate.

11. Several studies, including De Gregorio and Wolf (1994), have found a strong positive effect of the terms of trade on the real exchange rate.[8] In transition countries the sluggish integration into Western markets could have gradually improved the terms of trade during the 1990's (see Halpern and Wyplosz (1997)). Traded goods produced by transition countries were initially of low quality and poorly marketed. An improvement in quality and marketing procedures for exports would tend to drive upward the terms of trade.

D. Empirical Methodology and Data Analysis

12. According to Lane and Milesi-Ferretti (2002), the estimation of a long-run exchange rate path includes the following steps: (a) testing for the presence of unit roots in the data series; (b) testing for the existence of a cointegrating relationship; and (c) estimating the cointegrating relationship. The data are annual over the period 1991–2001. The real effective exchange rate is CPI-based, with weights set according to Romania's trading pattern in 1995. Relative GDP per capita is measured as Romania's real GDP per capita in PPP terms relative to the trade weighted real GDP per capita of its main trading partners[9]. Total productivity in the tradables sector is proxied by using labor productivity because reliable capital stock data, as well as capital utilization rates, are not available for Romania. Labor productivity for the industrial sector over the past decade is provided by the National Institute for Statistics in Romania. The productivity differential is then calculated as the difference between the Romanian productivity level and the trade weighed average of its main advanced trading partners productivity levels. Sustainable net capital flows are proxied by the net foreign direct investment to GDP ratio. The terms of trade are defined as the ratio of export unit values to import unit values as provided by Romania's National Institute for Statistics. All variables are transformed into logarithms. Given the relatively short time period and a limited number of observations, the results of this econometric exercise should be treated cautiously.

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[8] There are various channels through which the terms of trade can affect the real exchange rate and in general, the overall effect is ambiguous. De Gregorio and Wolf (1994) show that in a small open economy model the terms of trade positively affect the real exchange rate if imperfect capital mobility is introduced.

[9] Romania's main advanced trading partners include: Austria, France, Germany, Greece, Italy, the Netherlands, the U.K. and the U.S.A. PPP conversion factors are provided by the World Bank.

Table 1: Unit Root Tests

	ADF	Phillips-Perron
REER	-1.50	-1.85
(a) Relative GDP per capita	-1.94	-1.88
(b) Productivity differential	-2.39	-1.21
(c) NFDI to GDP ratio	-1.48	-2.24
(d) Terms of trade	-2.06	-1.36

Note: ADF is Augmented Dickey-Fuller test with one lag. Phillips-Perron test employs a one lag truncation window.

13. Table 1 presents the unit root test results for the augmented Dickey-Fuller and Phillips-Perron tests. The null of nonstationarity in levels cannot be rejected for any of the variables at the 10 percent significance level. Although the individual series are nonstationary, a linear relationship may still exist among some of them such that the residual is stationary. These variables are then said to be cointegrated. Given the short time period, cointegration is only tested for all possible pairs of explanatory variables. Table 2 reports the results of such cointegration tests applying the Johansen procedure. The Johansen test rejects the null of no cointegration in favor of a single cointegration vector in several cases, including specifications that allow for a deterministic trend in the cointegrating equation.[10] For all these cases in which the presence of a cointegrating relationship has been established, a long-run equation is estimated using Phillips and Hansen's (1990) Fully Modified OLS estimates.[11]

[10] As noted in Coorey, Mecagni and Offerdahl (1996), transition countries inherited a set of natural resource prices below world market prices and kept administered prices including public utility prices considerably below cost recovery levels in the beginning of the transition period. When these prices are raised toward world market prices and cost recovery levels, the measured real exchange rate appreciates. This effect can be captured by allowing for a deterministic time trend in the cointegrating equation.

[11] If the regressors and the residuals are correlated, the t-statistics of standard OLS estimators are invalid. The Phillips-Hansen FMOLS estimation takes account of these possible correlations in a semi-parametric manner. In all cases in which the cointegrating equation includes a trend, a linear and alternatively a "root" trend has been included in the FMOLS estimation.

Table 2: Cointegration Tests

	Johansen (1)	Johansen (2)
REER and (a) and (b)	18.02	40.26
REER and (a) and (c)	51.83**	57.53**
REER and (a) and (d)	28.20	41.21
REER and (b) and (c)	34.74*	44.91*
REER and (b) and (d)	24.78	50.18**
REER and (c) and (d)	41.39**	45.48**

Note: Johansen (1) and (2) are the trace statistics for the null of no cointegrating relationship. Johansen (1) includes an intercept in the cointegrating equation and a deterministic trend in the variables. Johansen (2) includes an intercept in the cointegrating equation and a deterministic trend in the variables and the cointegrating equation. * denotes significance at the 5 percent level and ** denotes significance at the 1 percent level.

14. For all three specifications that included the productivity differential in the cointegrating relationship, FMOLS estimation did not produce a significant parameter estimate for the productivity differential. These results indicate that the Balassa-Samuelson effect fails to explain much of the real exchange rate movements in Romania over the past decade.[12] Assuming a declining positive time trend resulted in a significant estimate for relative GDP per capita. However, the parameter estimate was strongly negative and net foreign investment turned out to be insignificant in that case. Only in the case when net capital flows and the terms of trade were employed as explanatory variables and no time trend was included, the FMOLS procedure yielded significant parameter estimates for both explanatory variables. These results are reported in Table 3.[13] The terms of trade exert a strong positive effect on the real exchange rate. Net capital flows also tend to push upward the real exchange rate but the quantitative effect is small.[14]

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[12] Figures 1 and 2 show that both the real exchange rate and the productivity differential trend upward over the past decade. However, in some years and especially during the 1997–99 crisis the variables move in opposite directions and weaken the case for the productivity differential being a significant contemporaneous explanatory variable. The limited number of observations do not allow for a more elaborate model structure, including lagged variables or trying to control for the above event, that could yield a different outcome. Simply using one-period lags for the productivity differential did not change the outcome.

[13] Standard OLS estimation led to the same results regarding the significance of the various explanatory variables.

[14] Net capital flows were part of all significant cointegrating equations. However, they alone do not drive the results: regressing the real exchange rate on net capital flows only or net capital flows and a time trend yielded a poor fit and insignificant parameter estimates.

Table 3: Estimates of The Long-run Relationship

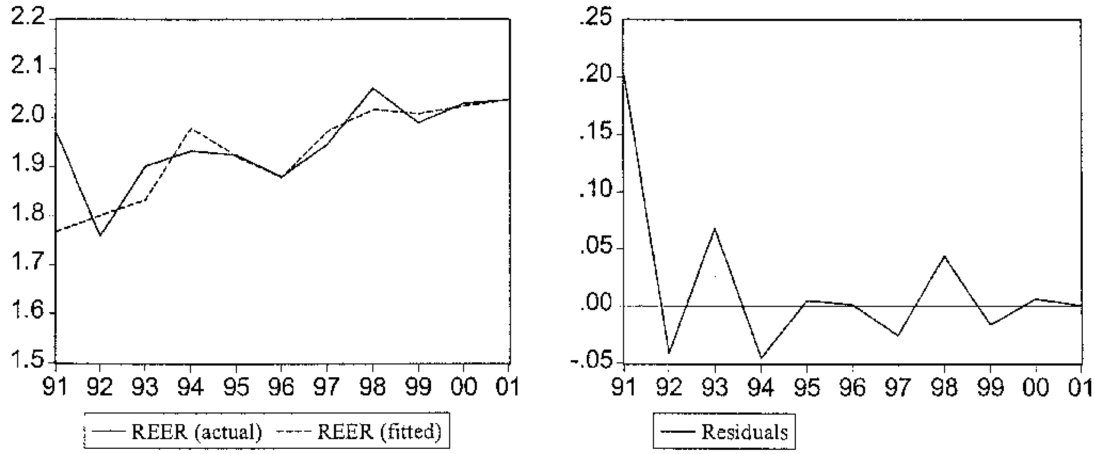
	NFDI	Terms of trade	Constant
Phillip-Hansen estimates	**0.13**	**1.22**	**-0.27**
Standard error	(0.02)	(0.22)	(0.45)
P-value	0.000	0.001	0.575

Note: A crucial requirement for the validity of the FMOLS estimates, namely that the terms of trade and net capital flows are not themselves cointegrated, was met. The null of no cointegration could not be rejected at the 1 percent and 5 percent significance levels.

15. Figure 3 shows the actual and fitted values according to the estimation results shown in Table 3, as well as the residuals. Fitted values for the real exchange rate represent the long-run real exchange rate under the hypothesis that the terms of trade and net foreign investment have been the main real variables affecting the real exchange rate path over the past decade. After deviating substantially from its long-run path in both directions in the early 1990s, the real exchange rate became strongly overvalued in 1998, the year in which Romania's financial crisis culminated. The sharp devaluation of the nominal exchange rate that the NBR engineered subsequently led to a somewhat undervalued real exchange rate in 1999. A depreciated real exchange rate in 1999 and the modest appreciation during 2000–01, consistent with the long-run exchange rate trajectory, most likely contributed to Romania's strong export performance during the past two years.

16. Regarding expectations about the future long-run path of the real exchange rate, the above findings have several important implications. The positive trend of the terms of trade is likely to fade out in the near future as Romanian export companies become established players in foreign markets and, therefore, would not be expected to keep pushing the long-run real exchange rate upward. Given the relatively weak impact of net capital flows on the long-run real exchange rate, the prospects for further sustainable appreciation coming from this source would also be weak. Against this background, any sizable real appreciation of the actual real exchange rate in the years to come could likely outpace its long-run path. The above results include that a significant statistical relationship between the long-run real exchange rate and the productivity differential or relative GDP could not be found for the past decade. However, these findings do not rule out the possibility that those factors gain a more prominent role in affecting the long-run real exchange rate in the future. In addition, the sizable undervaluation of the Romanian real exchange rate according to the absolute purchasing power parity hypothesis may also contribute to further real appreciation.

Figure 3: Romania: Actual and Fitted Values for the Real Exchange Rate and Residuals, 1991–2001



E. Conclusion

17. This chapter provided an assessment of the real exchange rate in Romania over the past decade. The investigation started with the assumption that real factors have been driving the sustained real appreciation over the past decade. An econometric analysis led to the conclusion that the time-varying path for the long-run real exchange rate had been mainly determined by the terms of trade and net capital flows, both pushing the long-run exchange rate path upward. The estimated long-run path indicated a significant overvaluation of the real exchange rate in 1998 which was reversed in 1999 and set the basis for the strong export performance in 2000 and 2001. With structural improvement in the terms of trade likely to diminish and the relatively weak impact of capital inflows, the scope for further real appreciation seems limited. However, in view of the relatively short time period on which the analysis was based on, it cannot be ruled out that other real effects such as the Balassa-Samuelson effect could assume a more important role in determining the real exchange rate in Romania and could possibly allow for further significant and sustainable real appreciation.

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II. ROMANIA'S GROWTH POTENTIAL IN THE MEDIUM TERM[1]

1. This chapter discusses real output growth in Romania over the past decade and provides a rough estimate of the future growth potential.

A. Historical Record

2. During the past decade, Romania's overall growth performance was disappointing; output was highly volatile and its growth was on average very low. (Figure 1). Having reached its trough in 1992, GDP growth steadily increased and averaged 5 percent during the period 1994–1996. Most of these gains were lost in the 1997–1999 crisis, when GDP dropped by about 12 percent. In 2000, Romania returned to modest positive growth and in 2001 saw a surge in its growth rate to 5.3 percent, supported by a strong recovery in the agricultural sector. However, overall growth during this period averaged only 1.2 percent annually.

3. The explanation of the low growth rate requires a closer look at total employment and capital developments (Figure 1). In the 1990s, the labor force and total employment persistently declined. Total employment shrank by about 2 million people or 17.3 percent[2]. Assuming a standard Cobb-Douglas production function and a labor share of 0.6, the contribution of the employment decline to annual GDP growth was -1.3 percentage points. Capital stock data is not available for Romania, but estimates suggest that it slightly increased by about 10 percent over the 1992–2001 period (see appendix for the procedure used to estimate the capital stock). Assuming a capital share of 0.4, this implies a modest 0.4 percentage point contribution to annual output growth. Growth accounting therefore suggests that total factor productivity (TFP) growth, measured as the Solow residual, provided the major contribution to GDP growth, estimated at 2.0 percent annually. We would hypothesize that the more efficient utilization of labor and capital was among the major determinants of TFP growth, with the privatization and restructuring improving the utilization and allocation of factor inputs, reducing hidden unemployment and raising labor productivity. Table 1 summarizes these findings and provides results for alternative assumptions on labor and capital shares, in line with the estimates in Chapter III of this paper on Labor Market Issues.

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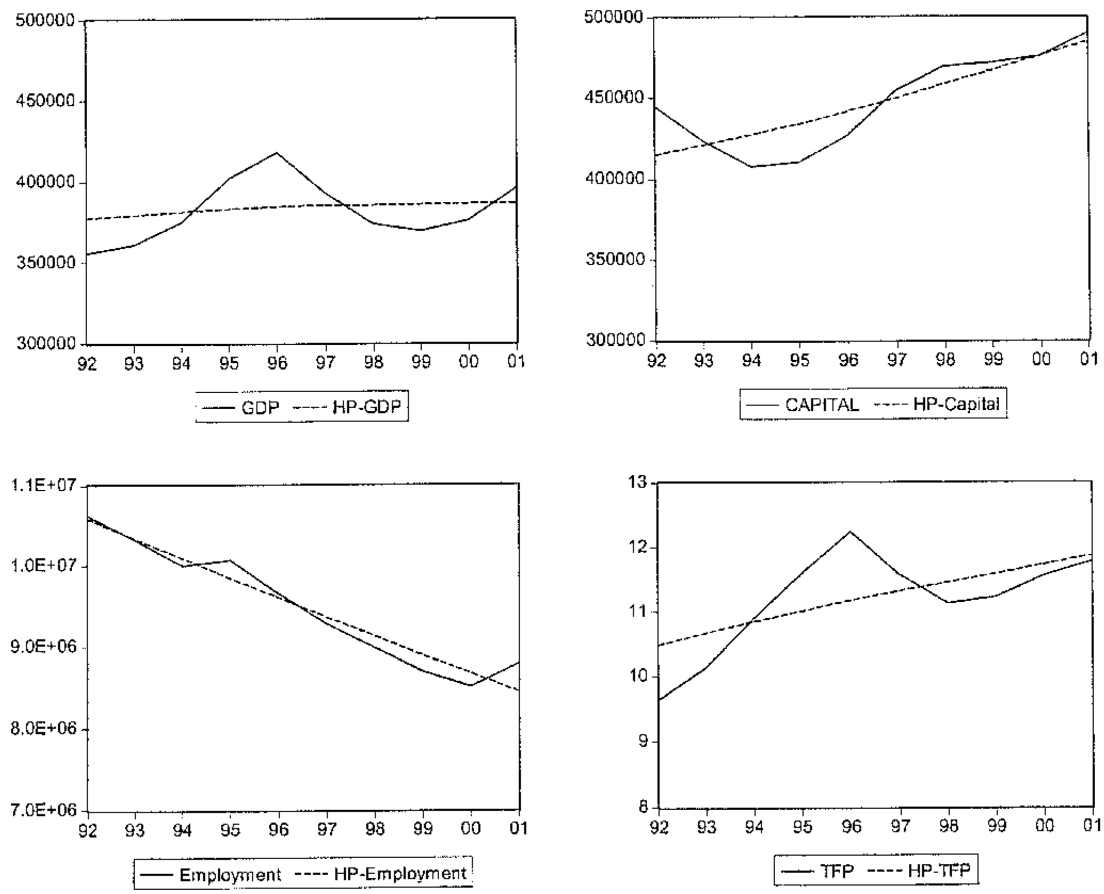
[1] Prepared by Thomas Harjes.

[2] The labor force fell by 1.5 million people or 13.3 percent, moderating the effects on the unemployment rate, which increased from 3.5 percent in 1992 to 8.6 percent in 2001.

Figure 1: The Evolution of the Gross Domestic Product, Employment, Capital and Total Factor Productivity in Romania: 1992–2001[3].



[3] The GDP and capital estimates are in constant 1998 prices. The trend is derived by applying a Hodrick-Prescott (HP) filter. It should be noted that the HP-filter tends to perform poorly at endpoints. In addition, the fact that Romania experienced a serious balance of payments crisis during 1997–1999 seriously hampers an economic interpretation of the HP-trend, such as potential output.

Table 1. Sources of Growth, 1992–2001
(In percent per annum).

GDP Growth	Contribution of Capital Accumulation	Contribution of Employment Growth	Contribution of Total Factor Productivity Growth
	Capital share = 0.33 and Labor share = 0.67		
1.19	0.36	-1.39	2.26
	Capital share = 0.4 and Labor share = 0.6		
1.19	0.43	-1.26	2.04
	Capital share = 0.5 and Labor share = 0.5		
1.19	0.54	-1.05	1.72

B. Growth Outlook for 2002–05

4. Despite the disappointing history, we would consider that 5 percent annual output growth over the medium term is feasible under certain policies. The authorities' Pre-accession Economic Program projects a similar GDP growth of 5.1 percent on average in 2002–2005.

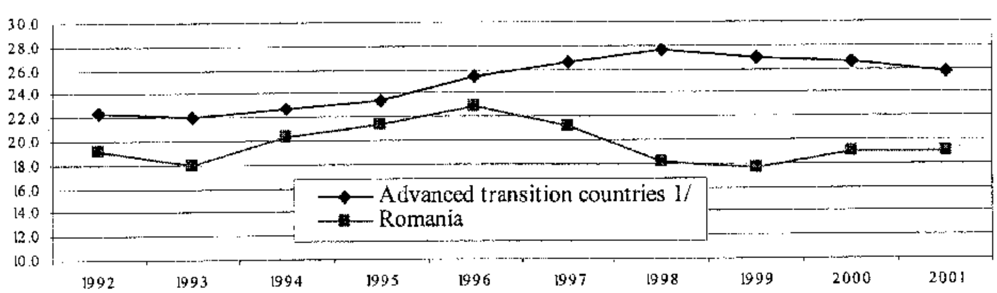
5. Given Romania's prolonged capital scarcity, capital accumulation could become the major driving force of growth. During the past decade, the investment to GDP ratio hovered around 20 percent. With a large number of companies becoming obsolete, the depreciation rate was high, which did not allow for a sustained increase in the capital stock. Given the still low current level of the capital stock, a modest increase in the investment rate by 1.3 percentage points of GDP could push up real capital's contribution to output growth to about 2 to 3 percentage points (see Table 2 and the Appendix). The recent expansion in private investment activities, spurred by private investment in export-oriented industries, bodes well for an increase in the investment rate, which following the 1997 crisis still lags behind other transition countries (Figure 2). Restructuring in the industrial sector and public investments in infrastructure in preparation for EU accession should further consolidate investment growth and narrow the gap between Romania's investment rate and that of other more advanced transition countries.

