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Bulgaria: Selected Issues and Statistical Appendix

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BULGARIA

Selected Issues and Statistical Appendix

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Approved by European I Department

March 20, 2000

This Selected Issues Paper provides background information to the staff report on the 1999 Article IV consultation discussions with Bulgaria (EBS/00/45). The paper includes three studies covering key policy issues. Chapter I reviews Bulgaria's present competitiveness and concludes that while competitiveness is currently broadly adequate, policies promoting productivity growth as well as prudent incomes and fiscal policies are essential to maintain and enhance it. Chapter II describes the problems of Bulgaria's old pension and health systems and reviews the reforms that have been initiated in 1999–2000 to address these problems. Chapter III looks at the reasons for the low level of bank credit to the private sector in Bulgaria, drawing the conclusion that the promotion of competition in the banking sector, the enhancement of financial transparency, and improvements in the legal environment are among the key measures that should be undertaken to promote prudent credit expansion. The paper also includes a statistical appendix providing comprehensive statistical information on the various sectors of the economy.

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I. Does Bulgaria Suffer from a Competitiveness Problem? A Look at Real Exchange Rate Indicators and Export Performance[1]

A. Introduction and Summary

1. **Bulgaria's experience over the past couple of years has brought up the question of whether the country suffers from a competitiveness problem.** In response to a severe financial and macroeconomic crisis, Bulgaria had adopted a currency board in mid-1997. After an initial stabilization-induced rebound in the second half of that year, activity and exports stagnated (Figure 1). Moreover, the current account position deteriorated, from a sizable surplus in 1997 to a deficit of over 7 percent of GDP in the first half of 1999 (Tables A42 and A43). Only the second half of 1999 saw a resumption of growth and an improvement in the current account. For the full year 1999 GDP growth is estimated at 2.5 percent, with a current account deficit of 5.2 percent of GDP that was fully covered by foreign direct investment and other inflows. While a combination of adverse shocks, such as the Kosovo crisis, the restructuring of industries, and the global financial crises, certainly explain some of this mixed performance, one can also ask whether Bulgaria's underlying competitiveness was adequate during this period.

2. **This paper assesses key aspects of Bulgaria's competitiveness.** There are various ways of defining the "competitiveness" of an economy. The broadest definition relates to the sustainability of a country's current account position. In that regard, Appendix V of the recently issued staff report (EBS/00/45) suggests that under the presently projected external environment and with continued sound economic policies Bulgaria's medium-term external position is sustainable. This paper adopts a narrower focus, but one that is highly relevant for assessing Bulgaria's recent experience and near-term prospects. Specifically, this paper examines the behavior of a variety of real exchange rate indicators as well as export performance. The main conclusions of this examination are summarized in the remainder of this introductory section.

3. **The evidence from price and wage indicators does not suggest a misalignment at present**. The observed real exchange rate appreciation since mid-1997 is low compared to the experience of other transition economies at Bulgaria's stage of transition, and can to a significant extent be traced to the Balassa-Samuelson effect (faster productivity growth in the tradables sector than in the nontradables sector). Other factors that help explain the appreciation are price liberalization and increased levels of sustainable government expenditures and capital inflows. Regarding wages, measured in U.S. dollars they are among the lowest in the region and below the levels predicted by Bulgaria's GDP per capita. Moreover, productivity growth has helped unit labor costs in U.S. dollars remain broadly unchanged over the past two years. Also, Bulgaria's minimum wages appear to be at prudent levels: the ratio of minimum to average wage at one third is comparable to that in other transition countries.

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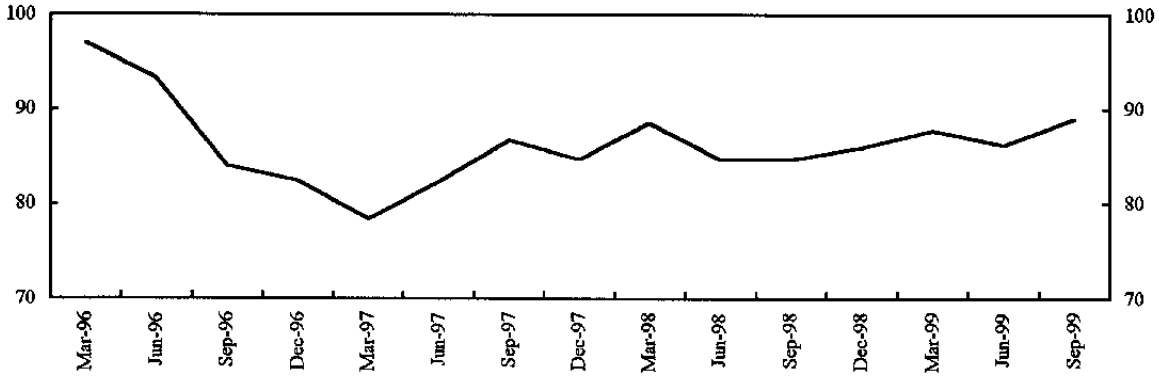
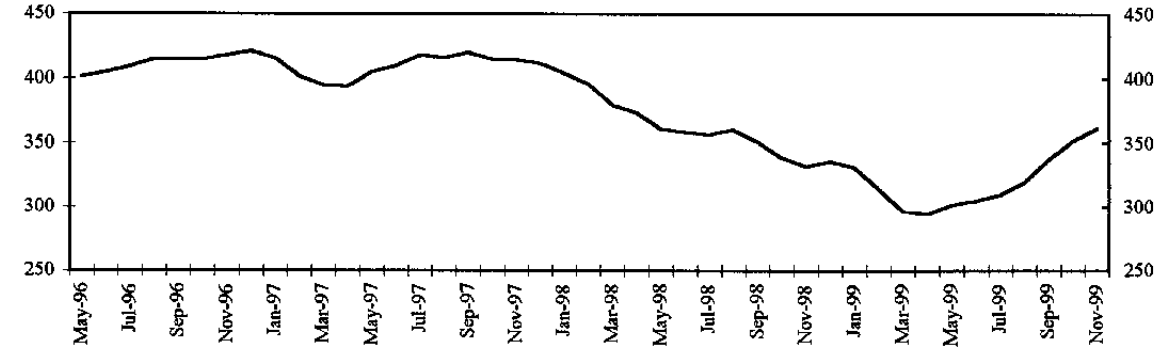
[1] Prepared by Angana Banerji and R. Gaston Gelos.

Figure 1. Bulgaria: GDP, Exports, and the Current Account

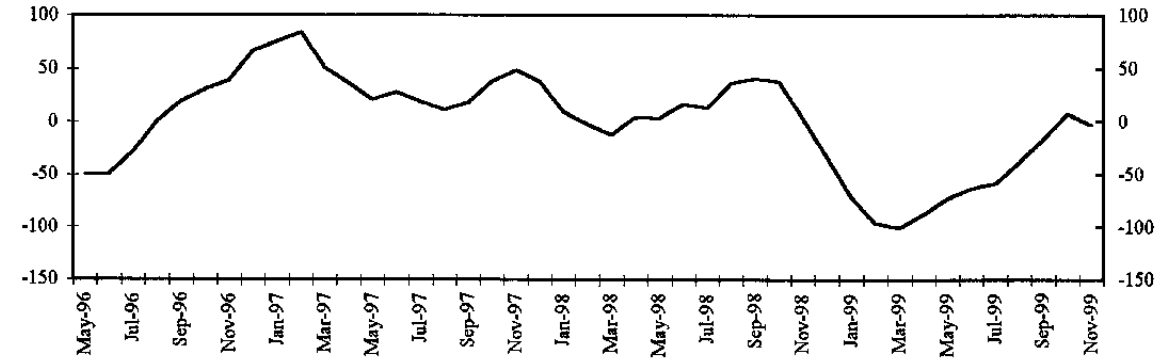
Real GDP (Seasonally adjusted, 1995=100)



Exports (3-month moving average, in millions of U.S. dollars)



Current account balance (3-month moving average, in millions of U.S. dollars)



Source: IMF staff calculations based on data from BNB and NSI.

4. **Bulgaria's modest export performance in the last decade, including the slump in 1998–99, appears to be mainly attributable to external shocks and a late start of sustained reform efforts**. An initial spurt in exports induced by the opening of the economy from 1991 stalled by the middle of the decade, largely reflecting the absence of sustained stabilization and reform efforts. Once the economy was stabilized with the introduction of the currency board in 1997 and critical reforms finally began to be undertaken in 1998–99, Bulgaria was hit by a fall in partner country demand and export prices due to the global financial crises, and by trade disturbances related to the Kosovo crisis. These external shocks coincided with disruptions caused by the long-delayed start of intensive enterprise restructuring which had a major effect on the traditional export industries. Despite the shocks, Bulgaria managed to broadly maintain its market share in the EU during this period. Moreover, in the second half of 1999 exports started to pick up.

5. **Taken together, this evidence indicates that Bulgaria's competitiveness is currently not under major threat**. The behavior of prices, wages, and exports suggests that the difficulties that Bulgaria has been experiencing were to a large extent attributable to a series of internal and external shocks, and did not reflect a fundamental competitiveness problem. This sanguine view regarding competitiveness is supported by the ongoing economic recovery and an improvement in the current account position now that the effects of the adverse shocks are tapering off.

6. **If competitiveness is currently adequate, how can it be preserved and even enhanced?** Safeguarding competitiveness is particularly important for a country with a currency board, like Bulgaria. With active monetary and exchange rate policy ruled out, there are fewer policy instruments and less margin for error than under other exchange rate regimes. Hence, it is vital for Bulgaria to persevere with the sound policies pursued over the last two years. Fiscal policy needs to remain prudent, with sufficient flexibility to react to any unforeseen developments. In the absence of hard budget constraints in the public sector, Bulgaria needs to continue with its strict incomes policy for state-owned enterprises. Labor market flexibility needs to be enhanced. The momentum concerning the restructuring of public sector enterprises needs to be maintained. To attract foreign direct investment and increase productivity, the quality of public services should be improved, red tape reduced, and existing laws enforced more stringently.

B. What Do Real Exchange Rate Indicators Tell Us about Bulgaria's Competitiveness?

Price-based real exchange rate indicators

Basic concepts

7. **Two basic concepts of the real exchange rate (RER) can be found in the literature.** The *external* real exchange rate looks at the nominal exchange rate adjusted for differences in price levels between countries.[2] This concept is rooted in the purchasing power

[2] This paragraph is partly based on Hinkle and Nsengiyumva (1999). See also De Gregorio, Giovannini and Krueger (1994). For a more detailed discussion of the relation between different competitiveness indicators, see Lipschitz and McDonald (1992) and Marsh and Tokarick (1994).

parity (PPP) theory. The external RER is also the competitiveness indicator of the well-known Mundell-Fleming open economy model, where each country produces a single good which is in imperfect competition with the goods produced by other countries. The *internal* RER focuses on the relative price of nontradables to tradables within a country as a measure of the incentives for consuming or producing tradable as opposed to nontradable goods. This latter RER definition is frequently used in the context of small developing countries whose terms of trade can be considered as given.[3] The two measures of the RER will often, but not always, move in the same direction.

8. **There are also various notions of the *equilibrium* RER.** When discussing the external RER rate, two equilibrium conditions are conceivable. The first is either relative or absolute PPP. The second is given by the RER that ensures a sustainable current account path. Related to the latter concept, the internal RER is usually discussed within a medium-term framework in which the external asset position of a country is held constant (see Montiel, 1999). The equilibrium RER is then the relative price of tradables to nontradables that insures full employment of resources with this external constraint. A disequilibrium can in principle take two forms. The RER may not be in line with its medium-term level because price adjustment is sluggish owing to some rigidities in the economy. Alternatively, macroeconomic policies or consumers' behavior may be inconsistent with a viable external position. For example, consumption levels may be unsustainably high for maintaining external balance: even though prices are fully flexible, ensuring that the RER attains a short-run equilibrium, the RER can be misaligned with respect to its long-run equilibrium level.

9. **The theory of the internal RER makes a number of precise predictions about the determinants of the equilibrium RER.** Higher productivity growth in the tradables than in the nontradables sector will result in an equilibrium appreciation of the RER (this is the so-called Balassa-Samuelson effect; see Balassa, 1964, and Samuelson, 1964). A shift in spending propensities toward nontradables will similarly yield an equilibrium appreciation; an example is a higher level of (sustainable) government spending, since fiscal expenditures are typically biased toward nontradable goods. A worsening of the terms of trade will usually require a depreciation to maintain equilibrium. Other factors that will influence the equilibrium level of the RER are the world interest rate and the country's openness to trade.[4]

10. **While the aforementioned factors may move either way, in the case of transition economies an equilibrium real *appreciation* is likely.** In these economies, the Balassa-Samuelson effect is typically substantial. Also, as pointed out by Halpern and Wyplosz (1997), there are several specific reasons to expect countries to experience equilibrium real appreciation during the transition. Increased demand for services is likely to result in an appreciated RER. Prices of utilities, previously set at unsustainably low levels, will tend to increase along the transition path and also warrant an appreciation. Higher public infrastructure spending and changes in the tax structure will similarly result in an increase in the relative price of nontradables. Larger levels of sustainable capital inflows associated with

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[3] This is often referred to as the "Australian" or "dependent economy" model, after Salter (1959) and Swan (1960).