Table 2. Projected Sources of Growth, 2002–05
(In percent per annum).

GDP Growth	Contribution of Capital Accumulation	Contribution of Employment Growth	Contribution of Total Factor Productivity Growth
	Capital share = 0.33 and Labor share = 0.67		
5.00	2.03	0.00	2.97
	Capital share = 0.4 and Labor share = 0.6		
5.00	2.46	0.00	2.54
	Capital share = 0.5 and Labor share = 0.5		
5.00	3.08	0.00	1.92

Note: See appendix for detailed calculations and implicit assumptions.

Figure 2: The Fixed Capital Formation Rate in Romania and Other Advanced Transition Countries, 1992-2001



1/ Unweighted average of the Czech, Hungarian, Polish, Slovak and Slovenian investment rates (gross fixed investment).

6. We do not expect the decline in the labor force to continue. If political stability and sound economic policies prevail in the medium term, labor migration, which has caused a severe brain drain in the past, should cease. Though continued restructuring could result in further layoffs, new industries and the service sector should be able to absorb these workers.

Therefore, the unemployment rate is expected to stay around its current level of about 9-10 percent.

7. Finally, further institutional improvements, more efficient management structures and accelerated human capital accumulation should sustain productivity gains. To arrive at 5 percent real growth, annual TFP growth would have to be at about 2–3 percent, about 0.5-0.7 percentage points higher than in the recent years.

APPENDIX

Estimation of the Capital Stock, 1992–2001

We estimate the change in the capital stock based on the following equation:

$$K_{t+1} - K_t = I_t - \delta K_t, \qquad \text{or equivalently,} \qquad \frac{K_{t+1} - K_t}{K_t} = \frac{(I_t / Y_t)}{(K_t / Y_t)} - \delta,$$

where I denotes gross investment, K the capital stock, Y the gross domestic product and δ the depreciation rate. The investment rates are known and the initial capital-output ratio is estimated based on the ratio of Romanian to German per capita GDP (at PPP) in 1992 which was 26.7 percent. We further assume that the difference in per capita GDP is not exclusively due to different real capital endowments but that half of it can be explained by other factors such as human capital, institutions etc. Based on a Cobb-Douglas production function and a capital share of one third we get:

$$\frac{(K\ /Y\ )}{(K_t^* / Y_t^*)} = \left(2 * \frac{(Y_t / L_t)}{(Y_t^* / L_t^*)}\right)^{\frac{1-\alpha}{\alpha}} = 0.534^2 = 0.2852,$$

that is, in 1992 the German real capital-output ratio is estimated to be 3.5 times the size of Romania's. With a German ratio of 4.6 in 1992 we arrive at a capital-output ratio of about 1.3 for Romania.

For the depreciation rate, we assume a declining path which is supposed to capture the fact that, especially in the beginning of transition, a lot of capital equipment became obsolete. Depreciation starts at 20 percent and continuously declines to 10 percent in 2002.

Estimation of Capital's Contribution to GDP Growth in the Medium Term

Given that Romania's real capital-output ratio is estimated to have remained roughly constant over the past years at about 1.3 and assuming a constant depreciation rate of 10 percent and an average investment rate (gross fixed investment) of 21 percent, we get an estimate of 6.2 percent capital growth. Assuming capital shares of 0.33, 0.4 and 0.5 would yield a capital contribution of 2.03, 2.46 and 3.08, respectively.

III. THE ROMANIAN LABOR MARKET [1]

1. This chapter lays out the basic features of the Romanian labor market and points to the main policy challenges in a medium-term perspective. It acknowledges the importance of improving the Romanian labor market performance in a sound and sustained manner, particularly through strong job creation in the private sector. It argues in favor of a reduction in the tax burden on labor, a prudent wage policy and flexible employment regulations needed to preserve competitiveness and broaden the scope of the formal sector. In SOEs, the paper advocates tightening the links between wage or employment decisions and economic performance and productivity. Better targeted active labor market policies would help cushion the social impact of enterprise restructuring and address the current skill mismatch. This includes in particular, additional retraining efforts and improvements in the educational curriculum. Finally, the investment climate must be improved to promote growth and employment in dynamic exporting SMEs and the services sector.

A. Aggregate Labor Markets Trends

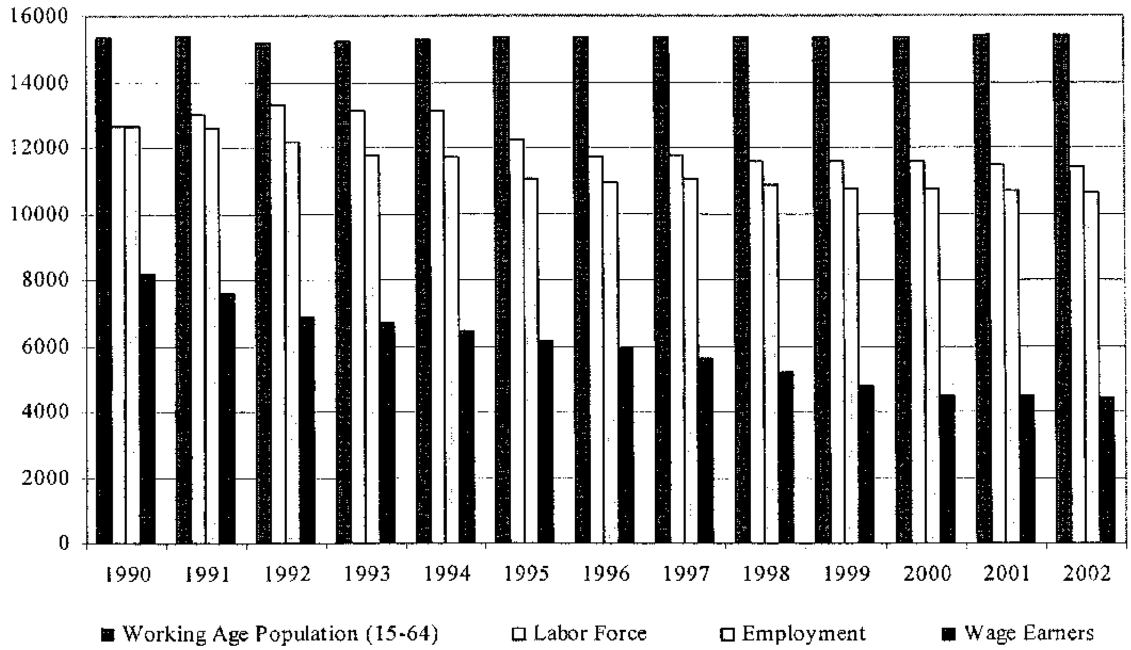
2. **Romania's working age population of 15.4 millions is currently growing at a modest 0.2 percent a year**. Despite a declining and aging total population and large emigration in the early 1990s, the country now benefits from the entry of relatively large cohorts in adulthood (Figure 1). Total population, which fell by about 1 million since the early 1990s to the current level of around 22 millions, is thought to decline by 0.1-0.2 percent per year.

3. **The decline in labor force and total employment that affected the economy throughout the 1990s has recently slowed down**. The labor force decreased by about 1.2 million (or 9 percent) in the past decade, implying a sharp drop in the participation rate. Over the same period, employment fell by about 2 millions (or 16 percent). In the past two years however, both the labor force and total employment appear to have reached a standstill. More tellingly, the number of wage earners stopped declining in 2001 for the first time during the transition, although a decline of 2–3 percent is expected for 2002, reflecting layoffs in state-owned enterprises.

4. **The unemployment rate appears moderate for a transition economy but masks large underemployment** (Figure 2). Seasonally-adjusted, the official unemployment rate dropped to 8.6 percent in October 2002, while the unemployment rate measured according to the ILO methodology has recently been even lower by about 2 percentage points. However, as in other transition economies, the large use of early retirement packages has somewhat mitigated the unemployment effects of the restructuring process. Besides, and more

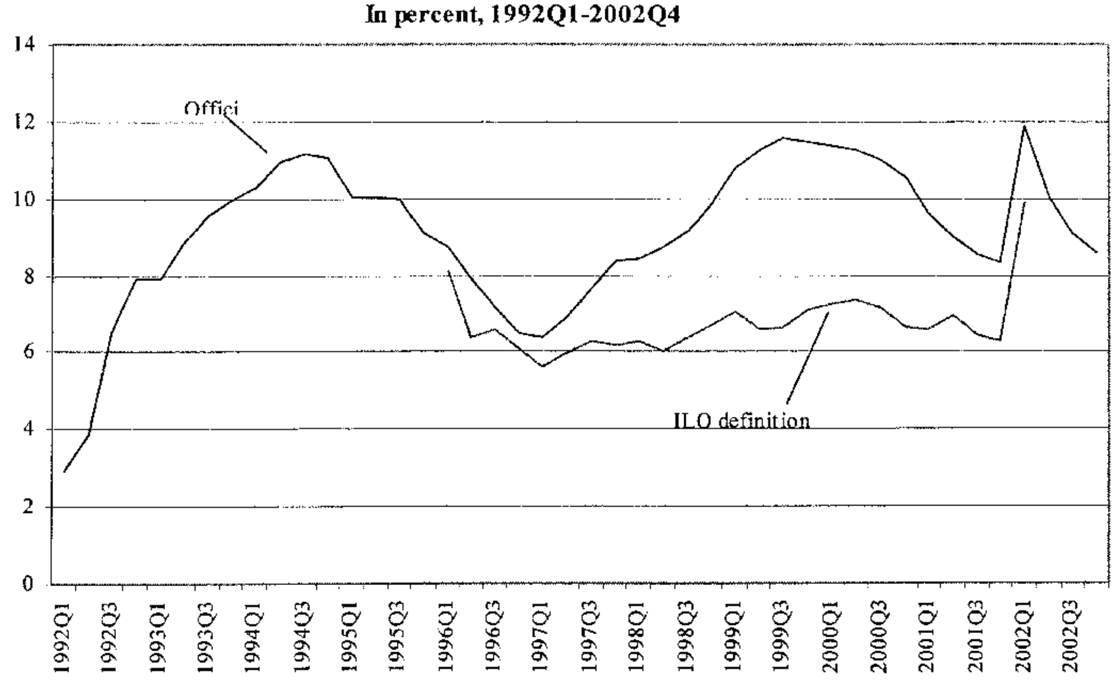
[1] Prepared by Nicolas Carnot.

Figure 1: Aggregate Labor Market Trends
In thousands, 1990-2002



Sources: Romania Statistical Yearbook; Labor market surveys; and Fund staff estimates.

Figure 2: Unemployment Rate (Seasonally Adjusted)
In percent, 1992Q1-2002Q4



Sources: Ministry of Labor and Social Protection; and Labor market surveys.
Note: The spike in 2002Q1 reflects the (largely temporary) registration to the minimum income scheme.

distinctive of the Romanian experience, the rural sector has to a large extent acted as an employer of last resort since the beginning of the transition, resulting in a rising share of agriculture in total employment. Underemployment of the existing workforce is therefore thought to be widespread, particularly in rural areas.

5. **Unemployment average duration is high at over 18 months, pointing to skill mismatch, insufficient labor mobility and other structural problems.** The evidence suggests low inflows and outflows into and out of employment. Long-term unemployed (over a year) represent about half of job-seekers and are over-represented in age group 35–49. Meanwhile, youth unemployment is also high at 25 percent. Unemployed are overwhelmingly found among workers with low to medium skills, particularly vocational graduates (Figure 3). Regional labor mobility also appears insufficient, as evidenced by more strained labor market conditions in areas of former industrial strongholds (Figure 4).

Figure 3: Undemployment Distribution by Training Level. In thousands, 2002Q1.

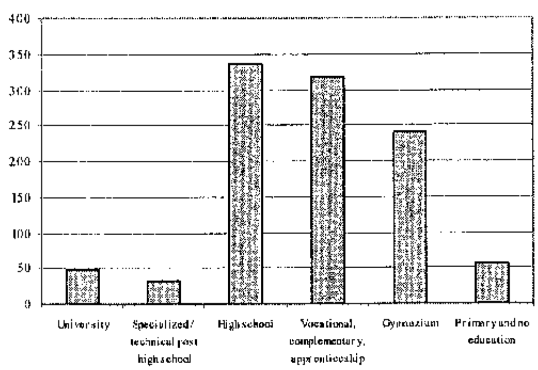
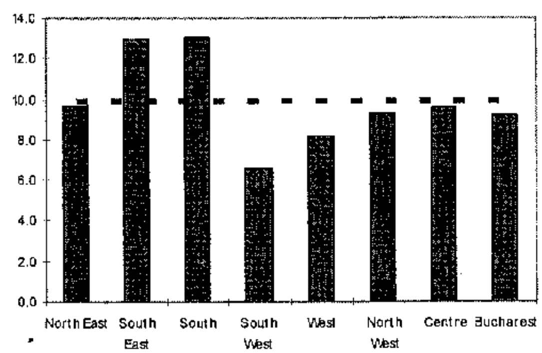


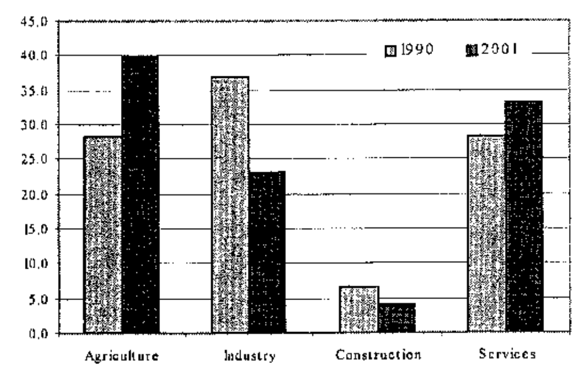
Figure 4: Unemployment Distribution by Regions In percent, 2002Q1.



Source: Quarterly labor force surveys.

6. **The reallocation of labor across sectors initiated by the transition has not yet been completed** (Figure 5). Despite substantial job losses in heavy manufacturing and construction activities, services remain under-represented in the employment structure, heralding further large adjustments. A shrink in the share of agriculture can also be expected in the medium run, particularly in the context of EU accession.

Figure 5: Distribution of Employment by Sectors Shares in percent.

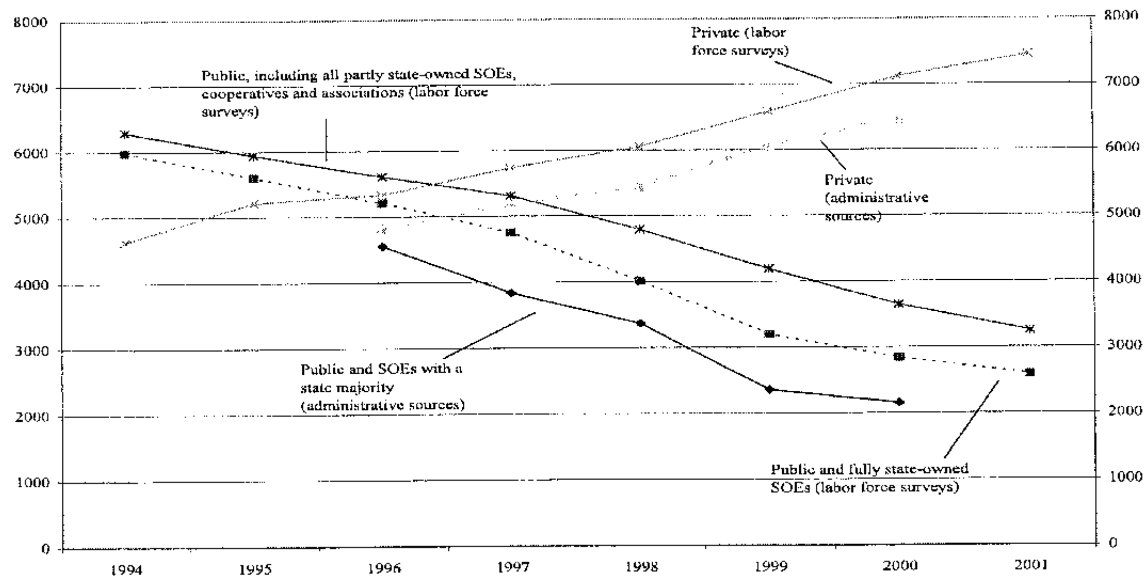


Source: Romanian Statistical Yearbooks.

7. **Public sector employment still comprises about 30 percent of the workforce** (Figure 6). In fact, the share of public jobs rises to close to 50 percent in urban areas or when considering employees only. The state continues to enjoy virtually full control over utilities and is still significantly involved in manufacturing activities, with most large state-owned enterprises (SOEs) operating at loss. The current government rightly intends to pursue public

employment downsizing. In the budgetary sector, further reductions are needed along with recruitments of skilled workers in certain areas (notably to cope with EU accession). However, the critical task will be to accelerate the restructuring and privatization of SOEs in an undistorted manner. The authorities currently face considerable pressures to incorporate employment and investment clauses in privatization contracts, but this imperils the efficiency of the restructuring process and jeopardizes transparency.

Figure 6: Public and Private Employment
In thousands, 1994-2001.



Sources: Romanian Statistical Yearbooks, Labor force surveys and Fund staff estimates.

8. **The informal sector is large, although it comprises primarily second-rate jobs.** Data on the grey economy is scarce but indirect evidence can be inferred from comparing administrative employment figures to labor force surveys. At least 1.5 million jobs (or about 15 percent of the labor force) could thus be attributed to informal activities in 2000. Large taxes and other non-wage labor costs have no doubt encouraged the growth of the underground economy in recent years (see below), but the sheer lack of opportunities in the formal sector also contributed to it. Moreover, informal jobs are often only part-time or seasonal, particularly in rural areas where family-based agriculture is widespread. Other sectors with a high share of informal jobs include hotels and restaurants, trade and transports and some manufacturing activities.

B. Labor Market Institutions and Policies

9. **The employment legislation has been flexible so far but is currently being revisited.** Basic and not over-constraining provisions on working hours, statutory leave, minimum wage and health standards apply to all individual labor contracts. Fixed-term contracts are allowed in practice. The Labor Code, the main labor law, is currently being

revised as part of Romania's transposition of EU acquis. In this context, it will be important to avoid introducing too cumbersome regulations, particularly on hiring and dismissal, the potential adverse effects of which have been evidenced in several developed countries, notably in Continental Europe. In addition, more flexibility is needed in SOEs, where the same framework applies in principle but powerful trade unions and political interference often hamper the adoption of decisions on retrenchment.

10. **The bill on restricting the so-called "civil contracts" corrects an existing loophole in the regulatory framework**. According to the legislation in place, work could be rendered under a civil service agreement (and outside the framework of ordinary labor contracts) for specific tasks not exceeding an average three hours per day. As many as 1.7 million such contracts were registered in mid-2002, of which about 1 million reportedly represented the main activity of the individuals (as opposed to a complementary source of income). Workers under a civil contracts are exempted from social security payments for pensions benefits. The current reform plan would convert a substantial fraction of the contracts into regular part-time labor contracts with compulsory social insurance. Nevertheless, the risk that these activities will cease to be reported should be acknowledged, and addressed by strengthened labor inspection and tax administration.