[4] See Montiel (1999).

increased creditworthiness along the transition will result in a higher sustainable current account deficit, implying an appreciated RER.[5]

Empirical issues

11. **This paper adopts an eclectic approach to assessing whether Bulgaria's RER is misaligned.** Empirically, the estimation of equilibrium RER has proven difficult for developing and industrial countries, and these problems are compounded for transition economies. Simple PPP comparisons, while often constituting an informative starting point, are of limited usefulness. First, they require knowledge about a historical date at which the RER was in equilibrium. Second, the approach does not take into account that the equilibrium (internal) RER may shift over time due to the aforementioned factors. More sophisticated methods usually require a considerable amount of inputs, which represents a major obstacle in the case of transition economies.[6] For these countries, short consistent time series, limited sectoral data, and the lack of a clear benchmark equilibrium point are among the key difficulties.[7] Therefore, while the paper makes use of the results from earlier cross-country econometric studies, no new econometric analysis is attempted in this section. Instead, the section first presents historical developments in various measures of the internal and external RER, and compares the experience of Bulgaria to that of other economies at a similar stage of transition. Subsequently, an attempt to assess the significance of the Balassa-Samuelson effect analytically, and the relevance of a variety of other factors is discussed less formally.

Bulgaria's experience

12. **Bulgaria's RER has been on a generally appreciating trend throughout the transition.** At the beginning of the transition process, the (external) real effective exchange rate (REER), calculated as a weighted external exchange rate index using the CPI's of trading partners and competitor countries, was on a steep appreciating path (upper panel of Figure 2). However, this appreciation proved unsustainable, and after a large widening of the current account deficit, the exchange rate collapsed in early 1994. Over the period June 1994–December 1995, the REER appreciated at a lower rate. The following year and the first half of 1997 were marked by increasing macroeconomic and monetary instability approaching hyperinflation, which resulted in a total loss of confidence in the currency and dramatic weakening of the nominal effective exchange rate and, consequently, the REER. The stabilization of the economy following the introduction of the currency board in mid-1997 brought about a strengthening of the nominal exchange rate, and the REER quickly rose to levels above the ones prevailing before the collapse. Since July 1997, the REER has

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[5] For a discussion of these issues, see also EBRD (1997).

[6] For a further discussion of these problems, see Krajnyák and Zettelmeyer (1998).

[7] Two noteworthy attempts to overcome these problems have been made in the literature. Halpern and Wyplosz (1997) and Krajnyák and Zettelmeyer (1998) estimated equilibrium wages, which, under certain assumptions, can be linked to equilibrium real exchange rates. The latter article will be discussed further below.

appreciated further by 15 percent.[8] A similar conclusion is obtained by looking at the development of the internal RER (lower panel of Figure 2). A proxy for the internal RER was obtained by computing the relative price of services (to a large extent nontradables) to industry (composed mostly of tradables), using sectoral deflators. While the series is not long enough to allow for an analysis of the whole transition period, the index started to appreciate in 1997, with the cumulative appreciation since mid-1997 amounting to approximately 20 percent.

13. **The appreciation during the currency board period has been below the historical trend, suggesting no obvious misalignment.** The rate of RER appreciation since mid-1997 has been slower than the initial trend in 1992–3, and also slower than the trend between June 1994 and end-1995. Of course, the relevant question remains whether the current trend is sustainable. In that regard, it may be useful to evaluate Bulgaria's experience in the light of what has been observed in other transition countries.

14. **The RER appreciation experienced by Bulgaria since mid-1997 seems quite moderate compared with other transition economies.** This conclusion is based on a comparison with the appreciation seen by other transition countries over a period of three years, taking as a starting point *the year in which they were at a similar stage in the transition process as Bulgaria in mid-1997*. To identify the stages of transition of other economies that can be compared to that of Bulgaria in 1997, a comprehensive liberalization index developed by Denizer, De Melo, and Gelb (1996) is used.[9] For Bulgaria, this index, which can range between zero and one, took the value of 0.67 in 1997. For 12 other transition economies, the year in which each country's index was closest to 0.67 was identified and labeled as year "zero". Figure 3 indicates that according to this comparison, Bulgaria's appreciation since mid-1997 cannot be considered out of line; if anything, the pace of appreciation has been quite moderate.[10]

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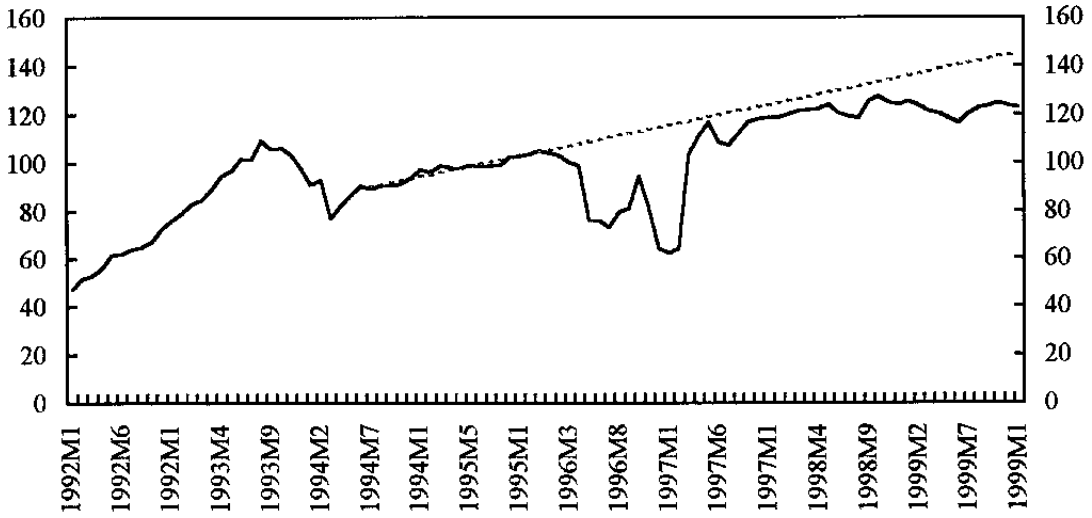
[8] The overall pattern of the REER based on producer price indices is similar, but this indicator shows a higher appreciation for the same period (27 percent). Excluding CIS countries—countries whose importance as trading partners is diminishing—from the computation of the REER did not have a noticeable impact on the indicator.