11. **The wage determination framework, which is mainly decentralized, works well in the private sector**. Annual collective wage bargaining is conducted at the national, sectoral and enterprise levels, and arrangements reached at higher level are binding for lower-level negotiations. However, national agreement are usually not restrictive and mainly serve the purpose of defining a uniform framework for wage settlements, leaving ample scope for wage differentiation in the private sector. In SOEs, however, the persistence of soft budget constraints blurs the link between wage setting and economic performance, with potentially adverse spillover effects on the rest of the economy.

12. **Unemployment benefits may need to be better targeted**. Former employees in the formal sector and self-employed who contributed to the system are generally entitled to unemployment compensation. The law on unemployment insurance and employment stimulation, which entered into force in March 2002, introduced a uniform unemployment indemnity of 60 percent of the national minimum wage, irrespective of individuals' previous wages. Depending on the duration of past contributions, unemployed can receive the benefits between 6–12 months, after which they may benefit from the more general minimum income scheme. This generally entails a further significant drop in revenues. For instance, the allowance for a single person under this scheme will amount to about 30 percent of the minimum wage as of January 2003. Overall, the system leads to rather low effective replacement rates. This may constitute another obstacle to restructuring and privatization in

the public sector, an issue that in the past the authorities have generally addressed by offering generous severance payments package. [1]

C. Labor Costs

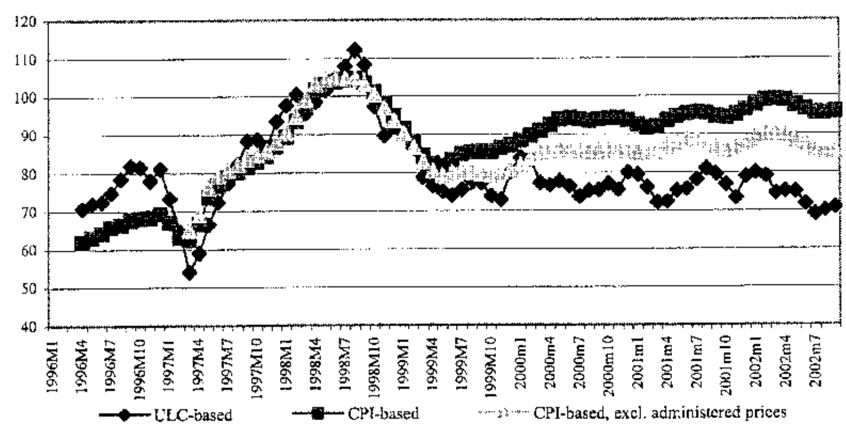
13. **Economy-wide wage levels appear moderate when compared to other transition economies** (Table 1). In 2002, wage earners (excluding civil contracts) should get a modest 26 percent of GDP, and the full labor share in output can be estimated at 50-55 percent.[2] Relatively low wages compared to productivity, as approximated by GDP per capita, provides Romania with a competitive edge in labor-intensive industries such as clothing, footwear or furniture. Moreover, ULC-based indicators of external competitiveness have stayed flat or even slightly improved in recent years, thanks to productivity increases and despite an appreciation of the (CPI-based) real effective exchange rate (Figure 7).

Table 1: Wages in Selected Transition Economies (2000-01)

	U.S. dollar Gross Wage	Annual Wage to Per Capita GDP
Bulgaria	124	98
Croatia	597	161
Czech Republic	358	81
Hungary	336	82
Poland	505	140
Romania	**140**	**98**
Slovak Republic	270	87
Slovenia	872	107

Source: EBRD and Fund staff estimates.

Figure 7: Real Effective Exchange Rate
3-month moving average, 1996-2002.



Source: Romanian authorities and Fund staff estimates.

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[1] Another puzzling fact is the small intersection between registered unemployed and unemployment as measured in labor force surveys: at least half of ILO unemployed appear not to receive unemployment benefits, whereas some benefits recipients are employed according to ILO definitions, notably subsistence farmers for whom unemployment compensation complement their revenues.

[2] Including wage earners and civil contracts, the wage share would be slightly above 30 percent. The estimate of 50–55 percent relies on an *ad hoc* adjustment to factor in self-employment and the informal sector.

14. **Meanwhile, social security contributions are excessive with an overall rate of 57 percent in 2002**. Payroll taxes were increased in the late 1990s in the hope of raising revenues. In fact, these hikes have shrunk the collection base through the expansion of informal activities and the widespread practice of under-declaring wage payments. This heavy fiscal burden lowers labor demand and curbs incentives to reward the most efficient workers. The authorities are aware of the problem and, following a 3 percentage points reduction of the rate in 2002, will cut it by another 5 percentage points in January 2003, to reach 52.5 percent.[3] Further cuts will be necessary in the future, albeit gradual to maintain revenues at an acceptable level.

15. **Public sector wages are generally higher than in the private sector, entailing budgetary costs and strong resistance to restructuring in SOEs.** Admittedly, part of the premium on public sector wages might be justified by specialized skills in industrial processes, for example in the energy sector. Besides, as noted above, private employers tend to under-report wage payments. However, it is questionable that wage disparities truly reflect productivity differences, even within the public sector (Figure 8). A plausible alternative explanation is that powerful unions, particularly in public utilities, are successful in rent-extraction. Supporting this hypothesis is the fact that besides higher initial levels, wage increases also tend to be higher in SOEs than in the rest of the economy (Figure 9). Linking wage growth to profitability, presence of arrears and productivity growth is still in infancy and is not institutionally well-established.

16. **Future increases in the minimum wage will need to be weighed against the necessities of preserving employment and maintaining Romania's comparative advantage.** At about 30 percent of the average wage in 2002, the minimum wage appears relatively low and non-binding for most of the workforce. However, the recent decision to raise it by about 43 percent in January 2003 will likely fuel across-the-board wage demands, particularly in the public sector, and thus put at risk macroeconomic stabilization. What is more, further increases would quickly threaten the profitability of consumer goods industries, a key driver of Romania's recent growth. Indeed, average wages in sectors such as textiles or trade barely exceed the new minimum wage (Figure 10).

17. **The case for moving cautiously with minimum wage increases in the future is made stronger by the planned conversion of civil contracts into regular part-time jobs.** The popularity of these contracts points to the need for flexible wage arrangements for some segments of the workforce.

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[3] The net reduction amounts to 4.5 percent only as an accident insurance fund will be introduced with a contribution rate of 0.5 percent.

Figure 8: Monthly Net Average Wage in the Public Sector
Jan-Sep 2002 average in thousand lei.

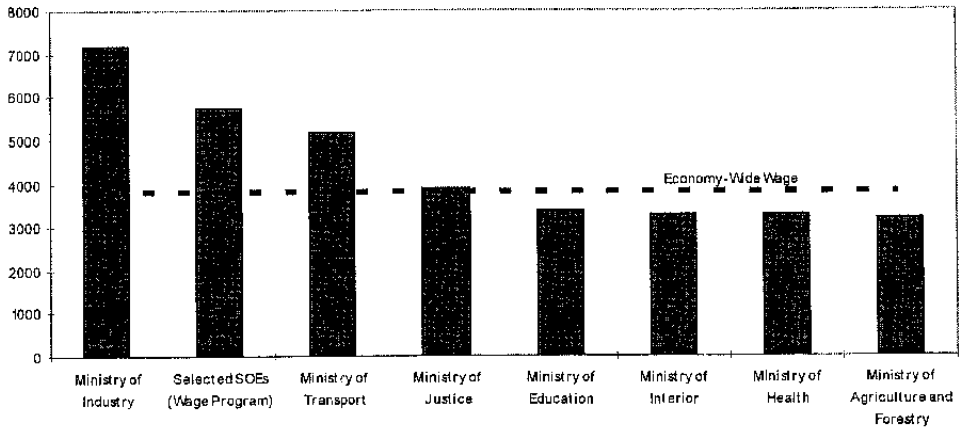


Figure 9: Net Real Wage Growth
12-month growth in percent, Jan 2001 - Sep 2002.

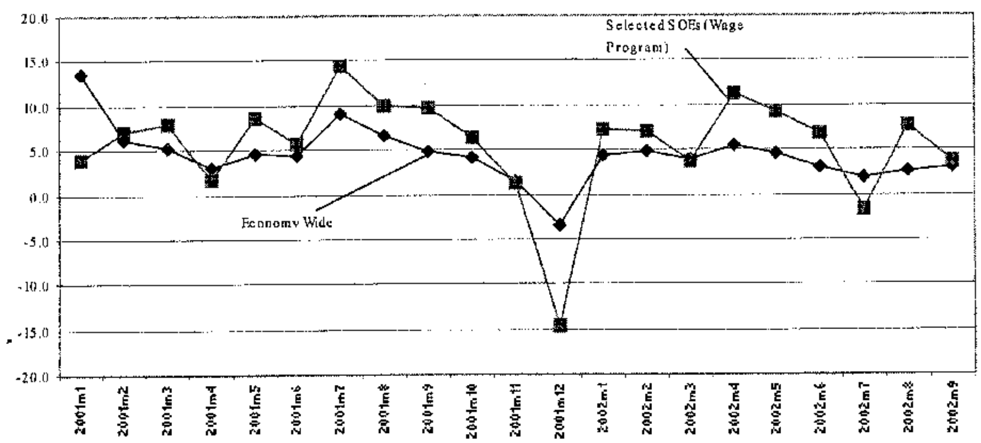
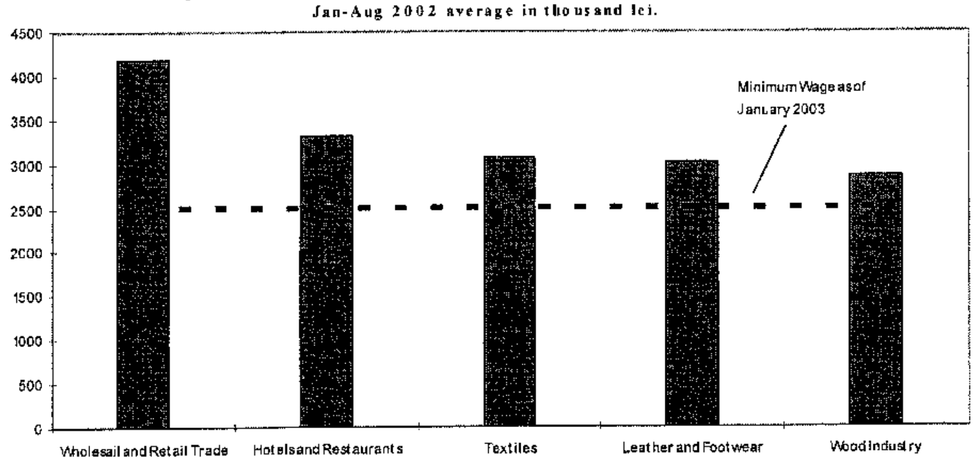


Figure 10: Monthly Gross Average Wage in Selected Economic Sectors
Jan-Aug 2002 average in thousand lei.



D. Conclusions

18. The performance of the labor market must be improved to sustain the current reform momentum. The recent stabilization of aggregate employment and the growth spur in some labor-intensive sectors are encouraging signs. Sound macroeconomic and labor market policies will need to be implemented to complete the reallocation of labor across sectors and decisively boost the creation of private sector jobs. These include:

- **Consolidate macroeconomic stabilization,** so as to avoid boom and bust cycles damaging to jobs and productive investments. It will also be important to prevent a too fast real appreciation of the exchange rate, in order to preserve external competitiveness and fully reap the benefits of Romania's comparative advantages

- **Place wage bill setting in the public sector on a sound and lasting footing**. In SOEs in particular, wage and employment decisions should be more tightly linked to economic performance and productivity. Increases in public wages as well as the minimum wage should take into account expected inflation and potential spillover effects to private wages.

- **Encourage the creation of private jobs in the formal sector**. Further reductions in social security taxes are required in the medium-run, in line with improvements in tax administration. At the same time, the authorities should refrain from introducing too cumbersome employment regulations, particularly in the areas of hiring and firing and labor conflicts.

- **Favor labor market policies geared toward successful job search**. For instance, large layoffs due to necessary restructuring are as a rule better addressed by efficient retraining than by sheer severance payments. In a similar vein, the education curriculum may also need to be adapted to promote skills often quoted as relatively scarce in Romania, e.g., marketing expertise.

- **Further improve the business environment**. A range of actions is needed in this regard, including cutting on red tape, streamlining the tax system, speeding up the privatization process and lifting the remaining barriers to enterprise creation.

Table 1. Romania: GDP by Origin, 1993-2001

	1993	1994	1995	1996	1997	1998	1999	2000	2001 1/
				(In billions of lei; at current prices)					
Total	20,036	49,773	72,136	108,920	252,926	373,798	545,730	800,308	1,154,126
Agriculture and forestry	4,206	9,898	14,269	20,949	45,533	53,773	72,805	88,537	154,311
Industry	6,781	18,018	23,711	36,182	78,094	98,213	135,344	201,953	297,246
Construction	1,040	3,251	4,755	7,067	13,230	19,029	27,377	39,822	57,977
Trade	2,058	4,076	7,570	12,722	28,768	50,403	74,599	115,154	...
Other	5,951	14,530	21,830	32,000	87,301	152,380	235,605	354,842	644,592
				(Sectoral GDP shares; in percent)					
Agriculture and forestry	21.0	19.9	19.8	19.2	18.0	14.4	13.3	11.1	13.4
Industry	33.8	36.2	32.9	33.2	30.9	26.3	24.8	25.2	25.8
Construction	5.2	6.5	6.6	6.5	5.2	5.1	5.0	5.0	5.0
Trade 1/	10.3	8.2	10.5	11.7	11.4	13.5	13.7	14.4	...
Other	29.7	29.2	30.3	29.4	34.5	40.8	43.2	44.3	55.9

Source: National Institute of Statistics. ESA 79 methodology in 1993-97, ESA 95 methodology in 1998-2001.

1/ Provisional data.

Table 2. Romania: GDP by Expenditure, 1993-2001

(In percent)

	1993	1994	1995	1996	1997	1998	1999	2000	2001 1/
					(Real annual change)				
GDP	1.5	3.9	7.1	3.9	-6.1	-4.8	-1.2	1.8	5.3
Total consumption	1.2	3.8	10.8	7.0	-4.3	1.1	-2.5	1.1	5.7
Households	0.9	2.6	13.0	8.0	-3.7	0.6	-2.5	-0.9	6.7
Public & private	2.8	9.5	1.1	1.9	-7.5	4.5	-2.5	10.4	1.4
Gross fixed capital formation	8.3	20.7	6.9	5.7	1.7	-5.7	-4.8	4.6	6.6
Exports	11.1	19.0	17.0	2.0	11.4	-1.7	10.5	24.1	10.6
Imports	4.4	2.8	16.3	8.7	7.5	11.3	-1.5	28.2	17.5
					(Shares of GDP)				
GDP	100.0	100.0	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	90.3	88.7	85.9	86.2
Households	63.2	63.2	67.3	69.1	73.6	74.9	73.2	69.1	70.3
Public & private	12.8	14.0	14.0	13.5	12.8	15.4	15.6	16.8	16.0
Gross fixed capital formation	17.9	20.3	21.4	23.0	21.2	18.2	17.7	18.9	19.0
Changes in stocks	11.1	4.5	2.9	2.9	-0.6	-0.5	-1.6	0.8	2.9
Net exports	-5.0	-2.0	-5.6	-8.5	-7.0	-8.0	-4.8	-5.6	-8.1
Exports	23.0	24.9	27.6	28.1	29.2	22.6	28.0	33.0	33.5
Imports	28.0	26.9	33.2	36.6	36.2	30.6	32.8	38.6	41.6
					(Contributions to GDP growth)				
GDP	1.5	3.9	7.1	3.9	-6.1	-4.8	-1.2	1.8	5.3
Total consumption	1.0	2.9	8.3	5.7	-3.5	1.0	-2.3	1.0	4.9
Households	0.5	1.7	8.2	5.4	-2.5	0.4	-1.9	-0.6	4.7
Public & private	0.4	1.2	0.1	0.3	-1.0	0.6	-0.4	1.6	0.2
Gross fixed capital formation	1.6	3.7	1.4	1.2	0.4	-1.2	-0.9	0.8	1.2
Changes in stocks	-2.5	-6.3	-2.4	-0.6	-3.4	0.0	-0.8	2.5	2.4
Net exports	1.5	3.6	-0.2	-2.3	0.5	-4.6	2.8	-2.5	-3.3
Exports	3.1	4.4	4.2	0.6	3.2	-0.5	2.4	6.8	3.5
Imports	1.6	0.8	4.4	2.9	2.7	4.1	-0.5	9.3	6.8

Source: National Institute of Statistics. ESA 79 methodology in 1993-97 and ESA 95 methodology in 1998-2001.

1/ Provisional data.

Table 3. Romania: Investment by Sector, 1993 - 2000
(In billions of lei at current prices)

	1993	1994	1995	1996	1997	1998	1999	2000
Industry	1410.8	2951.8	5402.4	9186.8	19771.6	27568.1	37172.0	49394.1
Construction	78.2	431.0	678.8	1309.8	3675.8	4226.9	5766.7	10672.7
Agriculture and forestry	196.4	1528.6	1420.3	2427.4	2889.8	4088.4	5932.8	9880.7
Transport	316.8	750.3	710.5	1286.4	2332.6	3472.7	5325.0	10650.8
Telecommunications	134.1	300.1	368.4	761.1	3015.7	4588.9	9404.4	12416.3
Trade	272.5	678.6	1144.2	2071.0	3868.3	7220.3	7688.7	14971.4
Education	16.9	67.2	109.0	295.1	709.7	768.3	588.3	82.7
Health and social assistance	20.6	43.4	104.8	166.1	355.5	581.0	456.8	175.3
Public administration and defense	56.3	291.8	577.9	808.9	2703.4	2286.9	4423.5	5356.1
Financial sector	80.6	311.3	471.9	830.5	2070.8	3002.0	3870.4	5582.2
Other	238.6	650.5	2007.3	1802.2	2741.5	2711.7	3319.5	5804.9
Investment in the national economy	2821.8	8004.6	12995.5	20945.3	44134.7	60515.2	83948.1	124987.2
Of which:								
State sector	1958.5	4692.7	6898.5	10704.9	20083.6	21669.9	25357.5	32420.7

Source: National Institute of Statistics.

Table 4. Romania: Saving-Investment Balance, 1993-2001

(Current prices)

	1993	1994	1995	1996	1997	1998	1999	2000	2001 1/
					(Billions of lei)				
Gross domestic saving	4804	11223	13439	19142	34148	36246	62126	115648	159991
Net factor receipts and transfers from abroad	50	271	274	965	2489	3659	3085	10909	23361
Gross national saving	4854	11494	13714	20107	36638	39905	65212	126558	183352
Non government	4081	9871	12331	19638	37784	46498	69925	134332	184383
General government	773	1623	1383	469	-1147	-6593	-4714	-7774	-1031
Gross investment	5796	12348	17510	28160	52171	66334	87741	157680	252650
Non government	4952	9619	13708	22478	40065	52803	72726	133198	216101
General government	844	2729	3802	5682	12106	13530	15015	24482	36549
Non-financial sector balances	-942	-854	-3796	-8053	-15534	-26428	-22529	-31123	-69289
Non government	-871	252	-1377	-2840	-2281	-6305	-2801	1133	-31718
General government	-71	-1106	-2419	-5213	-13253	-20123	-19729	-32256	-37580
External current account	942	854	3796	8053	15534	26428	22529	31123	69289
Memo: Nominal GDP	20036	49773	72136	108920	252926	373798	545730	800308	1154126
					(Percent of GDP)				
Gross domestic saving	24.0	22.5	18.6	17.6	13.5	9.7	11.4	14.5	13.9
Net factor receipts and transfers from abroad	0.3	0.5	0.4	0.9	1.0	1.0	0.6	1.4	2.0
Gross national saving	24.2	23.1	19.0	18.5	14.5	10.7	11.9	15.8	15.9
Non government	20.4	19.8	17.1	18.0	14.9	12.4	12.8	16.8	16.0
General government	3.9	3.3	1.9	0.4	-0.5	-1.8	-0.9	-1.0	-0.1
Gross investment	28.9	24.8	24.3	25.9	20.6	17.7	16.1	19.7	21.9
Non government	24.7	19.3	19.0	20.6	15.8	14.1	13.3	16.6	18.7
General government	4.2	5.5	5.3	5.2	4.8	3.6	2.8	3.1	3.2
Non-financial sector balances	-4.7	-1.7	-5.3	-7.4	-6.1	-7.1	-4.1	-3.9	-6.0
Non government	-4.3	0.5	-1.9	-2.6	-0.9	-1.7	-0.5	0.1	-2.7
General government	-0.4	-2.2	-3.4	-4.8	-5.2	-5.4	-3.6	-4.0	-3.3
External current account	4.7	1.7	5.3	7.4	6.1	7.1	4.1	3.9	6.0

Sources: National Institute of Statistics; and Fund staff estimates.

1/ Provisional data.

Table 5. Romania: Employment in Agriculture (Including Self-Employed), 1993-2000

(In thousands of persons, end of year)

	1993	1994	1995	1996	1997	1998	1999	2000
Total employment in agriculture	3,537	3,561	3,187	3,249	3,322	3,296	3,419	3,523
Private farms	3,139	3,242	2,926	3,000	3,156	3,143	3,332	3,463
State farms (public and mixed)	398	319	261	249	166	153	87	60
Agro processing (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	8,420	8,629
Employment in agriculture (percent of total)	35.2	35.6	33.6	34.6	36.8	37.4	40.6	40.8

Sources: National Institute of Statistics.

Table 6. Romania: Distribution of Land Ownership, 1993-2002

(In thousands of hectares)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002 1/
Total land area	14,793	14,798	14,797	14,789	14,794	14,802	14,731	14,857	14,852	...
Of which:										
Private	10,336	10,371	10,694	10,694	10,431	10,475	11,432	14,218	14,310	...
(for which titles distributed) 2/	1,353	3,724	5,738	6,771	7,268	7,688	8,018	7,153	7,421	8,887
Memorandum items:										
Number of titles distributed	566	1,558	2,401	2,833	3,041	3,217	3,356	3,219	3,591	3,977
Number to be distributed	4,990	4,990	4,990	4,242	4,284	4,312	4,334	...	5,124	4,943
(percent of total distributed) 2/	11.3	31.2	48.1	66.8	71.0	74.6	77.4	...	70.1	80.5

Source: Ministry of Public Administration, National Office for Cadastre, Geodesy and Cartography.

1/ September 2002.
2/ Out of 9,200 hectares of land covered by the Land Law.

Table 7. Romania: Output of Main Agricultural Products, 1993-2001

(In thousands of tons, unless otherwise indicated)

	1993	1994	1995	1996	1997	1998	1999	2000	2001
Grains, total	15,493	18,184	19,883	14,200	22,107	15,453	17,037	10,478	18,871
Of which:									
Wheat and rye	5,355	6,187	7,709	3,164	7,186	5,208	4,683	4,456	7,764
Maize	7,987	9,343	9,923	9,608	12,687	8,623	10,935	4,898	9,119
Sunflower seeds	696	764	933	1,096	858	1,073	1,301	721	824
Sugar beet	1,776	2,764	2,655	2,848	2,726	2,361	1,415	667	876
Potatoes	3,709	2,947	3,020	3,591	3,206	3,319	3,957	3,470	3,997
Field vegetables	2,766	2,476	2,783	2,647	2,354	2,754	2,996	2,478	2,826
Fruit	2,183	980	917	1,632	1,416	1,036	936	1,301	1,353
Grapes	1,339	1,033	1,314	1,431	1,179	874	1,117	1,295	1,122
Livestock production									
Meat (live weight)	1,935	1,852	1,846	1,868	1,705	1,672	1,521	1,414	1,415
Milk (in millions of hectoliters)	47.3	53.6	56.8	57.2	56.2	54.3	52.6	51.6	53.2
Eggs (in millions)	5,633	5,407	5,567	5,783	5,271	5,331	5,668	5,711	6,001
Wool (in tons)	26,011	25,141	24,323	23,165	22,120	19,967	18,983	17,997	16,880
Honey (in tons)	9,936	9,820	10,435	11,157	10,543	10,198	11,153	11,746	12,598
Memorandum items:									
Agricultural area									
Total (in thousands of hectares)	14,793	14,798	14,797	14,789	14,794	14,802	14,731	14,857	14,852
Of which:									
Irrigated	3,102	3,104	3,110	3,096	3,089	3,085	3,084	3,082	3,081
Per capita output									
Wheat and rye (in kg.)	235	272	340	140	319	231	209	199	347
Potatoes (in kg.)	163	130	133	159	142	148	176	155	178
Meat (in kg.)	85	82	81	83	76	74	68	63	63
Milk (in liters)	208	236	250	253	249	242	234	230	237

Source: National Institute of Statistics.

Table 8. Romania: Industrial Production Index, 1993-2002 1/

	1991=100										1995=100						1998=100			
	1993 2/		1994 2/		1995 2/		1996 2/		1997 2/		1998 3/		1999 3/		2000 3/		2001 4/		2002 4/	
	Index	Monthly Change	Index	Monthly Change	Index	Monthly Change	Index	Monthly Change	Index	Monthly Change	Index	Monthly Change	Index	Monthly Change	Index	Monthly Change	Index	Monthly Change	Index	Monthly Change
January	70.6	...	71.6	1	74.4	-6	80.8	-11	91.3	-7	82.1	...	72.1	-5	68.3	-5	98.6	...	103.5	-3
February	77.3	9	73.1	2	81.2	9	82.9	3	100.5	10	86.1	5	78.5	9	75.7	11	109.5	11	115.0	11
March	75.5	-2	72.4	-1	83.8	3	92.2	11	100.7	0	85.9	0	76.5	-3	78.7	4	110.7	1	114.3	-1
April	78.8	4	77.7	7	89.2	6	93.0	1	89.3	-11	81.2	-5	75.0	-2	80.8	3	115.4	4	113.9	0
May	77.4	-2	77.4	0	84.1	-6	93.1	0	87.0	-3	84.5	4	73.7	-2	79.4	-2	115.0	0	119.0	4
June	80.2	4	80.4	4	85.0	1	97.1	4	89.8	3	80.0	-5	72.6	-1	82.0	3	114.0	-1	126.0	6
July	71.8	-11	76.7	-5	83.6	-2	90.6	-7	80.9	-10	74.3	-7	69.7	-4	84.0	2	109.5	-4	115.6	-8
August	67.8	-6	75.7	-1	81.9	-2	89.5	-1	74.9	-7	78.4	6	71.0	2	77.9	-7	104.1	-5	...	...
September	73.4	8	77.8	3	88.9	9	98.2	10	79.9	7	85.0	8	76.7	8	87.1	12	115.4	11	...	...
October	77.2	5	81.1	4	89.8	1	98.0	0	86.8	9	85.9	1	79.3	3	85.9	-1	109.3	-5	...	...
November	77.1	0	83.0	2	91.6	2	102.8	5	94.4	9	83.2	-3	80.3	1	89.2	4	116.1	6	...	...
December	70.7	-8	78.7	-5	90.3	-1	97.9	-5	83.9	-11	75.7	-9	71.5	-11	86.2	-3	106.2	-9	...	...
Year Average	74.8	...	77.1	3	85.3	11	93.0	9	88.3	-5	81.9	...	74.7	-9	81.3	9	110.2	...	...	...

Source: National Institute of Statistics.

1/ Series corrected for number of hours worked, but not seasonally adjusted.
2/ 1993-1997 based on 1991 shares.
3/ 1998-2000 based on 1995 shares.
4/ 2001-2002 based on 1998 shares.

Table 9. Romania: Number of Employees by Sector and Type of Ownership, 1995-2001 1/

	1995			1996			1997			1998		
		Private Sector			Private Sector			Private Sector			Private Sector	
	Total employees (1000s)	Total (1000s)	Total 2/ employment in sector (%)	Total employees (1000s)	Total (1000s)	Total 2/ employment in sector (%)	Total employees (1000s)	Total (1000s)	Total 2/ employment in sector (%)	Total employees (1000s)	Total (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
Of which:												
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	1314.5	131.0	8.5	1301.7	151.0	8.6

	1999			2000			2001		
		Private Sector			Private Sector			Private Sector	
	Total employees (1000s)	Total (1000s)	Total 2/ employment in sector (%)	Total employees (1000s)	Total (1000s)	Total 2/ employment in sector (%)	Total employees (1000s)	Total (1000s)	Total 2/ employment in sector (%)
Total economy	4,658.7	1.785.5	100.0	4,646.3	1,979.4	100.0	4,613.1	2,041.8	100.0
Of which:									
Industry	1,980.3	805.9	45.1	1,913.0	928.4	46.9	1,923.8	981.0	48.0
Agriculture and forestry	198.6	58.0	3.2	163.6	56.7	2.9	150.6	66.0	3.2
Transport and telecommunications	366.5	65.2	3.7	368.2	86.4	4.4	353.1	85.9	4.2
Construction	298.2	210.8	11.8	313.5	226.1	11.4	291.3	215.9	10.6
Trade	580.2	480.0	26.9	581.6	488.5	24.7	602.2	495.7	24.3
Other	1234.9	165.0	9.3	1306.4	193.3	9.7	1292.1	197.3	9.7

Source: National Institute of Statistics.

1/ Excludes the self employed.
2/ Distribution by sector of private employees.

Table 10. Romania: Enterprise Payment Arrears, 1995 - 2001

(percentage of GDP)

	1995 Dec.	1996 Dec.	1997 Dec.	1998 Dec.	1999 Dec.	2000 Dec.	2001 Dec.
National economy	25.19	36.27	33.66	35.61	40.36	40.48	35.76
To suppliers	13.37	16.14	15.06	14.99	17.23	17.71	16.55
To other creditors	3.57	6.94	6.20	6.68	9.05	10.31	9.88
To banks	3.13	6.26	5.80	5.97	6.16	3.89	3.57
Of which : Principal	.....	.....	.....	3.62	4.34	2.62	2.40
Of which : Overdue interest	.....	.....	.....	2.36	1.82	1.27	1.17
To Budget	5.12	6.93	6.60	7.96	7.93	8.57	5.75
Private sector	8.15	14.36	13.21	15.37	18.66	17.71	19.28
To suppliers	4.52	7.64	7.60	8.37	9.23	8.88	10.27
To other creditors	2.28	2.42	2.15	2.50	3.50	4.14	4.60
To banks	0.83	2.97	2.29	2.96	4.02	2.24	1.67
Of which: Principal	.....	.....	.....	2.10	3.04	1.52	1.13
Of which: Overdue interest	.....	.....	.....	0.86	0.98	0.72	0.53
To budget	0.53	1.33	1.17	1.55	1.91	2.45	2.75
State sector (50-100% ownership)	15.30	20.39	17.90	17.39	17.44	17.97	12.57
To suppliers	8.16	7.61	5.98	4.95	5.49	5.59	3.70
To other creditors	1.20	4.34	3.54	3.82	4.67	5.32	4.54
To banks	1.46	3.10	3.34	2.67	1.71	1.31	1.63
Of which: Principal	.....	.....	.....	1.32	1.06	0.91	1.10
Of which: Overdue interest	.....	.....	.....	1.35	0.65	0.39	0.53
To budget	4.48	5.34	5.04	5.94	5.56	5.76	2.70
Wholly state-owned	14.01	14.37	10.26	9.69	8.20	9.91	8.17
To suppliers	7.62	5.29	3.52	2.64	3.25	3.95	2.79
To other creditors	0.97	3.24	1.92	2.14	2.44	2.44	2.88
To banks	1.28	1.95	1.59	1.20	0.50	0.43	1.10
Of which: Principal	.....	.....	.....	0.60	0.26	0.31	0.75
Of which: Overdue interest	.....	.....	.....	0.60	0.23	0.12	0.35
To budget	4.14	3.88	3.23	3.70	2.02	3.09	1.40
Mixed ownership	2.11	7.40	10.11	10.47	13.43	12.78	8.24
To suppliers	1.17	3.16	3.91	3.96	4.74	4.86	3.49
To other creditors	0.30	1.25	2.11	2.01	3.07	3.69	2.36
To banks	0.22	1.32	1.92	1.81	1.64	1.22	0.80
Of which: Principal	.....	.....	.....	0.93	1.03	0.80	0.51
Of which: Overdue interest	.....	.....	.....	0.89	0.60	0.42	0.29
To budget	0.42	1.67	2.17	2.69	3.98	3.01	1.59
Mixed with state share >= 50%	1.29	6.02	7.64	7.71	9.24	8.06	4.40
To suppliers	0.54	2.32	2.46	2.31	2.25	1.64	0.92
To other creditors	0.22	1.10	1.62	1.68	2.24	2.88	1.66
To banks	0.19	1.14	1.76	1.47	1.22	0.88	0.53
Of which: Principal	.....	.....	.....	0.72	0.80	0.60	0.35
Of which: Overdue interest	.....	.....	.....	0.75	0.42	0.28	0.18
To budget	0.34	1.45	1.81	2.24	3.54	2.67	1.30
Mixed with state share < 50%	0.82	1.38	2.46	2.76	4.19	4.73	3.83
To suppliers	0.63	0.84	1.45	1.65	2.49	3.22	2.57
To other creditors	0.07	0.15	0.48	0.33	0.83	0.82	0.70
To banks	0.03	0.18	0.16	0.34	0.42	0.34	0.27
Of which: Principal	.....	.....	.....	0.20	0.23	0.19	0.16
Of which: Overdue interest	.....	.....	.....	0.14	0.19	0.15	0.11
To budget	0.07	0.22	0.37	0.45	0.44	0.35	0.29
GDP (billions of lei)	72,136	108,920	252,926	373,798	545,730	800,308	1,154,126

Sources: Romanian Ministry of Finance and Fund staff estimates.

Table 11. Romania: Average Monthly Nominal and Real Wages, 1993-2002

(October 1990 = 100)

		Nominal Wage 1/	Real Wage	Real Wage in Industry
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	63,223	57	58
	July	65,246	56	59
	August	66,681	57	61
	September	68,282	56	57
	October	70,808	57	59
	November	75,057	59	60
	December	87,516	67	67
2001	January	83,172	61	62
	February	78,864	57	60
	March	85,639	60	65
	April	91,894	63	67
	May	88,557	60	64
	June	90,568	60	62
	July	94,875	62	68
	August	95,237	61	66
	September	94,924	60	63
	October	97,522	60	63
	November	100,676	60	63
	December	111,169	65	68
2002	January	111,531	64	62
	February	105,236	59	61
	March	111,374	63	65
	April	120,469	66	69
	May	115,293	62	65
	June	115,626	62	65
	July	119,058	63	68

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

1/ Net of taxes and social security contributions.

Table 12. Romania: Population, Labor Force, and Employment, 1993-2000

(In thousands of persons; end of year)

	1993	1994	1995	1996	1997	1998	1999	2000
Population	22,748	22,712	22,656	22,582	22,526	22,489	22,456	22,431
Of which:								
Working age 1/	13,126	13,188	13,228	13,283	13,328	13,365	13,378	13,437
Of which:								
Labor force 2/	10,245	10,242	9,513	9,049	8,927	8,869	8,578	8,669
Nonworking age	9,622	9,524	9,428	9,299	9,198	9,124	9,078	8,994
Of which:								
Labor force 3/	982	993	979	987	977	968	972	967
Total employment 4/	10,062	10,011	9,493	9,379	9,023	8,813	8,420	8,629
Of which:								
In the state and cooperative sector 5/ (in percent)	56.3	50.8	49.3	48.5	42.5	38.2	33,3	29.6
Total unemployed	1,165	1,224	998	658	881	1,025	1,130	1,007
Percent of labor force								
Of which:								
Receive benefits (in percent)	9.5	9.5	7.4	4.6	6.6	8.1	9.1	7.8
Recipients of unemployment benefits	1,066	1,068	774	462	656	793	872	752
Civilian labor force (total)	11,227	11,235	10,491	10,037	9,904	9,838	9,550	9,636
Labor force								
Participation rate in percent 6/	78.1	77.7	71.9	68.1	67.0	66.4	64,1	64.5

Sources: the National Institute for Statistics

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

2/ Working age and able to work population (excluding working age persons with permanent incapacity to work and working age pensioners), population under vocational training and other categories of population.

3/ Active population not of working age = employees under and over working age who work + other persons under and over working age who work.

4/ Excluding military personnel and staff of public organizations, but including nondependent and public sector employment.

5/ State and cooperative sector includes the following type of ownership: public, mixed, co-operative and community.