[9] This index is a weighted average of external and internal liberalization and private sector conditions indices, and it has been constructed for transition economies for the period 1989–1995. The EBRD constructs similar indices. However, they are only available since 1994. For 1996 and 1997, the Denizer, De Melo, and Gelb index was updated based on these EBRD indices following Garibaldi, Mora, Sahay, and Zettelmeyer (1999).

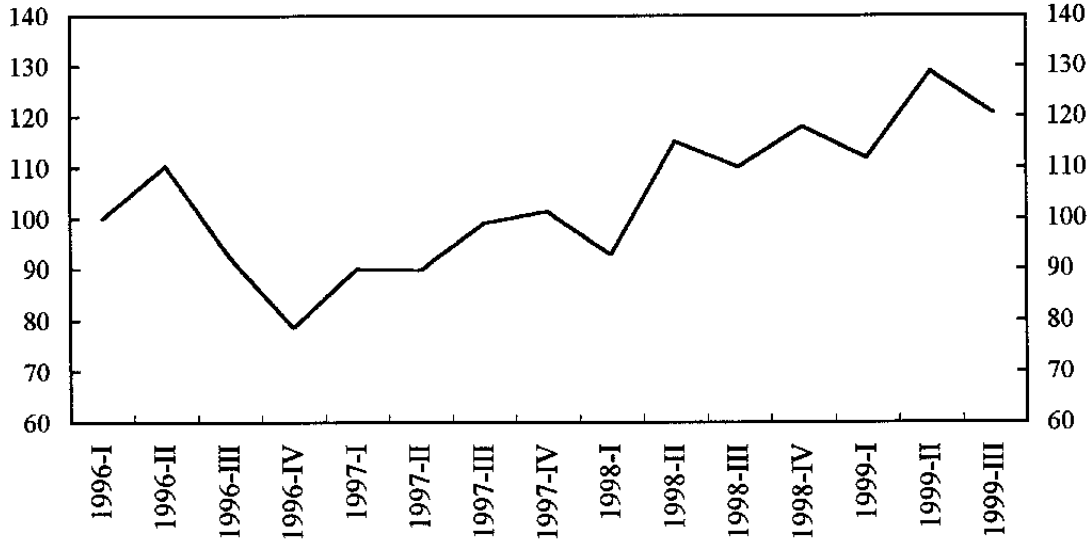
[10] Obviously, this is only one of many possible comparisons. In most transition economies, the REER followed a similar pattern since 1989: an initial sharp decline was followed by a steady appreciation (see Halpern and Wyplosz, 1997). Comparing the appreciation of the REER's since their respective historical minima puts Bulgaria in the upper range.

Figure 2. Bulgaria: The Internal and External Real Exchange Rate

External Real Effective Exchange Rate (REER) (1995=100)

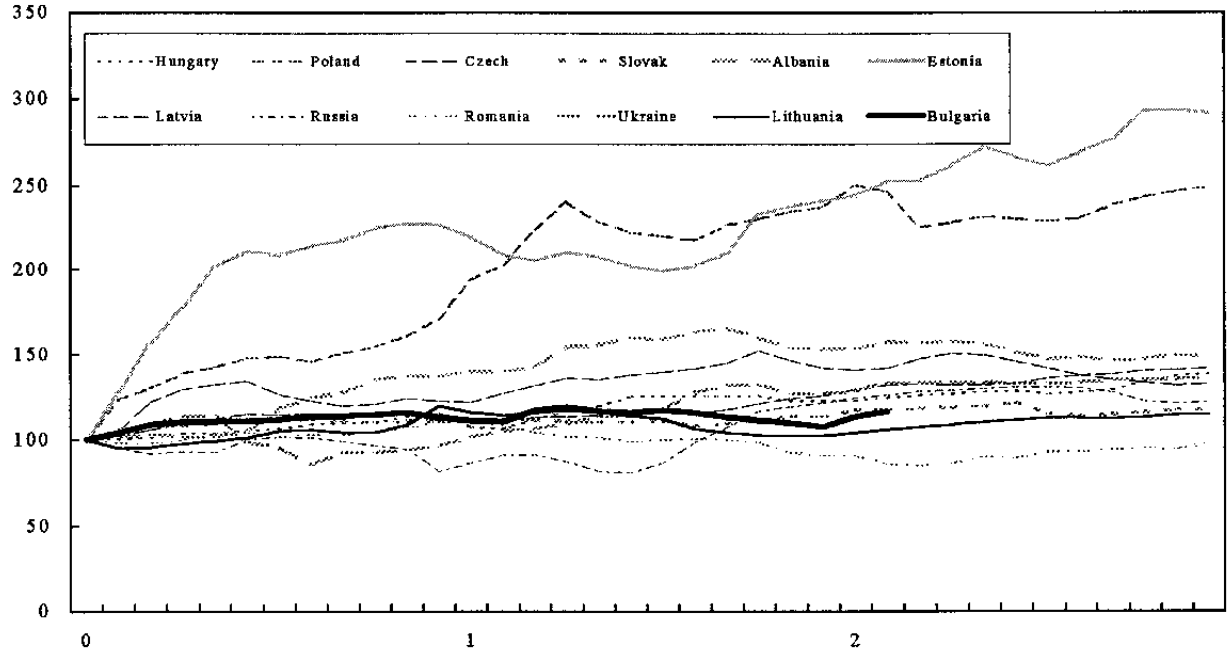


The Internal Real Exchange Rate -
(Relative Price of Nontradables to Tradables -
Services Deflator/Industry Deflator, 1996:I=100)



Source: IMF staff calculations based on NSI data.

Figure 3. Bulgaria: REER (CPI-based) in Selected Transition Economies (Year Zero=100)



Source: IMF Staff calculations based on data from national statistical agencies.