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

Table 13. Romania: Monthly Consumer Price Index, 1996-2002

(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	
	2000	100.0	47.6	37.9	14.5	
	2001	100.0	43.9	40.2	15.9	
	2002	100.0	44.7	39.6	15.7	
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	30,366	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	108,509	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	96,353	108,115	178,704	2.8
July		115,791	101,386	112,334	184,211	4.3
August		117,918	102,580	114,672	189,209	1.8
September		121,230	105,619	118,174	193,100	2.8
October		124,579	108,847	120,930	198,861	2.8
November		128,115	111,996	125,149	201,824	2.8
December		131,278	115,336	128,092	205,131	2.5
2001 January		136,122	119,718	130,936	219,511	3.7
February		139,181	123,409	132,601	224,721	2.3
March		142,017	126,466	134,996	227,921	2.0
April		145,784	130,571	138,288	231,408	2.7
May		148,318	133,005	140,722	234,547	1.7
June		150,681	135,635	142,400	237,932	1.6
July		152,650	135,819	145,282	244,680	1.3
August		156,063	136,730	150,931	250,855	2.2
September		159,096	138,656	154,428	257,009	1.9
October		162,982	141,182	158,411	266,568	2.4
November		167,432	142,832	165,982	271,635	2.7
December		171,042	146,499	168,351	279,450	2.2
2002 January		175,028	150,176	172,358	284,173	2.3
February		177,046	151,202	175,035	288,169	1.2
March		177,679	151,890	175,001	291,271	0.4
April		181,305	155,362	177,762	298,620	2.0
May		184,657	158,878	180,287	304,098	1.9
June		186,881	161,266	181,802	307,954	1.2
July		187,822	159,699	184,563	313,990	0.5
August		189,361	160,094	186,331	320,334	0.8
September						
October						
November						
December						

Source: Data provided by the Romanian authorities.

Table 14. Romania: Industrial Producer Prices, 1999-2002 1/

	PPI	Extractive industry	Processing industry	Electricity production	Monthly PPI inflation (in percent)
		(1998=100)			
1999 January	112	108	113	106	...
February	116	112	117	116	3.8
March	124	126	123	126	6.2
April	132	134	132	127	6.7
May	136	135	137	128	3.4
June	144	154	143	149	5.5
July	148	160	147	155	2.9
August	153	169	151	157	3.2
September	159	172	158	157	3.8
October	165	184	164	162	3.9
November	170	186	169	168	3.0
December	177	192	178	168	4.4
2000 January	183	194	185	169	3.5
February	189	198	191	170	3.0
March	194	207	196	172	2.5
April	199	214	202	172	2.9
May	204	218	207	173	2.3
June	214	230	216	192	4.8
July	226	247	225	222	5.7
August	232	252	231	234	3.0
September	242	264	241	242	4.0
October	252	268	252	243	4.2
November	260	270	262	244	3.2
December	266	271	269	245	2.4
2001 January	275	271	279	249	3.4
February	285	301	289	249	3.6
March	291	306	296	251	2.1
April	296	314	300	257	1.5
May	303	328	306	265	2.3
June	307	336	311	267	1.6
July	317	338	319	294	3.0
August	323	355	323	315	2.1
September	330	362	330	318	2.0
October	337	367	337	327	2.1
November	341	371	340	338	1.4
December	346	361	345	347	1.4
2002 January	353	367	352	360	2.0
February	359	376	357	371	1.7
March	365	380	362	381	1.6
April	373	382	368	411	2.3
May	381	404	376	416	2.1
June	386	409	381	418	1.4
July	395	409	388	443	2.3
August 2/	400	415	393	447	1.2

Source: National Institute of Statistics

1/ The data for the period 1996-97 (1992 = 100) have been calculated for the total output delivered to the domestic market and to exports; from the year 1997 (1996=100 and 1998=100), the data refer to the output delivered to the domestic market.

2/ Provisional data.

Table 15. Romania: Private Sector Share of GDP, 1993-2001

(In percent of GDP)

	1993	1994	1995	1996	1997	1998	1999	2000	2001 1/
GDP, total	34.8	38.9	45.3	54.9	60.6	61.4	63.7	65.5	67.1
Of which:									
Industry	11.8	14.1	14.9	18.2	18.7	16.1	15.8	16.5	17.3
Agriculture and forestry	7.3	7.7	9.0	10.6	10.9	8.8	8.5	7.2	9.0
Construction	1.8	2.5	3.0	3.6	3.2	3.1	3.2	3.3	3.4
Trade, other (services)	13.9	14.5	18.5	22.5	27.8	33.3	36.2	38.5	37.5

Source: National Institute of Statistics.

1/ Provisional data.

Table 16. Romania: Private Ownership in Selected Sectors, 1993-2001

(In percent)

	1993	1994	1995	1996	1997	1998	1999	2000	2001 1/
Agriculture	83.5	89.3	89.0	90.1	96.8	96.3	96.7	97.2	97.8
Industry	17.4	23.3	29.9	38.5	42.1	46.0	53.7	57.5	57.7
Construction	26.8	51.6	57.8	69.3	76.6	79.3	81.9	80.9	81.1
Services	29.3	39.1	58.1	66.7	71.5	76.1	76.6	78.3	78.4
Total private sector share of GDP	34.8	38.9	45.3	54.9	60.6	61.4	63.7	65.5	67.1

Source: National Institute of Statistics.

1/ Provisional data.

Table 17. Romania: Ownership Structure of the Enterprise Sector, 1994-2001
(Number of Units)

	1994	1995	1996	1997	1998	1999	2000	2001 1/
Total	636,270	681,519	819,504	862,429	959,830	1,044,702	1,105,703	1,159,152
Private companies	421,676	440,603	548,873	582,411	626,324	661,165	695,043	739,929
State-owned companies	6,951	5,160	3,004	1,991	2,218	2,224	2,224	2,208
Régies autonomes 2/	446	346	281	275	183	153	154	146
Mixed - owned companies (state + private)	2,221	5,189	7,811	9,160	8,908	8,950	8,321	8,304
Co-operative companies	4,176	4,357	4,505	4,652	4,160	5,037	5,093	5,232
Family businesses 2/	38,346	63,367	82,533	90,944	120,043	128,265	133,610	142,537
Self-employed 2/	162,454	162,497	172,497	172,996	197,994	238,908	261,258	260,796
Foreign investors (from total)	38,697	43,487	48,330	53,203	63,255	71,318	79,614	82,424

Source: Data provided by the Romanian authorities (Trade Register).

1/ INSSE- Statistical Business Register.

2/ Provisional data.

Table 18. Romania: Market Privatizations of Enterprises, 1993-2002

Size of Companies	Total No. of Companies 1/	Original No. of Employees	Number of companies privatized										
			1993	1994	1995	1996	1997	1998	1999	2000	2001	2002 2/	Cumulative 1993-2002 3/
Total	6,381	4,040,757	264	595	620	1,245	1,163	1,267	1,401	1,202	122	188	7,218
Small	3,124	497,096	238	472	322	984	952	912	906	936	88	140	5,348
Medium	2,549	1,753,828	24	110	269	236	165	276	425	243	20	29	1,582
Large	708	1,789,833	2	13	29	25	46	79	70	23	14	19	288

Source: The Authority for Privatization and Management of the State Ownership .

1/ Number of companies to be offered for privatization.
2/ September 30, 2002.
3/ The total number of privatized companies differs from the sum of the annual privatizations owing to packages of the same company sold more than once. In addition the initial pool of companies offered for privatization was subsequently enlarged.
Note: As of September 30, 2002, APAPS is a shareholder in 1309 companies, of which in 417 companies it is the majority shareholder, in 339 companies under the reorganization, liquidation and bankruptcy procedures it is a minority shareholder, and in 553 companies APAPS holds a residual share package (post-privatization).

Table 19. Romania: Summary of Consolidated General Government, 1993-2001

(In billions of lei)

	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total revenue (incl. grants)	6,700	15,537	22,642	31,597	72,386	111,000	173,838	251,095	351,741
Current	6,652	15,476	22,580	31,443	71,802	110,867	173,337	249,945	351,108
Tax	6,269	14,042	20,804	29,257	67,000	103,992	164,026	235,048	326,699
Direct tax	4,332	10,028	14,117	19,523	44,248	63,467	100,813	141,970	197,540
Profits	754	1,911	2,811	3,548	10,780	11,067	17,037	20,334	22,206
Wages & Salaries 1/	1,325	3,221	4,583	6,656	13,946	18,577	28,312	26,998	37,203
Social security	2,137	4,602	5,885	8,186	17,671	29,940	47,188	86,557	125,106
Other direct tax	116	295	838	1,132	1,852	3,882	8,276	8,081	13,025
Indirect tax	1,937	4,014	6,687	9,734	22,752	40,525	63,213	93,079	129,159
VAT	726	2,268	3,779	5,359	11,681	22,493	32,471	50,439	73,604
Customs	269	562	1,043	1,674	3,353	5,741	7,847	8,702	9,038
Excises	744	775	1,054	1,485	4,289	8,431	16,958	20,636	27,293
Other indirect tax	198	409	811	1,216	3,429	3,859	5,937	13,301	19,224
Non-tax	383	1,434	1,776	2,186	4,802	6,875	9,311	14,897	24,409
Capital 2/	48	61	62	154	584	133	297	826	387
Grants	0	0	0	0	0	0	204	325	246
Total expenditure	6,771	16,643	25,061	36,810	85,639	131,123	193,567	283,351	389,321
Current	5,786	13,757	20,840	30,783	71,859	115,394	177,835	255,275	351,794
Goods and services	2,335	5,924	9,078	12,873	26,774	42,738	68,800	100,397	139,293
Wages and salaries	1,333	3,236	4,694	6,568	12,344	18,671	26,259	43,894	58,174
Other	1,002	2,688	4,384	6,305	14,430	24,067	42,542	56,503	81,119
Interest	188	672	989	1,840	9,659	17,450	28,796	38,973	44,610
Subsidies and transfers	3,262	7,161	10,773	16,070	35,426	55,206	80,239	115,905	167,891
Subsidies	1,366	1,913	2,972	4,729	6,364	6,211	9,303	17,581	24,294
Transfers	1,895	5,248	7,801	11,341	29,062	48,995	70,936	98,324	143,597
Capital	844	2,729	3,802	5,682	12,106	13,530	15,015	24,482	36,549
Lending minus repayments	141	157	419	345	1,674	2,198	717	3,594	978
Overall balance	-71	-1,106	-2,419	-5,213	-13,253	-20,123	-19,729	-32,256	-37,580

Sources: Ministry of Finance; and Fund staff estimates.

1/ In the period 1993-99, tax revenue includes a 7 percent tax on payroll earmarked for the Health Fund.
2/ Excluding privatization receipts.

Table 20. Romania: Summary of Consolidated General Government , 1993-2001

(In percent of GDP)

	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total revenue (incl. grants)	33.4	31.2	31.4	29.0	28.6	29.7	31.9	31.4	30.5
Current	33.2	31.1	31.3	28.9	28.4	29.7	31.8	31.2	30.4
Tax	31.3	28.2	28.8	26.9	26.5	27.8	30.1	29.4	28.3
Direct tax	21.6	20.1	19.6	17.9	17.5	17.0	18.5	17.7	17.1
Profits	3.8	3.8	3.9	3.3	4.3	3.0	3.1	2.5	1.9
Wages & Salaries 1/	6.6	6.5	6.4	6.1	5.5	5.0	5.2	3.4	3.2
Social security	10.7	9.2	8.2	7.5	7.0	8.0	8.6	10.8	10.8
Other direct tax	0.6	0.6	1.2	1.0	0.7	1.0	1.5	1.0	1.1
Indirect tax	9.7	8.1	9.3	8.9	9.0	10.8	11.6	11.6	11.2
VAT	3.6	4.6	5.2	4.9	4.6	6.0	6.0	6.3	6.4
Customs	1.3	1.1	1.4	1.5	1.3	1.5	1.4	1.1	0.8
Excises	3.7	1.6	1.5	1.4	1.7	2.3	3.1	2.6	2.4
Other indirect tax	1.0	0.8	1.1	1.1	1.4	1.0	1.1	1.7	1.7
Non-tax	1.9	2.9	2.5	2.0	1.9	1.8	1.7	1.9	2.1
Capital 2/	0.2	0.1	0.1	0.1	0.2	0.0	0.1	0.1	0.0
Grants	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total expenditure	33.8	33.4	34.7	33.8	33.9	35.1	35.5	35.4	33.7
Current	28.9	27.6	28.9	28.3	28.4	30.9	32.6	31.9	30.5
Goods and services	11.7	11.9	12.6	11.8	10.6	11.4	12.6	12.5	12.1
Wages and salaries	6.7	6.5	6.5	6.0	4.9	5.0	4.8	5.5	5.0
Other	5.0	5.4	6.1	5.8	5.7	6.4	7.8	7.1	7.0
Interest	0.9	1.4	1.4	1.7	3.8	4.7	5.3	4.9	3.9
Subsidies and transfers	16.3	14.4	14.9	14.8	14.0	14.8	14.7	14.5	14.5
Subsidies and bonuses	6.8	3.8	4.1	4.3	2.5	1.7	1.7	2.2	2.1
Transfers	9.5	10.5	10.8	10.4	11.5	13.1	13.0	12.3	12.4
Capital	4.2	5.5	5.3	5.2	4.8	3.6	2.8	3.1	3.2
Lending minus repayments	0.7	0.3	0.6	0.3	0.7	0.6	0.1	0.4	0.1
Overall balance	-0.4	-2.2	-3.4	-4.8	-5.2	-5.4	-3.6	-4.0	-3.3
GDP (in billions of lei)	20,036	49,773	72,136	108,920	252,926	373,798	545,730	800,308	1,154,126

Sources: Ministry of Finance; and Fund staff estimates.

1/ In the period 1993-99, tax revenue includes a 7 percent tax on payroll earmarked for the Health Fund.

2/ Excluding privatization receipts.

Table 21. Romania: Consolidated General Government Expenditures by Function, 1993-2001

	1993	1994	1995	1996	1997	1998	1999	2000	2001
					(in billions of lei)				
Total expenditures	6,771	16,643	25,061	36,810	85,639	131,123	193,567	283,351	389,321
General public services	322	516	918	764	1,750	3,725	5,583	12,298	17,582
Defense affairs	420	1,185	1,525	2,058	5,878	8,494	8,416	13,203	17,947
Public order and safety affairs	249	785	1,108	1,609	2,858	5,484	7,616	16,067	20,466
Education affairs	637	1,545	2,471	3,878	8,262	12,147	16,365	24,985	37,054
Health affairs	545	1,529	2,075	3,030	6,417	11,046	18,926	30,948	46,318
Recreational, cultural affairs	52	179	384	586	1,341	2,121	2,680	4,598	6,083
Social security and welfare	1,814	4,495	6,730	9,682	24,178	39,314	58,800	77,894	114,181
Housing and community services	351	890	1,461	2,078	4,444	6,197	9,308	15,160	22,179
Environment	0	...	...	0	159	282	650	1,123	2,547
Industry	818	1,279	1,744	2,364	2,738	2,694	4,066	6,503	8,814
Agriculture, forestry, fishing	588	1,234	1,658	2,665	3,647	4,512	5,092	9,208	11,400
Transportation and communication	378	1,150	1,710	2,418	5,911	8,767	15,492	21,390	30,581
Other economic affairs and services	260	790	877	1,623	3,688	2,024	2,585	2,630	3,697
Research affairs	0	336	388	457	763	1,050	1,019	1,523	2,591
Other expenditures	149	58	1,023	1,758	5,024	6,493	9,850	9,308	7,270
Interest payments	188	672	989	1,840	8,582	16,773	27,120	36,514	40,612
					(in percent of GDP)				
Total expenditures	33.8	33.4	34.7	33.8	33.9	35.1	35.5	35.4	33.7
General public services	1.6	1.0	1.3	0.7	0.7	1.0	1.0	1.5	1.5
Defense affairs	2.1	2.4	2.1	1.9	2.3	2.3	1.5	1.6	1.6
Public order and safety affairs	1.2	1.6	1.5	1.5	1.1	1.5	1.4	2.0	1.8
Education affairs	3.2	3.1	3.4	3.6	3.3	3.2	3.0	3.1	3.2
Health affairs	2.7	3.1	2.9	2.8	2.5	3.0	3.5	3.9	4.0
Recreational, cultural affairs	0.3	0.4	0.5	0.5	0.5	0.6	0.5	0.6	0.5
Social security and welfare	9.1	9.0	9.3	8.9	9.6	10.5	10.8	9.7	9.9
Housing and community services	1.8	1.8	2.0	1.9	1.8	1.7	1.7	1.9	1.9
Environment	0.0	...	...	0.0	0.1	0.1	0.1	0.1	0.2
Industry	4.1	2.6	2.4	2.2	1.1	0.7	0.7	0.8	0.8
Agriculture, forestry, fishing	2.9	2.5	2.3	2.4	1.4	1.2	0.9	1.2	1.0
Transportation and communication	1.9	2.3	2.4	2.2	2.3	2.3	2.8	2.7	2.6
Other economic affairs and services	1.3	1.6	1.2	1.5	1.5	0.5	0.5	0.3	0.3
Research affairs	0.0	0.7	0.5	0.4	0.3	0.3	0.2	0.2	0.2
Other expenditures	0.7	0.1	1.4	1.6	2.0	1.7	1.8	1.2	0.6
Interest payments	0.9	1.4	1.4	1.7	3.4	4.5	5.0	4.6	3.5
GDP (billions of lei)	20,036	49,773	72,136	108,920	252,926	373,798	545,730	800,308	1,154,126

Source: Ministry of Finance and Fund staff estimates.