Wage-based real exchange rate indicators

Basic concepts

15. **A different set of indicators of competitiveness is based on wages rather than prices.** Since they are directly comparable across countries, U.S.dollar wages in the manufacturing sector are widely used to assess competitiveness. Theoretically, there is a clear link between wages and the internal and external real exchange rates. For example, in a simple two-sector model, if the tradables sector is more capital intensive than the nontradables sector, there is a positive relationship between the internal RER and dollar wages.[11] Similarly, higher wages are associated with higher price levels, yielding a positive relationship between wages and measures of the external RER. Moreover, wages corrected for differences in labor productivities—unit labor costs (ULC)—offer a good measure of profitability in the traded goods sector. By using ULC indices from various countries, one can compute measures that are similar to the external REER's discussed above.

16. **However, ULC measures also possess drawbacks.** While they are useful for assessing a country's ability to export, they are less informative regarding the broader determination of the current account. Since ULCs ignore the role of capital, they provide a misleading picture if productivity gains are the result of capital substitution for labor. Moreover, ULCs are quite sensitive to cyclical movements in labor productivity.[12] Also,

[11] See Krajnyák and Zettelmeyer (1998).

[12] See Marsh and Tokarick (1994). The authors also provide a formal derivation of the link between the REER based on CPI's and unit labor costs.

measures based on ULCs may provide incorrect information about profitability if there are intermediate goods in the production process. An additional empirical difficulty in the case of Bulgaria is the absence of comprehensive and accurate data on private sector wages.

Bulgaria's experience

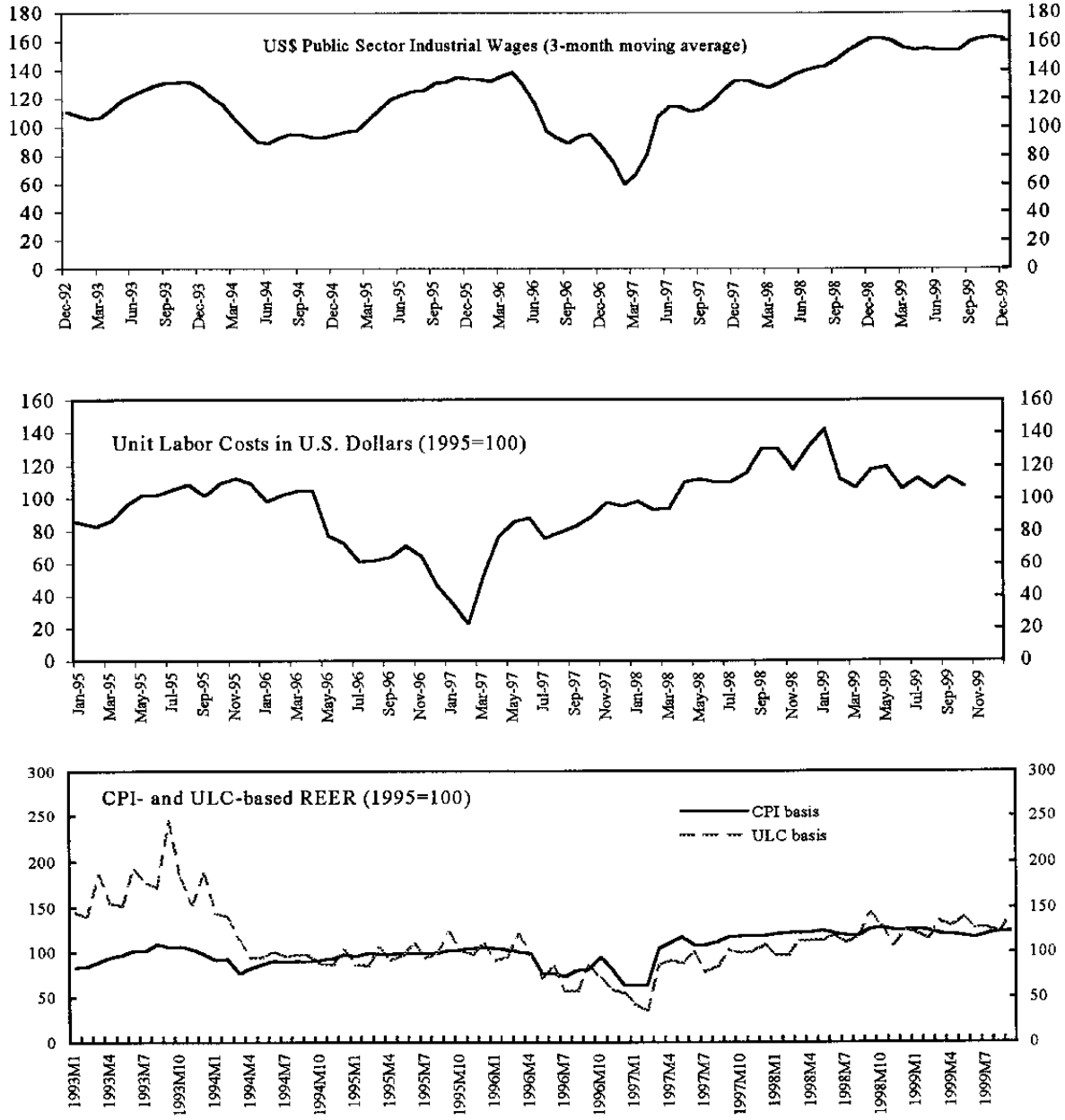
17. **The wage-based indicators tell much the same story as the price-based indicators: Bulgaria's present competitiveness does not appear to be out of line.** In recent years U.S. dollar wages, ULCs, and the ULC-based REER have moved along the lines of the CPI-based REER, suggesting no obvious loss of competitiveness (Figure 4).[13] Following an abrupt decline in 1996–97, U.S. dollar wages recovered after the stabilization of the macroeconomy and continued to increase steadily until March 1999. Since then, U.S. dollar wages have remained stagnant, in part reflecting a strong appreciation of the U.S. dollar against the euro (to which the lev is pegged). With productivity increasing, U.S. dollar unit labor costs declined by as much as over 20 percent during 1999, while the ULC-based REER has been broadly unchanged since late 1998.

18. **Bulgaria's wage levels continue to be low compared with other transition countries.** Among the countries for which comparable data are available, only Albania, Romania, Russia, and Ukraine report lower levels (Table 1). Also, among southeast European countries Bulgaria's budgetary sector wages are the third lowest after Albania and Romania (Table 2).

19. **A cross-country comparison of wage growth also shows Bulgaria to be in a prudent range.** As in the previous subsection, for each comparator country, "date zero" is defined as the year in which it had a similar score in the De Melo, Denizer, and Gelb (1997) liberalization index as Bulgaria had in 1997. U.S. dollar wage increases in Bulgaria since 1997 have remained below those experienced in Albania, Latvia, and Lithuania, but above those in Hungary, Romania, and Russia since their year zero. Of course, this comparison intentionally ignores the differing starting levels (wages in Hungary were nearly three times as high as Bulgaria's in year zero, but those in Lithuania were only half as large) and should be interpreted cautiously.

[13] Owing to the aforementioned lack good private sector wage data, the analysis below is based on public sector industrial wages.

Figure 4. Bulgaria: Wage Indicators.



Source: Staff calculations based on data from NSI.

Table 1. U.S. Dollar Gross Industrial Wages in Selected Transition Economies

	1998	July/August 1999
Bulgaria	**144**	**157**
Albania	88	n.a.
Croatia	649	622
Czech Republic	367	372
Estonia	293	297
Hungary	327	315
Latvia	226	269
Lithuania	233	n.a.
Poland	359	425
Romania	121	135
Russia	114	62
Slovak Republic	293	257
Slovenia	795	760
Ukraine	76	n.a.

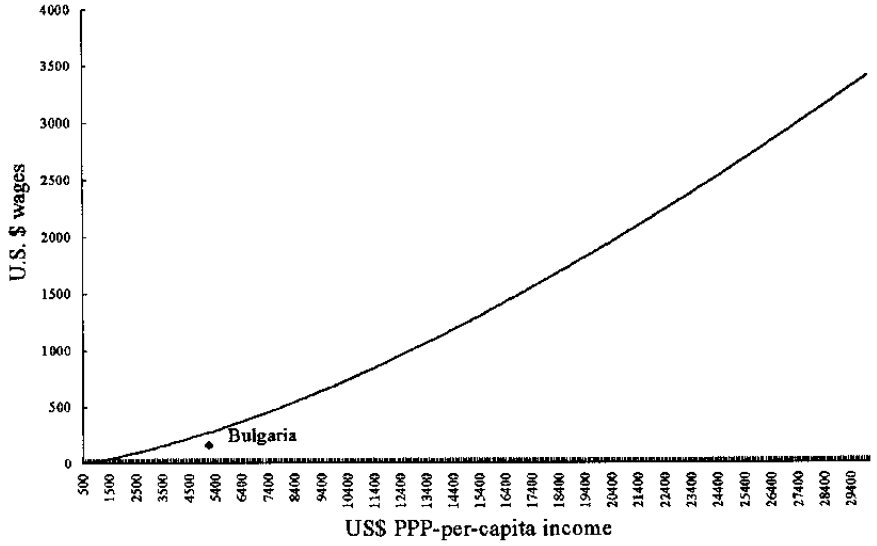
Source: IMF staff estimates based on data from national statistical agencies.

Table 2. Budget Sector U.S. Dollar Wages in Southeast European Countries

Bulgaria	Albania	Bosnia/ Herzegovina	Croatia	FYR Macedonia	Romania
93	83	205	502	182	77

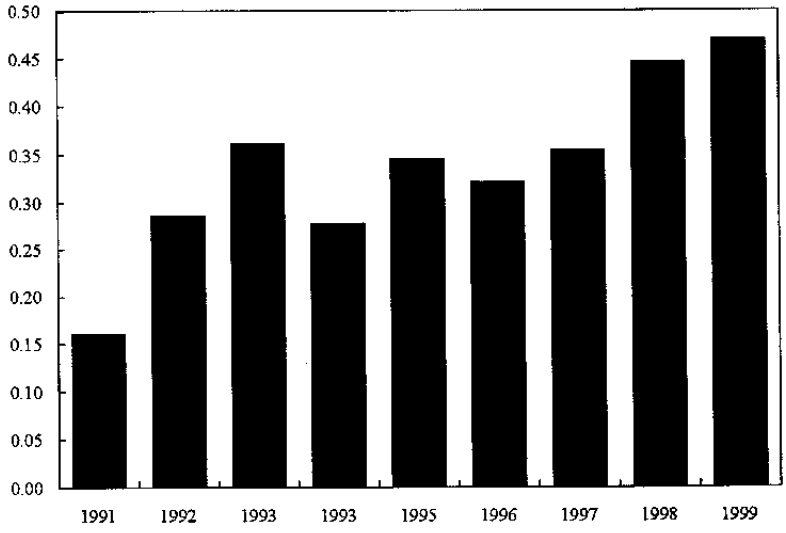
Source: IMF staff estimates based on data from national statistical agencies.

Figure 5. Bulgaria: US$ Wages and PPP-per Capita Income



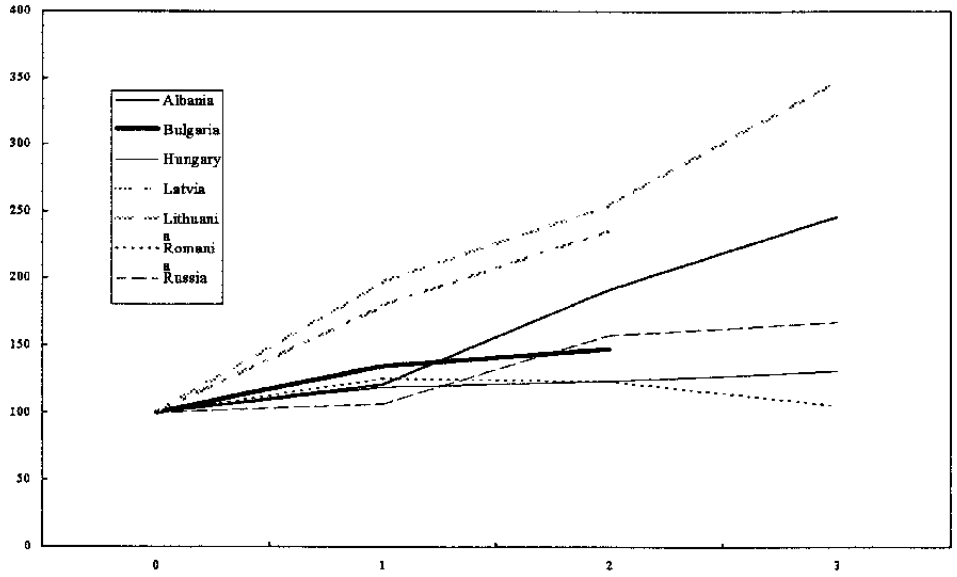
Source: Staff calculations based on estimates by Krajnyák and Zettelmeyer (1998).