Table 22. Romania: NBR Refinancing Practices, 1994-2002

		Total amounts due by banks to NBR	Total Credits	Of which: Directed Lines 1/	Of which: Auction	Of which: Overdraft	Of which: Troubled Banks 2/	Litigious Debtors 3/	Directed Credit to Agriculture 4/	Shares in Total NBR Credit: Directed Lines	Shares in Total NBR Credit: Auction	Shares in Total NBR Credit: Overdraft	Shares in Total NBR Credit: Troubled Banks	Directed Credit to Agriculture
		(In billions of lei)								(In percent)				
1994	Q1	1,891	1,891	1,052	680	159	0	...	883	55.6	36.0	8.4	0.0	46.7
	Q2	2,026	2,026	1,206	820	0	0	...	893	59.5	40.5	0.0	0.0	44.0
	Q3	2,064	2,064	1,414	650	0	0	...	1,210	68.5	31.5	0.0	0.0	58.6
	Q4	2,331	2,331	1,497	800	0	34	...	1,699	64.2	34.3	0.0	1.5	72.9
1995	Q1	2,074	2,074	1,284	790	0	0	...	1,468	61.9	38.1	0.0	0.0	70.8
	Q2	2,145	2,145	1,119	825	186	14	...	1,136	52.2	38.5	8.7	0.7	53.0
	Q3	2,790	2,790	1,341	1,050	398	0	...	1,635	48.1	37.6	14.3	0.0	58.6
	Q4	3,679	3,679	1,505	1,010	288	875	...	2,180	40.9	27.5	7.8	23.8	59.3
1996	Q1	3,707	3,707	1,342	950	73	1,342	...	2,072	36.2	25.6	2.0	36.2	55.9
	Q2	4,413	4,413	1,938	485	256	1,734	...	1,918	43.9	11.0	5.8	39.3	43.5
	Q3	5,030	3,163	2,783	380	0	0	1,867	2,041	88.0	12.0	0.0	0.0	64.5
	Q4	8,024	6,153	3,838	2,315	0	0	1,871	3,159	62.4	37.6	0.0	0.0	51.3
1997	Q1	5,439	3,554	3,254	300	1	0	1,885	2,355	91.5	8.4	0.0	0.0	66.2
	Q2	3,801	1,917	1,917	0	0	0	1,885	1,640	100.0	0.0	0.0	0.0	85.5
	Q3	2,720	836	836	0	0	0	1,885	765	100.0	0.0	0.0	0.0	91.6
	Q4	2,516	632	632	0	0	0	1,885	580	100.0	0.0	0.0	0.0	91.8
1998	Q1	2,471	586	586	0	0	0	1,885	534	100.0	0.0	0.0	0.0	91.1
	Q2	2,441	556	556	0	0	0	1,885	504	100.0	0.0	0.0	0.0	90.6
	Q3	2,452	556	556	0	0	0	1,896	504	100.0	0.0	0.0	0.0	90.6
	Q4	2,470	556	556	0	0	0	1,914	504	100.0	0.0	0.0	0.0	90.6
1999	Q1	7,187	5,237	555	0	0	4,682	1,950	503	10.6	0.0	0.0	89.4	9.6
	Q2	7,628	5,678	555	0	0	5,123	1,950	503	9.8	0.0	0.0	90.2	8.9
	Q3	2,466	516	516	0	0	0	1,950	503	100.0	0.0	0.0	0.0	97.5
	Q4	4,250	2,433	503	0	0	1,930	1,817	503	20.7	0.0	0.0	79.3	20.7
2000	Q1	3,509	1,853	503	0	0	1,350	1,656	503	27.1	0.0	0.0	72.9	27.1
	Q2	5,298	3,618	3,618	0	0	0	1,680	0	100.0	0.0	0.0	0.0	0.0
	Q3	5,876	4,128	3,543	0	0	585	1,748	0	85.8	0.0	0.0	14.2	0.0
	Q4	7,907	6,159	4,947	0	0	1,212	1,749	0	80.3	0.0	0.0	19.7	0.0
2001	Q1	8,862	7,114	5,010	0	0	2,104	1,749	0	70.4	0.0	0.0	29.6	0.0
	Q2	5,269	4,985	4,985	0	0	0	284	0	100.0	0.0	0.0	0.0	0.0
	Q3	5,181	4,897	4,897	0	0	0	284	0	100.0	0.0	0.0	0.0	0.0
	Q4	4,942	4,659	4,658	0	0	0	284	0	100.0	0.0	0.0	0.0	0.0
2002	Q1	4,643	4,359	4,359	0	0	0	284	0	100.0	0.0	0.0	0.0	0.0
	Q2	4,618	4,334	4,334	0	0	0	284	0	100.0	0.0	0.0	0.0	0.0

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

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

2/ NBR special credits to banks in trouble.

3/ Refinancing credits granted and guarantees paid by the NBR in the name of Dacia Felix and Credit Bank.

4/ Including all NBR credits to Banca Agricola.

Table 23. Romania: Balance Sheet of the National Bank of Romania, 1994-2002

(In billions of lei, end of period)

	1994	1995	1996	1997	1998	1999	2000		2001		2002
					December	December	June	December	June	December	June
Assets	9,291	12,760	15,969	36,165	41,927	69,729	82,818	99,616	136,237	143,375	177,251
Foreign assets	2,742	2,839	5,647	26,508	25,207	45,455	58,001	87,872	127,482	153,617	197,689
Gold	1,704	2,011	3,429	8,998	10,155	17,629	17,801	23,849	23,870	29,661	29,679
Convertible FX	1,037	828	2,198	17,510	15,052	27,826	40,200	64,023	103,613	123,955	168,010
Other	...	...	...	0	0	0	0	0	0	0	0
Claims on government	1,906	3,520	0	3,271	9,142	21,412	20,039	16,176	14,540	8,415	7,033
State budget	1,771	3,299	...	...	...	...	...	...	...	...	...
Treasury bills	...	...	...	843	3,898	0	33	0	0	1,657	0
T-bills in foreign currency	...	...	...	0	0	4,573	2,029	0	0	0	0
Other claims on central government	135	221	0	2,428	5,244	16,839	17,977	16,176	14,540	6,758	7,033
Claims on DMBs	2,334	4,515	8,822	5,251	5,532	4,383	2,935	4,045	2,890	1,432	1,145
Refinancing credits	2,331	3,678	8,024	2,516	2,470	4,383	2,935	4,045	2,890	1,432	1,145
Memo: litigious debtors	...	...	...	1,885	1,914	1,950	1,680	1,749	1,749	284	284
FX deposits with DMBs	3	836	798	2,735	3,062	0	0	0	0	0	0
Other assets (net)	2,311	2,722	1,500	1,134	2,046	-1,521	1,843	-8,477	-8,675	-20,089	-28,616
Liabilities	9,291	12,760	15,969	36,165	41,927	69,729	82,818	99,616	136,237	143,375	177,251
Reserve money	3,245	4,691	7,877	10,587	19,090	35,982	44,177	51,485	59,186	67,791	75,794
Currency outside NBR	2,398	3,951	5,902	9,627	12,297	18,646	22,787	28,065	31,706	39,956	42,695
DMB current accounts at NBR	848	739	1,975	960	6,793	17,336	21,389	23,420	27,481	27,836	33,100
Deposit auctions	...	...	...	6,792	2,223	2,662	404	9,715	14,847	27,859	42,984
NBR FX liabilities to DMBs	564	1,260	1,131	3,926	4,427	13,797	12,970	15,398	20,140	26,833	32,063
Foreign liabilities	2,243	2,889	7,094	13,678	15,970	14,195	16,737	19,409	21,528	16,347	15,239
Government deposits	2,163	3,800	-275	670	23	2,847	7,880	2,991	20,469	8,389	16,471
Deposits	...	...	...	0	0	0	5,383	1,976	18,133	4,075	14,119
General account of Treasury	...	...	...	670	23	2,847	2,497	1,016	2,336	4,314	2,352
Capital accounts	1,075	120	141	512	194	246	650	617	67	-3,843	-5,300
Capital and reserves	81	120	141	193	194	246	246	411	319	319	319
Profits	994	0	0	318	0	0	403	206	-252	-4,162	-5,619
Gold revaluation deposits	0	0	0	0	0	0	0	0	0	0	0

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

Table 24. Romania: Commercial Banks' Specific Provisions, 1995-2002

	1995 December	1996 December	1997 December	1998 December	1999 December	2000 June	2000 December 1/	2001 June 1/	2001 December 1/	2002 June 1/
	(In billions of lei)									
Actual provisions made by banks	1,785	2,514	7,313	16,208	10,056	9,998	2,642	3,485	2,788	2,395
Provisions needed according to NBR	2,550	4,218	10,001	21,950	9,793	10,588	2,642	3,485	2,788	2,395
Remaining gap	765	1,704	2,688	5,742	-263	590	0	0	0	0
Memorandum items:										
Non-performing loans and interest arrears, gross	7,793	11,499	21,075	39,148	21,038	34,144	3,720	4,195	3,587	3,767
of which: with guarantees or collateral	5,138	7,187	10,682	16,985	11,459	21,626	139	72	65	138
Non-performing loans and interest arrears, net	2,655	4,311	10,393	22,163	9,579	12,518	3,581	4,123	3,522	3,629
	(In percent)									
Ratio of provisions made to provisions needed	70.0	59.6	73.1	73.8	102.7	94.4	100.0	100.0	100.0	100.0
Ratio of provisions made to gross portfolio	22.9	9.4	18.2	24.2	16.9	15.4	3.7	4.0	2.6	1.8

Source: National Bank of Romania.

1/ Beginning with October 1, 2000, Regulation no. 2/2000 requires a monthly classification of loans and investments.

Table 25. Romania: Foreign Assets and Liabilities of the Banking System, 1994-2002

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

	1994	1995	1996	1997	1998	1999	2000		2001		2002
							June	Dec.	June	Dec.	June
NBR 1/											
Foreign assets	1,612	1,371	1,633	3,358	2,272	2,458	2,843	3,463	4,726	5,090	6,000
Gold	1,016	1,036	1,081	1,158	904	932	940	946	947	948	949
Convert. foreign exchange (liquid)	536	278	542	2,208	1,374	1,530	1,906	2,520	3,781	4,142	5,051
Participation in foreign banks and other	60	57	5	0	0	0	0	0	0	0	0
Nonconvertible Fx, net				-8	-6	-4	-3	-3	-2	0	0
Foreign liabilities	1,651	1,371	1,966	1,927	1,880	1,616	1,694	1,539	2,186	1,505	1,836
Use of fund resources	1,421	1,051	682	716	519	452	536	471	409	417	355
Short term	...	...	...	100	0	114	0	100	100	100	100
Medium and long term	...	...	...	1,111	1,065	294	294	294	269	0	0
Reserve Requirement in Fx	...	...	...	...	296	596	607	594	691	849	958
Other Fx Liabilities to DMB (domestic)	...	...	...	...	0	160	0	0	0	0	0
Fx Liabilities to Ministry of Finance	...	...	...	...	...	...	257	80	717	139	424
Net foreign assets (broad definition) 2/	191	320	951	2,542	1,753	1,892	2,307	2,892	4,217	4,573	5,545
Net foreign assets (program definition) 3/	191	320	951	2,542	1,457	1,136	1,700	2,298	3,526	3,724	4,588
Commercial Banks											
Foreign assets	1,545	1,310	1,618	1,674	1,574	1,250	1,363	1,546	1,367	1,605	1,330
Convertible foreign exchange	1,551	1,316	1,627	1,688	1,579	1,252	1,367	1,547	1,370	1,612	1,335
Liquid	1,494	1,245	1,552	1,610	1,493	1,161	1,270	1,453	1,280	1,519	1,238
Other	57	71	75	78	86	91	97	94	90	93	97
Nonconvertible foreign exchange, net	-6	-6	-9	-14	-5	-2	-4	-1	-3	-7	-5
Foreign liabilities	678	790	1,226	1,135	801	610	523	505	563	654	882
Short term	273	212	604	267	188	221	226	225	275	371	512
Medium and long term	405	578	622	867	613	389	297	280	288	283	370
Net foreign assets	867	520	392	539	773	640	840	1,041	804	951	448
Excluding nonconvertible and other Fx assets	816	455	326	475	692	551	747	948	717	865	356
Banking System											
Net foreign assets	1,058	840	1,343	3,081	2,526	2,532	3,147	3,933	5,021	5,524	5,993
Excluding nonconvertible and other Fx assets	1,007	775	1,277	3,017	2,445	2,443	3,054	3,840	4,934	5,438	5,901

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

1/ Gold is valued at US$280.4 per ounce. All foreign currencies other than the U.S. dollar are converted in dollars at their end-1999 exchange rates, which are US$1.00415 for the euro and US$1.355109 for the SDR.

2/ Treats only liabilities to nonresidents as Foreign liabilities.

3/ Treats liabilities to nonresidents and foreign exchange liabilities to DMBs as foreign liabilities.

Table 26. Romania: Stock Market Indicators, 1995-2002
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 turnove
1995	5	9	100	75.800	192,875	97,157
1996						
Q1	14	13	99	346.143	238,697	171,681
Q2	23	13	54	216.522	48,793	38,811
Q3	24	13	53	196.208	22,046	12,570
Q4	23	17	61	140.739	12,446	5,222
1997						
Q1	29	25	92	1,528.030	220,117	192,814
Q2	55	44	618	4,298.600	1,427,315	1,257,553
Q3	66	62	707	2,573.260	1,566,343	778,047
Q4	57	75	632	2,749.950	1,116,893	559,456
1998						
Q1	62	92	785	2,548.190	1,235,012	813,501
Q2	63	104	652	2,464.760	1,095,174	542,752
Q3	66	113	330	1,602.610	432,955	277,733
Q4	64	126	357	1,366.520	305,684	172,849
1999						
Q1	63	126	275	1,434.430	394,163	555,813
Q2	64	127	300	992.875	178,935	150,626
Q3	66	126	434	985.591	193,458	166,917
Q4	60	126	317	3,084.250	314,997	427,274
2000						
Q1	63	127	345	2,987.870	356,927	253,960
Q2	64	125	379	2,126.060	593,210	2,522,690
Q3	65	123	437	1,523.690	195,957	178,343
Q4	59	114	427	1,246.530	240,245	326,290
2001						
Q1	63	113	610	1,271.940	566,624	1,583,459
Q2	62	106	762	1,031.340	633,407	1,672,706
Q3	65	70	1,232	1,644.140	500,177	1,607,656
Q4	57	65	1,228	1,872.460	430,660	659,229
2002						
Q1	62	65	1,294	1,703.500	368,186	223,895
Q2	61	65	1,851	2,825.520	723,518	389,259
Q3	66	65	2,980	2,946.940	902,249	707,442
Q4						

Source: Bucharest Stock Exchange.

Table 27. Romania: Monetary Survey, 1994-2002

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

	1994	1995	1996	1997	1998	1999	2000				2001				2002		
							QI	QII	QIII	QIV	QI	QII	QIII	QIV	QI	QII	QIII
Net foreign assets 1/ 6/	1,373	1,173	-48	16,280	15,211	39,303	43,600	59,008	81,684	92,022	108,004	136,087	155,922	171,866	178,368	197,564	209,139
(millions of U.S. dollars)	777	455	-12	2,029	1,389	2,153	2,238	2,763	3,380	3,549	3,918	4,667	5,118	5,439	5,424	5,901	6,327
Of which. Commercial banks	816	455	326	590	689	551	541	747	1,190	948	890	717	1,039	865	639	356	280
Net domestic assets 2/	9,276	17,105	30,383	45,865	77,318	94,811	92,505	89,502	81,586	93,038	83,547	72,411	79,223	98,647	96,958	103,347	108,193
Total credit	9,183	17,399	31,450	46,488	79,920	101,340	105,710	107,529	109,886	112,886	116,885	115,204	129,349	143,244	155,234	164,421	170,243
Credit to government, net	-301	964	4,609	10,607	20,833	43,621	43,154	40,323	36,723	37,878	32,458	22,319	26,119	24,990	24,997	17,154	13,241
Of which. Bank rehabilitation bonds				8,015	8,171	31,415	27,841	26,426	23,069	27,342	27,036	27,372	23,506	16,310	16,632	16,392	9,543
Net credit to non-government	9,485	16,435	26,841	35,881	59,087	57,719	62,556	67,206	73,163	75,007	84,428	92,885	103,230	118,254	130,237	147,267	157,003
Of which: Foreign currency credit	2,050	4,860	9,898	19,649	34,814	33,275	36,590	40,647	43,051	44,596	51,029	55,649	61,332	70,721	78,627	94,486	98,923
(percent of total)	22	30	37	55	59	58	58	60	59	59	60	60	59	60	60	64	63
(millions of U.S. dollars)	1,160	1,885	2,453	2,451	3,179	1,823	1,878	1,903	1,781	1,720	1,851	1,908	2,013	2,238	2,391	2,822	2,993
Other items, net	92	-294	-1,067	-623	-2,602	-6,529	-13,205	-18,027	-28,301	-19,847	-33,338	-42,793	-50,126	-44,597	-58,276	-61,074	-62,050
Broad Money	10,649	18,278	30,334	62,145	92,529	134,114	136,105	148,510	163,270	185,060	191,551	208,498	235,145	270,513	275,326	300,912	317,332
Currency outside banks	2,201	3,761	5,383	9,200	11,525	17,372	16,070	21,461	22,765	25,742	23,774	29,645	32,645	35,636	33,416	39,615	42,334
Deposits	8,448	14,518	24,952	52,945	81,004	116,742	120,035	127,049	140,505	159,318	167,777	178,852	202,500	234,877	241,910	261,297	274,998
Of which: Leu deposits	6,090	10,386	17,866	35,265	50,803	66,269	68,815	69,379	72,289	84,462	84,518	88,921	95,703	119,093	124,330	136,733	147,124
Sight	2,693	3,819	6,580	11,131	11,988	13,654	11,188	12,258	14,369	22,181	16,962	18,245	20,464	30,895	25,723	27,576	32,110
Time	3,397	6,567	11,286	24,134	38,815	52,615	57,627	57,120	57,919	62,281	67,556	70,676	75,238	88,198	98,607	109,157	115,014
Foreign currency deposits	2,358	4,132	7,086	17,680	30,201	50,473	51,220	57,670	68,216	74,856	83,259	89,931	106,797	115,784	117,580	124,564	127,874
(millions of U.S. dollars)	1,335	1,603	1,756	2,204	2,758	2,765	2,629	2,700	2,822	2,887	3,020	3,084	3,506	3,664	3,575	3,721	3,869
NBR balance sheet																	
Reserve money	3,245	4,691	7,877	10,587	19,090	35,982	36,353	44,177	46,322	51,485	50,879	59,186	61,338	67,791	66,397	75,794	75,017
Currency outside NBR	2,398	3,951	5,902	9,627	12,297	18,646	17,222	22,787	24,164	28,065	25,562	31,706	34,873	39,956	36,166	42,695	46,411
Bank lei deposits at NBR	848	739	1,975	960	6,793	17,336	19,131	21,389	22,159	23,420	25,318	27,481	26,465	27,836	30,231	33,100	28,606
Net foreign assets (program definition) 3/	-69	-425	-1,695	9,259	4,424	15,444	18,432	30,089	37,750	52,046	64,532	95,030	100,874	117,670	129,014	153,587	164,102
(millions of U.S. dollars)	-39	-165	-420	1,154	404	846	946	1,409	1,562	2,008	2,341	3,259	3,311	3,724	3,923	4,588	4,965
Net domestic assets	3,314	5,116	9,572	1,328	14,666	20,538	17,921	14,088	8,573	-561	-13,653	-35,843	-39,536	-49,878	-62,618	-77,792	-89,085
NBR refinancing 4/	2,331	3,578	8,024	2,517	2,451	4,383	3,776	5,334	5,876	7,908	8,863	6,734	5,181	4,946	4,643	4,618	3,751
Memorandum items:																	
CPI inflation (12-month rate)	0.0	27.8	56.9	151.4	40.6	54.8	49.0	40.9	44.9	40.7	40.3	35.7	31.2	30.3	25.1	24.0	19.8
Exchange rate (Lei per US$, eop)	1,767	2,578	4,035	8,023	10,951	18,255	19,480	21,358	24,169	25,926	27,566	29,160	30,465	31,597	32,887	33,477	33,055
Real annual broad money growth	47.2	34.4	5.8	-18.5	5.9	-6.4	-9.3	1.9	-1.3	-1.9	0.3	3.5	9.7	12.2	14.9	16.4	12.7
Real annual credit growth 5/	33.2	48.3	15.2	-41.2	20.5	-7.6	-5.7	-3.1	-2.0	9.9	12.0	16.8	23.5	25.6	28.1	31.1	34.2
Velocity:																	
Velocity of broad money	5.54	4.54	4.62	5.13	4.49	4.65	5.22	5.25	5.21	4.98	5.61	5.47	5.12	4.78	5.15	4.95	4.79
Velocity of broad lei money	7.11	5.87	6.03	7.17	6.66	7.47	8.37	8.58	8.95	8.36	9.92	9.61	9.37	8.36	8.99	8.45	8.02
Ratio of foreign currency deposits to broad money	22.1	22.6	23.4	28.4	32.6	37.6	37.6	38.8	41.8	40.4	43.5	43.1	45.4	42.8	42.7	41.4	40.3

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

1/ Only liquid convertible foreign assets and gold are included.
2/ Equal to broad money minus net foreign assets.
3/ Includes liabilities to DMBs in foreign exchange.
4/ Includes credit to the Deposit Guarantee Fund.
5/ Weighted average of real lei credit and U.S. dollar foreign-currency credit (at constant euro/dollar exchange rate). Adjusted for write-offs.
6/ Gold is valued at US$280.4 per ounce. All foreign currencies other than the U.S. dollar are converted in dollars at their end-1999 exchange rates, which are US$1.00415 per euro and US$1.355109 per SDR.