Figure 6. Bulgaria: Wage Gap
(Estimated Equilibrium U.S. Dollar
Wages as a Fraction of Estimated Equilibrium Wages)



Source: Staff calculations based on estimates by Krajnyák and Zettelmeyer (1998).

Figure 7. Bulgaria: US$ Wages in Selected Transition Economies (Year 0=100)



Source: IMF staff estimates based on data from national statistical agencies.

Minimum wages

20. **The present level of Bulgaria's minimum wage does not appear to be a major threat to competitiveness.** During the near-hyperinflation of 1996–97, the real value of the minimum wage had eroded substantially, reaching a low point at the equivalent of US$5 per month in early 1997 (Figure 8). Subsequently, the minimum wage was raised faster than other wages, and after a recent increase from US$35 to US$39 per month from February 2000, the ratio of minimum to average wage is now comparable to that in other transition economies (where it is typically one third, see Table 3). The government has decided that this ratio will be maintained in the future, through semiannual adjustments in the minimum wage in line with increases in public sector wages. The economywide significance of the minimum wage does not seem to be very large, since few workers (including only 1 percent of budgetary sector employees) actually receive it and given that the only remaining indexation is the link to minimum social security contributions.

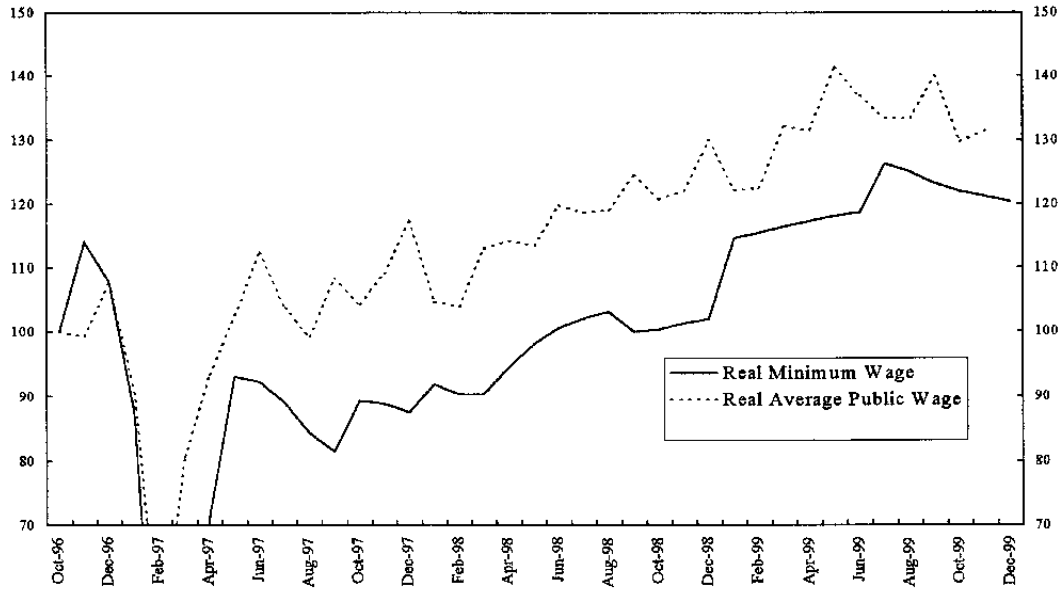
Table 3. Minimum and Average Wages in Selected Transition Economies, 1999

	Bulgaria	Czech Republic	Estonia	Latvia	Poland	Romania	Russia	Slovak Rep.	Ukraine
Average Wage in US$	117**	372	293*	269	425	128	114*	257	76*
Minimum Wage in US$	34	104	73*	86	164	29	9*	96	16*
Ratio Min-Average	0.29	0.28	0.27	0.32	0.39	0.23	0.08	0.38	0.21

*1998
**Average Public Wages

Source: IMF staff estimates based on information from national statistical agencies.

Figure 8. Bulgaria: Real Minimum and Average Public Wages (1995=100)



Source: NSI.

Possible explanations for the observed RER appreciation

21. **While the observed real appreciation in Bulgaria in recent years appears moderate, it is important to ascertain that it reflects the fundamentals and not a misalignment.** To further probe the issue of whether Bulgaria's competitiveness is adequate, this section takes a look at the behavior of some key fundamentals that may explain the observed RER behavior. While empirical problems preclude a quantitative assessment of the relative importance of these factors, the evidence indicates that the Balassa-Samuelson effect, price liberalization, and to some extent changes in capital inflows and government spending likely contributed to the RER appreciation since 1997. By contrast, a deterioration in the

terms of trade and a reduction in import tariffs put some downward pressure on the RER in 1999, possibly preventing a further appreciation in that year.

The Balassa-Samuelson Effect

22. **The Balassa-Samuelson effect refers to the impact of differential productivity growth rates in the tradables and nontradables sectors on the internal RER.** Typically, productivity growth tends to be faster in the traded goods sector. If wages are equalized in the two sectors, this means that the relative price of nontraded goods will tend to increase. To the extent that the observed relative increased in the internal RER can be traced to such productivity differentials, it can be regarded as an equilibrium phenomenon, and does not imply a loss in competitiveness. Formally, in a simple model of a small open economy with Cobb-Douglas sectoral production functions, the relative price of nontradables can be expressed in the following way:

$$\frac{p_{NT}}{p_T} = \frac{(A_T)^{\frac{\delta}{\gamma}}}{A_{NT}} \quad (1),$$

Here p, A, δ, and γ denote prices, total factor productivity, and the labor shares in the nontraded and traded sectors, respectively, and the subscripts *T* and *NT* stand for traded and nontraded sectors. This relationship is expected to hold in the long run; hence demand factors and temporary wage differentials due to imperfect labor mobility across sectors are ignored.

23. **Even for industrial countries, this effect has been estimated to be significant.**[14] In the case of Portugal, Swagel (2000) estimates that the Balassa-Samuelson effect could account for as much as 2.5 percentage points of the annual inflation. For transition economies, the effect is likely to be larger.