Table 28. Romania: Balance of Payments, 1993-2001 1/

(In millions of U.S. dollars)

	1993	1994	1995	1996	1997	1998	1999	2000	2001
Current account	-1,239	-516	-1,867	-2,611	-2,159	-2,976	-1,475	-1,435	-2,385
Trade account	-1,130	-483	-1,605	-2,494	-1,980	-2,625	-1,257	-1,684	-2,969
Exports	4,882	6,067	7,882	8,061	8,431	8,302	8,487	10,366	11,385
Imports	-6,012	-6,550	-9,487	-10,555	-10,411	-10,927	-9,744	-12,050	-14,354
Services account	-323	-328	-631	-710	-758	-1,104	-844	-611	-591
Receipts	799	1,132	1,510	1,626	1,706	1,472	1,513	2,020	2,281
Of which: Interest	56	102	59	65	186	204	52	151	189
Payments	-1,122	-1,460	-2,141	-2,336	-2,464	-2,576	-2,357	-2,631	-2,872
Of which: Interest	-204	-233	-293	-345	-419	-545	-504	-533	-583
Unrequited transfers (net)	214	295	369	593	579	753	626	860	1,175
Capital account	1,412	1,294	1,427	1,997	4,090	2,521	2,120	3,002	4,190
Direct investment and capital transfers (net) 2/	97	347	691	608	2,075	2,232	1,051	1,137	1,327
Medium- and long-term credit received (net)	957	870	877	761	965	437	320	1,630	1,596
Receipts	1,105	1,165	1,246	1,209	2,238	1,956	1,818	2,862	3,083
Multilateral	263	375	246	342	787	683	689	786	630
Bilateral	728	529	322	3	0	41	51	146	3
Other	114	261	678	864	1,451	1,232	1,078	1,930	2,450
Payments	-147	-295	369	448	1,273	1,519	1,498	1,232	1,487
Multilateral	0.0	-3	14	39	108	353	382	273	227
Bilateral	-84	-154	44	17	19	16	118	69	9
Other	-63	-138	311	392	1,146	1,150	998	890	1,250
Credit extended (net)	-11	24	67	7	35	31	34	-34	5
Bilateral clearing agreements	-128	-9	-478	-4	19	0	-4	...	...
Short-term (net) 3/	498	62	270	625	996	-179	719	269	1,262
Overall balance	173	778	-440	-614	1,931	-455	645	1,567	1,805
Financing	-173	-778	440	614	-1,931	455	-645	-1,567	-1,805
Net foreign assets NBR (increase, -)	54	-341	202	426	-1,710	542	-845	-1,094	-1,809
of which: IMF net	0	217	-315	-356	28	-126	-67	20	-50
Net foreign assets of commercial banks (increase, -)	-227	-437	238	188	-221	-87	200	-473	4

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

1/ Excludes transactions in transferable rubles.

2/ Including portfolio investment.

3/ Including errors and omissions.

Table 29. Romania: Composition of Exports, 1993-2002

(In percent of total)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002 1/
Live animal and animal products	3.3	3.6	2.1	1.9	2.4	1.1	1.4	1.2	1.1	1.0
Vegetable products	1.2	1.0	2.6	4.6	1.9	2.2	2.9	1.2	1.6	1.1
Fats and animal or vegetable edible oils	1.3	0.8	1.0	0.9	1.5	0.8	0.6	0.2	0.2	0.1
Foodstuffs, beverages, tobacco	1.0	1.1	0.9	1.3	1.2	1.1	0.7	0.7	0.9	0.7
Mineral products	11.7	11.6	9.2	8.6	7.6	6.1	5.9	7.9	6.9	8.5
Chemicals	7.0	7.9	9.1	8.5	6.6	4.0	3.9	5.0	4.4	3.5
Plastic, rubber, and articles	1.7	2.3	2.6	2.4	2.2	2.1	2.1	2.2	2.0	2.5
Wood products, cork, and wattles	3.6	3.6	3.3	3.6	4.0	4.6	5.8	5.4	4.7	4.5
Textiles and textile articles	16.0	18.8	19.8	21.4	23.0	26.0	25.9	24.2	26.2	26.1
Footwear	3.3	5.0	5.4	6.2	6.4	7.3	8.0	7.6	8.6	9.0
Articles of stone, cement, ceramics, glass, etc.	2.0	1.8	1.9	1.9	1.8	1.9	1.9	1.6	1.5	1.5
Basic metals and articles thereof	19.6	17.3	18.2	15.7	18.5	19.1	15.5	16.0	13.3	12.6
Machinery, appliances, and electrical equipment	9.0	8.4	8.3	8.3	8.7	9.5	11.4	14.0	14.8	15.1
Transport equipment	8.3	6.4	5.4	5.4	5.3	5.1	5.3	4.9	5.2	5.3
Other	11.0	10.4	10.2	9.3	8.9	9.1	8.6	7.9	8.6	8.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: National Institute of Statistics.

1/ January - August 2002.

Table 30. Romania: Direction of Trade, 1996-2002

(In percent of total)

	1996		1997		1998		1999		2000		2001		2002 Jan-Aug	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
Developed countries	62.2	61.6	64.8	62.7	72.2	66.3	72.2	68.5	70.3	64.2	74.4	65.1	75.4	66.0
Of which:														
Austria	2.1	3.1	2.1	2.7	3.0	2.9	2.9	2.9	2.4	2.5	3.0	2.8	3.0	3.4
France	5.7	4.9	5.5	5.7	5.9	6.9	6.2	6.7	7.0	6.1	8.1	6.3	7.9	6.4
Germany	18.4	17.6	16.8	16.4	19.6	17.4	17.8	17.1	15.7	14.7	15.6	15.2	16.0	14.8
Italy	17.1	15.3	19.5	15.8	22.0	17.4	23.3	19.6	22.4	18.7	24.9	19.9	26.2	21.2
Switzerland	0.5	1.7	0.5	1.3	0.6	1.1	0.7	1.2	0.6	1.2	0.5	1.1	0.5	0.8
United Kingdom	3.1	2.9	3.5	3.4	3.7	3.4	4.9	4.2	5.3	4.1	5.2	3.5	5.4	3.9
United States	2.4	3.8	3.8	4.1	3.8	4.2	3.7	3.5	3.7	3.0	3.1	3.2	3.7	3.4
Developing countries	37.8	38.4	35.2	37.3	27.8	33.7	27.8	31.5	29.7	35.8	25.6	34.9	24.8	34.0
Of which:														
Bulgaria	0.9	0.6	0.7	0.5	0.9	0.4	1.6	0.5	2.8	0.7	1.8	1.0	1.1	0.9
China	1.1	1.0	0.5	1.1	0.3	1.5	0.4	1.4	0.8	1.3	0.8	1.6	1.1	1.9
Czech and Slovak Republics	0.5	1.2	0.5	1.5	0.4	2.5	0.3	2.5	0.4	2.4	0.6	2.7	0.5	2.8
Hungary	2.1	2.5	2.2	3.1	2.6	4.6	3.2	4.0	3.4	3.9	3.3	3.9	3.0	3.6
Poland	0.5	0.7	1.2	0.8	1.0	1.2	1.4	1.5	1.0	1.5	0.9	1.8	0.7	1.8
Russia	2.0	12.5	3.0	12.0	1.0	9.0	0.6	6.8	0.9	8.6	0.7	7.6	0.3	6.5
Ukraine	0.8	1.6	1.1	1.2	0.6	1.4	0.7	1.0	0.9	1.5	0.4	2.1	0.3	2.0
Moldova	1.2	0.7	1.5	0.6	1.6	0.5	1.2	0.4	1.4	0.3	1.0	0.3	0.8	0.2
Serbia	1.7	0.3	1.7	0.5	1.4	0.5	1.0	0.5	1.3	0.5	1.4	0.2	1.0	0.2
FYR Macedonia	0.1	0.1	0.1	0.1	0.1	1/	0.1	1/	0.1	1/	0.1	1/	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

Source: National Institute of Statistics.

1/ Under 0.1 percent.

Table 31. Romania: Composition of Imports, 1993-2002

(In percent of total)

	1993	1994	1995	1996	1997	1998	1999	1998 1/	2000	2001	2002 1/
Live animals and animal products	1.0	1.4	1.3	0.6	0.6	1.8	1.2	1.6	1.1	1.8	1.6
Vegetable products, cereals	7.3	2.0	1.5	1.5	1.5	1.9	2.1	2.3	2.1	2.2	1.6
Foodstuffs, beverages, and tobacco	6.1	5.5	5.7	5.3	3.8	4.4	3.9	4	3.6	3.6	2.9
Mineral products	28.7	26.8	24.2	23.5	21.3	14.3	11.9	17.8	14.5	14.4	12.4
Chemicals	7.8	7.9	9.0	8.6	8.3	8.7	9.2	9.0	8.3	7.8	8.5
Plastic, rubber, and articles	3.1	3.2	3.8	3.9	3.9	4.3	4.5	4.4	4.5	4.9	5.5
Crude hides and skins, leather, furs, etc.	1.7	2.1	2.1	2.3	2.5	2.6	2.9	2.4	2.8	3.3	3.6
Textiles and textile articles	10.1	11.4	11.8	11.7	13.9	15.4	18.4	13.8	16.3	16.1	17.0
Footwear	0.7	0.9	1.0	1.1	1.4	1.7	1.8	1.7	1.7	1.6	1.7
Basic metals and articles thereof	4.3	4.9	5.3	6.2	5.9	6.7	6.6	6.2	6.8	7.3	7.3
Machinery, appliances, and electrical equipment	17.6	20.4	20.6	21.9	23.0	23.0	23.5	22.1	24.6	22.7	22.7
Transport equipment	4.3	4.7	3.9	3.6	3.4	4.1	4.0	3.3	4.2	5.1	5.6
Other	7.3	8.8	9.8	9.8	10.5	11.1	10.0	11.6	9.5	9.2	9.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: National Institute of Statistics.

1/ January - July 2002.

Table 32. Romania: Foreign Exchange Market Transactions, 1996-2002

(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
	July	1,731.6	82.5	1060.0
	August	1,975.3	85.9	1197.1
	September	2,472.3	117.7	1678.9
	October	2,055.9	93.5	1264.5
	November	1,878.9	85.4	1100.0
	December	1,733.1	96.3	894.8
2001	January	1,605.8	76.5	916.0
	February	1,466.1	73.3	813.1
	March	1,922.3	87.4	1193.1
	April	1,894.2	94.7	1160.0
	May	2,014.7	91.6	1196.1
	June	1,817.5	86.6	1067.7
	July	2,503.7	113.8	1608.8
	August	2,278.5	99.1	1412.8
	September	1,868.0	93.4	1033.7
	October	2,806.9	122.0	1873.7
	November	2,060.9	93.7	1208.0
	December	2,543.1	149.6	1576.9
2002	January	2,433.6	105.8	1570.4
	February	2,431.9	121.6	1688.8
	March	2,426.2	115.5	1610.5
	April	3,063.6	139.3	2072.7
	May	2,450.1	129.0	1569.7
	June	2,876.5	143.8	1977.5
	July	3,458.7	150.4	2314.2
	August	3,487.1	158.5	2471.7

Source: National Bank of Romania.

Table 33. Romania: Exchange Rate Against the U.S. Dollar, 1990-2002

		(Lei per U.S. dollar) End of Period	Period Average
1990		34.7	22.43
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
	II	7,032.0	7,103.84
	III	7,613.0	7,379.44
	IV	8,023.0	7,823.50
1998	I	8,490.0	8,243.80
	II	8,670.0	8,475.40
	III	9,162.0	8,840.62
	IV	10,951.0	9,939.39
1999	I	14,925.0	12,559.37
	II	15,840.0	15,262.31
	III	16,488.0	16,127.12
	IV	18,255.0	17,382.91
2000	I	19,480.0	18,753.78
	II	21,358.0	20,394.11
1997	December	8,023.0	7,960.25
2000	January	18,465.0	18,352.55
	February	18,892.0	18,701.71
	March	19,480.0	19,207.09
	April	20,076.0	19,758.50
	May	20,697.0	20,393.18
	June	21,358.0	21,030.64
	July	21,890.0	21,601.38
	August	22,973.0	22,421.61
	September	24,169.0	23,601.71
	October	24,850.0	24,537.86
	November	25,364.0	25,102.77
	December	25,926.0	25,603.83
2001	January	26,513.0	26,243.05
	February	27,059.0	26,815.30
	March	27,566.0	27,299.05
	April	28,214.0	27,878.25
	May	28,754.0	28,493.36
	June	29,160.0	28,952.48
	July	29,623.0	29,364.32
	August	30,044.0	29,808.96
	September	30,465.0	30,235.90
	October	31,015.0	30,785.57
	November	31,532.0	31,298.50
	December	31,597.0	31,555.65
2002	January	32,184.0	32,052.04
	February	32,599.0	32,233.30
	March	32,887.0	32,765.71
	April	33,445.0	33,101.59
	May	33,533.0	33,490.95
	June	33,477.0	33,392.25
	July	32,888.0	32,979.04
	August	33,215.0	33,093.77
	September	33,055.0	33,116.14
	October	33,524.0	33,242.22
	November	33,569.0	33,544.67

Source: Data provided by the Romanian authorities.

Table 34. Romania: Stock of Direct Foreign Investment 1997-2001
(Cumulative from 1990)

Country (Financial Organization)	Foreign Capital 1/ 1997	1998	1999	2000 2/	2001 2/	Number of Foreign Investors 1997	1998	1999	2000 2/	2001 2/
Total	2,780,018	3,648,490	4,500,283	6,045,486	7,841,964	53,203	63,255	65,817	77,334	82,424
European Union	1,540,987	2,140,476	2,696,678	3,800,997	4,566,619	20,372	23,936	27,016	27,863	31,233
Austria	110,804	174,128	236,747	316,028	532,100	1,406	1,727	1,990	1,893	2,084
Belgium	18,432	37,973	39,416	46,533	53,626	588	684	783	772	872
Denmark	5,815	6,642	7,182	7,067	9,925	135	163	193	177	189
France	214,862	273,620	305,363	489,143	666,064	1,592	1,865	2,012	2,081	2,294
Finland	720	1,813	8,777	7,568	1,186	30	35	42	43	46
Germany	338,131	376,267	536,386	651,710	751,993	6,926	7,905	8,601	8,453	9,121
Greece	67,436	85,476	131,314	181,867	231,141	1,407	1,603	1,739	1,819	1,991
Ireland	10,130	12,664	13,340	23,785	26,798	95	100	113	112	118
Italy	196,962	292,198	345,737	779,125	517,464	5,780	7,081	8,334	9,048	10,634
Luxembourg	123,304	138,063	168,290	116,338	169,409	109	127	161	138	156
Netherlands	275,286	480,324	582,517	764,038	1,122,153	806	967	1,158	1,178	1,332
Portugal	1,067	1,735	1,782	23,394	3,966	27	35	40	42	58
Spain	27,091	27,808	28,940	72,561	142,256	231	268	309	355	406
Sweden	31,397	48,703	50,938	57,755	81,747	506	524	579	630	669
United Kingdom	119,550	183,062	239,950	264,085	256,791	734	852	962	1,122	1,263
Other countries	1,239,031	1,508,014	1,803,605	2,244,286	3,275,345	32,831	39,319	38,801	49,471	51,191
of which:										
Korea, Rep. of	234,037	234,064	234,070	248,580	260,097	46	60	72	68	75
U.S.A.	254,532	242,375	339,117	366,853	624,162	2,280	2,483	2,715	2,975	3,207
Turkey	126,268	176,885	193,162	225,527	260,574	4,427	5,343	6,117	6,689	7,280
Switzerland	89,782	72,950	101,671	173,775	200,094	671	751	821	927	1,002
Canada	48,026	51,609	56,087	58,397	68,174	521	584	635	695	664
Syria	53,079	55,875	59,218	60,506	54,849	3,550	3,942	4,237	4,604	4,830
Israel	24,094	24,986	25,447	29,623	28,155	1,369	1,512	1,651	1,735	1,887
Hungary	51,155	84,451	152,103	139,673	189,769	2,175	2,712	3,075	2,988	3,595
Cyprus	69,199	85,398	383,139	469,757	535,005	385	534	745	797	755
Lebanon	24,733	31,019	35,774	39,743	37,535	2,038	2,274	2,477	2,866	2,817
China	37,350	40,782	42,663	46,377	44,842	3,176	4,697	5,550	6,806	7,334
Iraq	24,726	28,451	30,731	40,974	45,855	2,880	3,807	4,781	5,043	5,138
Liechtenstein	17,475	17,596	36,116	39,560	39,125	110	123	135	140	134
Iran	14,858	15,444	15,866	16,609	17,315	1,688	1,902	2,075	2,270	2,289
Britain Islands	4,139	13,132	22,893	41,308	82,616	53	83	114	110	108
Bulgaria	7,878	8,052	8,844	9,261	8,735	199	236	293	351	355
Egypt	8,001	9,269	9,375	9,666	10,118	765	967	1,111	1,120	1,136
Rep. of Moldova	6,874	10,344	20,352	10,882	12,537	594	760	964	973	1,134
Australia	10,996	10,900	11,133	16,630	15,611	282	297	325	345	314
Saudi Arabia	592	597	732	696	758	55	69	76	73	82
Panama	15,228	16,284	16,291	16,865	15,756	92	97	101	109	102
Yugoslavia	4,652	4,792	4,840	18,135	18,000	486	534	599	626	656
Poland	2,715	2,194	3,980	7,327	7,179	99	118	132	153	173

Source: Ministry of Development and Forecasting.

1/ In thousands of U.S. dollars.
2/ Cumulative from 1991

Table 35. Romania: Outstanding External Debt in Convertible Currencies, 1993-July 2002

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

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002 1/
Medium- and long-term	**3,357**	**4,543**	**5,459**	**7,209**	**8,585**	**9,323**	**8,771**	**10,273**	**11,742**	**13,115**
Official creditors	3,123	4,245	4,962	6,230	7,053	7,517	6,936	7,678	8,421	9,408
Multilateral Institutions	2,037	2,712	2,788	2,720	3,392	3,689	3,875	4,345	4,550	4,795
Of which: IMF	1,041	1,313	1,039	651	642	539	458	453	386	347
Government and government guaranteed credits 2/	1,086	1,533	2,174	3,509	3,661	3,828	3,061	3,333	3,870	4,613
Of which: China	137	89	57	36	15	16	13	23	0	0
Commercial creditors	212	298	497	979	1,532	1,806	1,835	2,595	3,321	3,707
Trade-related credits	212	290	415	485	438	307	204	125	80	74
Commercial banks	0.0	0	0	0	74	64	30	0	0	0
Non-guaranteed suppliers' credits	0.0	8	82	494	1,020	1,435	1,601	2,470	3,241	3,633
Ex-CMEA banks	22	0.0	0.0	0	0	0	0	0	0	0
Short-term	**892**	**966**	**1,000**	**1,136**	**918**	**576**	**385**	**376**	**411**	**426**
Of which:										
Documents in transit	85	62	172	475	471	232	160	148	160	173
Letters of credit	431	504	546	410	258	151	128	161	148	158
Total	**4,249**	**5,509**	**6,459**	**8,345**	**9,503**	**9,899**	**9,156**	**10,649**	**12,153**	**13,541**

Source: Romanian authorities. The figures do not include the disputed obligations to Sweden dated 1928.

1/ July 2002.

2/ Includes guaranteed supplier credits, guaranteed credits from private banks, bonds issued in 1996 and 1997 and syndicated loans.

Table 36. Romania: Currency Composition of Medium- and Long-Term External Debt, 1993-July 2002

(In percent; end of period)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
U.S. dollars	31.4	39.3	42.5	47.5	52.1	52.7	58.3	57.2	53.6	49.6
Swiss francs	4.0	1.8	1.6	0.9	1.1	1.7	2.1	2.1	1.4	1.2
Deutsche marks	4.8	4.8	11.1	11.9	14.4	16.1	15.2	12.2	9.4	...
SDRs	31.0	28.6	19.0	9.0	7.5	5.8	5.2	4.4	3.3	2.7
Pounds sterling	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.2
French francs	3.5	4.4	4.5	3.9	3.8	4.1	3.7	2.4	1.7	...
ECU/euro	16.1	14.4	14.7	11.3	9.3	7.7	6.8	14.3	26.1	44.8
Other currencies	9.1	6.7	6.6	15.4	11.7	11.8	8.5	7.2	4.3	1.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Data provided by the Romanian authorities.

1/ July 2002.

Table 37. Romania: Summary of Export Restrictions, 1994-2002 1/

(Products subject to export quotas)

1994	1995	1996	1997	2001	2002
II. Grains and Technical Crops Double and crossed maize hybrids (1 pos.) (1,000 tons) Triple crossed hybrids (1 pos.) (2,120 tons) Simple hybrids (1 pos.) (5,995 tons) Sunflower seeds for sowing (1 pos.) (230 tons) Raw sunflower oil (1 pos.) (15,000 tons) VI. Non-Ferrous Minerals, Fuels Copper-based alloys (3 pos.) (12,500 tons) Lead-based alloys (1 pos.) (1,000 tons) VIII. Wood and Wood Products Different kinds of timber (9 pos.) Not-processed or semi-processed wood products (7 pos.)	II Grains and Technical Crops Wheat for seeds and common wheat (2 pos.) (500,500 tons initially, but changed) Maize and maize hybrids (6 pos.) (total 1,008,830 tons) Sunflower for seeds (1 pos.) (382 tons) Raw sunflower oil (1 pos.) (10,000 tons) IV. Other Agriculture Raw sheep skins and hides (4 pos.) (315,000 pcs.) Cattle hides (2 pos.) (200.000 sq. m.) Sheep skins without hair (7 pos.) (185,000 pcs.) VI. Non-Ferrous Minerals, Fuels Copper and copper-based alloys (3 pos.) (10,100 tons) Aluminum-based alloys (1 pos.) (10,000 tons) Refined lead (1 pos.) (4,000 tons) Zinc (1 pos.) (5,000 tons) VIII. Wood and Wood Products Coniferous timber (7 pos.) Beech tree timber and other timber (7 pos.) Semi-processed and different wood products (excl. furniture) (10 pos.)	II. Grains and Technical Crops Wheat for seeds and common wheat (2 pos.) (1,510,000 tons) Maize and maize hybrids (6 pos.) (1,024,000 tons) Sunflower seeds (1 pos.) (2,000 tons) Raw sunflower oil (1 pos.) (75,000 tons) IV. Other Agriculture Raw sheep skins and hides ((4 pos.) (320,000 pcs.) Raw cattle hides (2 pos.) (300,000 sq. m.) Sheep skins without hair (7 pos.) (250,000 pcs.) Raw wool (2 pos.) (4,000 tons in sem. II only) VI. Non Ferrous Minerals, Fuels Products made of copper alloys (1 pos.) (100 tons) Aluminum-based alloys (1 pos.) (10,000 tons) Refined lead (1 pos.) (4,000 tons) Zinc (1 pos.) (8,000 tons) VIII. Wood and Wood Products Coniferous timber (8 pos.) Beech tree timber and other timber (6 pos.) Semi-processed and different wood products (excl. furniture) (9 pos.)	II. Grains and Technical Crops Wheat and maize hybrid (6 pos) Barley (1 pos) Flour (2 pos) Sunflower seeds for crops (1 pos) Raw sunflower oil (1 pos) Bread (1 pos) Wheat's extraction (1 pos) Soya beans' extraction (1 pos) Sunflower's extraction (1 pos) IV. Other Agriculture Snails, other than sea snails (1 pos) Raw cattle and horse skins and hides (7 pos) - (2.500 tons) Raw sheep skins and hides 4 (pos - (1.530 tons) Other raw skins and hides (1 pos) (700 tons) Other cattle skins (2 pos), (2.735 tons) Sheep skins without hair (2 pos) (564 tons) Raw wool (2 pos); (4,000 tons) V. Ferrous metals Iron and steel trash (3 pos) (250.000 tons) VI. Non-ferrous minerals, metals, fuels Copper trash (1 pos) - 3,000 tons) Copper and copper based alloys, copper products (3 pos): (4,200 tons) Aluminum based alloys (2 pos) (10,000 tons) Lead, lead alloys (2 pos); (6000 tons) Zinc (1 pos); (10,000 tons) VIII Wood and wood products Coniferous timber (9 pos); (972,000 m3) Beech tree timber and other timber (9 pos); (310,000 m3) Wood products: 1 pos = 1,000 m2 1 pos = 10,000 m3 1 pos = 2,000 m3	II Sunflower seeds for a three months period starting with September 25, 2001 VIII. Not-processed or semi-processed wood products sold on the domestic market exclusively, during March 15 - December 31,2001. Export licenses issued by March 15, 2001 remained valid until expiring date. (Government Decisions 295/2001 and 444/2001)	VII. Not-processed or semi-processed wood products sold on the domestic market exclusively, during January 1 - April 30. 2002. (Government Decision 1052/2001)

Source: Foreign Trade Department.

1/ There were no restrictions in 1998, 1999, and 2000.

Table 38. Romania: Energy Prices, 1993-2002 1/

(In domestic currency)

	Units	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	2000	2001	Jan.-Aug. 2002 5/
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/liter																	
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	3,462	5,585	8,917
Diesel fuel	lei/liter																	
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	3,226	5,323	8,186
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	3,848,636	5,738,949	5,641,036
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	2,687,605	3,369,683	3,935,300
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	3,293,931	5,191,144	5,456,712
Natural gas	lei/1,000 m3																	
Enterprises and population		11,437	14,883	38,799	45,366	50,886	50,886	50,886	50,886	81,232	81,639	394,875	471,250	515,475	801,835	1,002,294	1,320,427	1,624,972
Enterprises		...	...	...	...	...	...	...	...	...	...	608,333	712,500	714,700	854,713	991,553	1,193,805	1,375,191
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	35,839	35,992	88,773	106,751	107,098	170,653	232,147	300,333	378,877
Electricity 4/	lei/kwh																	
Households		6	19 3/	28	36	40	40	45	46	73	73	161	187	321	...	...	...	...
Enterprises		...	...	52	67	78	78	84	88	137	140	365	436	430	553	746	1,033	1,456
Enterprises and population		17	22	48	62	71	72	78	81	127	127	325	385	400	568	792	1,091	1,530

Source: National Institute of Statistics.

1/ Delivery prices, including VAT from July 1, 1993 (for households).
2/ 12.5 kg. bottles, delivered for households.
3/ Exempted from VAT.
4/ Explicit subsidies for households were eliminated from May 1, 1993.
5/ Provisional data.
Note: Delivery prices for enterprises exclude VAT.

Table 39. Romania: Energy Bill, 1996-2002

	Natural Gas (Tera Jouli)		Electric Power (thousand kw hours)		Mineral Fuel (thousand tons)		Crude Petroleum (thousand tons)		Petroleum Products (thousand tons)		TOTAL US$ thousands
	Quantity	Value 1/	Quantity	Value 1/	Quantity	Value 1/	Quantity	Value 1/	Quantity	Value 1/	
1999 Exports f.o.b.	...	...	2237	72578	291	21193	...	...	1957	320489	414260
Q1	...	...	832	26896	111	5985	...	...	504	50225	83106
Q2	...	...	449	14590	37	2572	...	...	394	56893	74055
Q3	...	...	526	17091	69	4958	...	...	517	98848	120897
Q4	...	...	430	14001	74	7678	...	...	542	114523	136202
1999 Imports c.i.f.	121712	198588	1412	46075	2730	161522	4294	478192	1513	166842	1051219
Q1	33691	52848	288	9502	613	34973	1201	89907	332	30418	217648
Q2	20488	30563	621	20214	631	40374	535	50948	228	25205	167304
Q3	17490	26799	309	10053	804	46048	1090	118214	454	42830	243944
Q4	50043	88378	194	6306	682	40127	1468	219123	499	68389	422323
2000 Exports f.o.b	...	...	1,530	46,717	245	36,539	...	...	2,520	659,570	742,826
Q1	...	...	524	16,363	68	10,094	...	...	645	157,472	183,930
Q2	...	...	88	2,629	70	6,361	...	...	527	134,722	143,712
Q3	...	...	346	9,653	64	9,283	...	...	689	188,412	207,348
Q4	...	...	572	18,072	43	10,801	...	...	659	178,963	207,837
2000 Imports c.i.f.	122,508	326,201	836	25,066	3,205	525,591	4,642	822,527	1,215	210,085	1,583,270
Q1	48,715	103,266	196	5,884	827	152,440	1,086	179,711	543	80,185	418,220
Q2	19,084	46,594	155	4,639	791	95,456	1,174	199,332	342	56,779	356,206
Q3	14,721	43,474	296	8,873	739	93,144	1,276	232,034	186	39,006	373,055
Q4	39,988	132,867	189	5,671	848	184,551	1,106	211,451	145	34,116	435,789
2001 Exports f.o.b.	...	...	2,077	62,316	225	36,466	...	...	2,852	608,337	707,119
Q1	...	...	738	22,152	38	8,640	...	...	638	141,650	172,442
Q2	...	...	120	3,587	60	9,690	...	...	962	218,738	232,014
Q3	...	...	420	12,603	66	9,217	...	...	876	185,541	207,362
Q4	...	...	799	23,973	61	8,919	...	...	376	62,408	95,300
2001 Imports c.i.f.	108,882	351,314	767	23,000	5,903	636,146	5,544	954,170	2,372	357,133	1,970,450
Q1	42,705	146,732	159	4,759	2,339	250,392	1,120	200,077	927	143,348	598,578
Q2	21,921	74,662	201	6,041	1,229	131,911	1,700	312,268	684	95,820	546,040
Q3	12,392	39,248	354	10,628	967	97,741	1,129	202,669	169	34,967	346,004
Q4	31,864	90,672	53	1,572	1,368	156,102	1,595	239,156	592	82,998	479,828
Jan-Jun 2002 Exports f.o.t	...	...	1521	47409	99	16098	...	...	2049	405014	468521
Q1	...	...	1005	31912	46	7084	...	...	930	164093	203089
Q2	...	...	516	15496	53	9014	...	...	1119	240921	265432
Q3	...	...	...	...	...	...	...	...	...	...	...
Q4	...	...	...	...	...	...	...	...	...	...	...
Jan-Jun 2002 Imports c.i.f.	65653	186594	219	6175	3376	315347	2184	369786	1217	163664	854971
Q1	48087	140198	65	1863	2097	214497	1061	164436	1004	120419	501215
Q2	17566	46396	154	4312	1279	100851	1123	205349	213	43244	353756
Q3	...	...	...	...	...	...	...	...	...	...	...
Q4	...	...	...	...	...	...	...	...	...	...	...

Source: National Institute for Statistics

1/ Thousands of U.S. dollars.

Table 40. Romania: Energy Balance, 1996-2000

	Units	1996 Actual		1997 Actual		1998 Actual		1999		2000	
		Natural units	Thousand toe 1/	Natural units	Thousand toe 1/	Natural units	Thousand toe 1/	Natural units	Thousand toe 1/	Natural units	Thousand toe 1/
Energy Sources - Total			53,941		51,261		46,204		41,804		41,786
Production			35,135		31,401		28,796		27,890		28,190
Coal 2/	thousand tons		8,065		6,600		5,149		4,576		5,593
Hydrocarbons			20,464		18,512		17,610		17,436		17,125
Natural gas	million m^3		13,764		11,908		11,195		11,192		10,968
Crude oil	thousand tons		6,700		6,604		6,415		6,244		6,157
Hydroelectric power	Gwh		1,579		2,916		3,009		1,574		1,272
Nuclear power	Gwh		139		...		...		447		470
Other			4,888		3,373		3,028		3,857		3,730
Import			18,806		19,163		15,148		10,186		10,925
Coal	thousand tons		2,773		3,429		2,495		1,730		1,917
Hydrocarbons			15,788		14,291		12,485		8,361		8,552
Natural gas	million $m.^3$		5,654		4,030		3,773		2,538		2,712
Crude oil	thousand tons		7,153		6,243		6,000		4,293		4,759
Oil products	thousand tons		2,981		4,018		2,712		1,530		1,081
Heavy fuel oil	thousand tons		...		...		...		1,238		396
Electric power	Gwh		193		89		101		95		67
Stocks at the beginning of the period	thousand tons		...		...		...		3,728		2,671
Destination - Total											
Consumption			50,365		45,505		40,983		36,567		36,374
Population			10,618		9,673		9,412		8,757		8,433
Export			...		...		...		2,317		2,947
Stocks by the end of the period			...		...		...		2,920		2,464

Source: National Institute of Statistics.

1/ Tons of oil equivalent (10,000 Kcal/kg).
2/ Without coking coal.

Table 41. Romania: Primary Supply and Consumption of Petroleum Resources, 1980-2000

	1980	1985	1989	1990	1995	1996	1997	1998	1999	2000
Oil										
Domestic production										
Crude oil	11.5	10.7	9.2	7.9	6.4	6.4	6.4	6.3	6.1	6.0
Natural gas - liquids	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2	0.2	0.3
Subtotal	11.9	11.1	9.6	8.3	6.8	6.8	6.8	6.5	6.3	6.3
Imports - crude oil	16.2	14.6	21.8	16.1	8.8	8.8	8.8	6.0	4.3	4.8
Exports - petroleum products	8.9	9.1	12.0	8.4	2.3	2.3	2.3	3.4	2.0	2.7
Net domestic consumption	19.2	16.6	19.6	16.0	13.3	13.3	13.3	12.8	8.6	8.4
Of which : Domestically produced (in percent	62.0	66.9	49.0	51.9	51.1	51.1	51.1	79.7	73.3	75.0
Net import (in percent)	38.0	33.1	50.0	48.1	48.9	48.9	48.9	20.3	26.7	25.0
Natural gas										
Domestic production										
Non-associated gas	25.5	31.9	25.3	17.5	12.8	12.8	12.8	9.1	12.7	12.7
Associated gas	7.0	7.0	7.0	5.3	5.3	5.3	5.3	5.3	1.5	1.2
Subtotal (bcm) 1/	32.5	38.9	32.8	22.8	18.1	18.1	18.1	14.4	14.2	13.9
Imports	1.6	1.8	7.0	5.8	7.3	7.3	7.3	4.7	3.2	3.4
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	17.4	17.3
Net domestic consumption (million toe)	30.5	34.1	33.2	23.8	21.2	21.2	21.2	14.8	13.9	13.8
Of which : Domestically produced (in percent	88.8	95.1	82.4	79.7	71.3	71.3	71.3	77.7	81.6	80.3
Net import (in percent)	3.8	4.4	17.6	20.3	28.7	28.7	28.7	22.3	18.4	19.7
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: National Institute of Statistics.

1/ 1 bcm of natural gas is equivalent to 0.8 million tons of oil equivalent (toe).

Table 42. Romania: Production, Domestic Consumption, Export and Import of Oil and Oil Products, 1980-2000

(In thousands of tons)

	Crude Oil		Total Refined Product			
	Domestic Production 1/	Import	Total Supply	Total Production	Export	Domestic Consumption
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	6,379	4,294	10,673	10,459	2,041	8,418
2000	6,287	4,760	11,047	10,990	2,749	8,241

Source: Data provided by the Romanian authorities.

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

Table 43. Romania: Electric Power Balance, 1995-2000

(In gigawatt hours)

	1995	1996	1997	1998	1999	2000
Total resources	60,022	63,592	58,187	54,677	51,816	52,709
Domestic production	59,267	61,350	57,148	53,496	50,713	51,935
Thermal power plants	42,573	44,209	34,239	29,310	27,225	31,701
Coal	20,594	20,471	16,862	14,485	14,684	18,927
Hydrocarbons and secondary energy resources	21,979	23,738	17,377	14,825	12,541	12,774
Hydropower plants	16,694	15,755	17,509	18,879	18,290	14,778
Nuclear plants	0	1,386	5,400	5,307	5,198	5,456
Import	755	2,242	1,038	1,181	1,103	774
Total destinations	60,022	63,592	58,187	54,677	51,816	52,709
Gross domestic consumption - total	49,475	54,974	50,504	46,235	43,499	43,046
Population 1/	7,401	8,447	8,296	8,296	7,883	7,652
Export	456	1,435	817	715	1,930	2,260

Source: National Institute of Statistics.

1/ Without public lighting.