24. **What role has the Balassa-Samuelson effect played in Bulgaria?** Given data problems, precise estimates are hard to come by, but the evidence points to this effect being a main factor responsible for Bulgaria's real appreciation. This is demonstrated in Figure 9, which shows the relative price of nontradables as predicted by equation (1), together with the actual evolution of the price ratio.[15] The actual and predicted price ratios tend to move in tandem. In fact, until the second half of 1999, the calculations indicate that the observed real appreciation could be fully explained by changes in relative productivity. In the third quarter, however, output in the service sector grew much stronger than in the industry sector, and this was not fully reflected in a corresponding fall in relative prices. As a result, the predicted RER stood at 6.5 percent lower than the actual RER. Keeping in mind, however, that labor

[14] See for example, De Gregorio, Giovannini and Krueger (1994), De Gregorio, Giovannini and Wolf (1994), Alberola-Ila and Tyrväinen (1998), and Swagel (2000).

[15] Owing to lack of reliable data, labor shares were assumed to be constant. As a proxy for the relative price of nontradables, the same sectoral deflators as above are employed. Since the necessary capital stock data to compute total factor productivity is unavailable, labor productivities are used instead. This approximation is justifiable as long as the capital-labor ratios do not change much faster in one sector than in the other.

productivities are bound to fluctuate in the short run, and that the model is intended to capture long-term trends, the calculations provide clear support for the view that a substantial fraction of the observed appreciation can be traced to shifts in productivities.

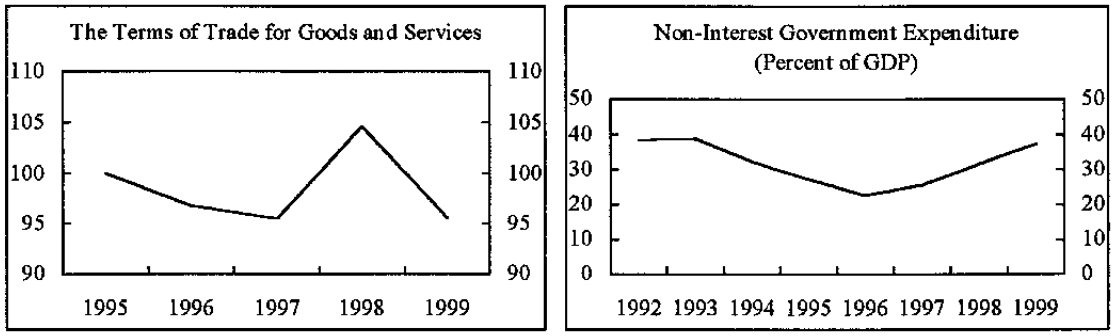
Figure 9. Bulgaria: The Relative Price of Nontradables to Tradables—Actual and Predicted

Source: Staff calculations based on data from NSI.

Other factors explaining appreciation

25. **Other factors—whose importance is more difficult to assess quantitatively—are also likely to have contributed to the observed appreciation since mid-1997.** First, to the extent that administered prices, particularly in the utilities sector, have been set below market prices, their liberalization results in an equilibrium increase of nontraded goods prices. In Bulgaria, prices were liberalized substantially at the beginning of 1999, when the share of administered prices in CPI was reduced to 14.3 percent. In the same year, these prices increased by 22 percent whereas the overall CPI increase was just 6.2 percent. Second, government expenditures (weighted toward nontradables) have increased markedly since the crisis of 1996/97 (Figure 10), which should have resulted in some equilibrium appreciation. Finally, Bulgaria's improved capital account position has created room for an equilibrium appreciation: a net outflow of 9.4 percent of GDP in 1996 had turned into a net inflow of 6.2 percent of GDP in 1999.

Figure 10. Bulgaria: Government Expenditure and the Terms of Trade



Factors working against appreciation

26. **Some other factors are likely to have exerted downward pressure on the RER, particularly in 1999.** Over the last three years, Bulgaria has reduced average tariff rates from 16.8 percent in 1997 to 13.7 percent from the beginning of 2000. Non-tariff barriers were also substantially reduced: import surcharges have been eliminated, all but one export ban lifted, export taxes removed, and import licensing abolished. The direct effect of these measures is to put pressure on the equilibrium RER to depreciate. However, trade liberalization also has indirect effects that can be substantial: a more open trade regime is likely to enhance the adoption of more advanced technologies, increasing productivity and enhancing the Balassa-Samuelson effect. Movements in the terms of trade represent another factor: while Bulgaria's terms of trade improved in 1998, they worsened in 1999 (Figure 10). This exerted downward pressure on the equilibrium RER in 1998 and upward pressure in 1999 when the real appreciation indeed stalled.

C. Bulgaria's Export Performance

27. **This section looks at export performance, perhaps the most direct test of competitiveness.** In Bulgaria's case the assessment is complicated by adverse shocks whose effects are difficult to disentangle from those of a possible loss in competitiveness. The picture that emerges is that throughout the 1990s Bulgaria's export growth was rather modest, and the country made only limited inroads into the EU market. The performance in 1998–99 was particularly disappointing as exports actually fell in both years. This slump appears, however, to have been mainly attributable to severe, largely temporary shocks, and exports started to recover in the second half of 1999. While this would indicate the absence of an imminent threat to competitiveness, there is clearly a need to persevere with macroeconomic stabilization and structural reforms to consolidate these gains.

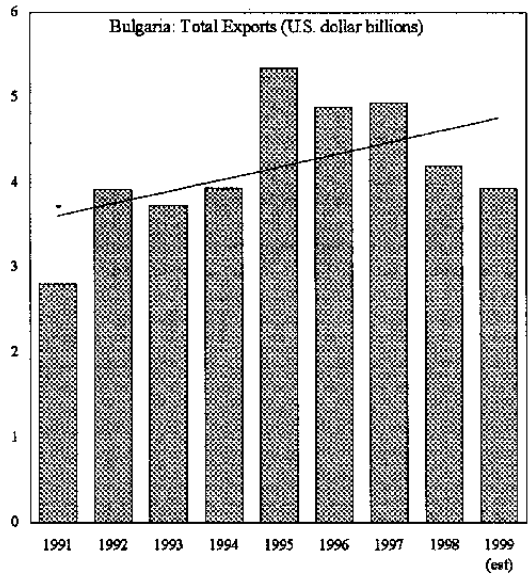
28. **Bulgaria's exports were relatively stagnant during the 1990s, especially when compared with the experience of the more advanced transition economies.** In 1998–99, Bulgaria's exports were only some 20 percent higher than at the beginning of the transition in 1991–92 (Figure 11). While this performance compares reasonably well with other countries in the region, it is modest when compared with the substantially higher growth rates in the more advanced central European transition countries (Figure 12).

29. **The overall picture of sluggish export growth masks three distinct phases.** The first phase was marked by strong export growth of some 20 per annum during 1992–95. This

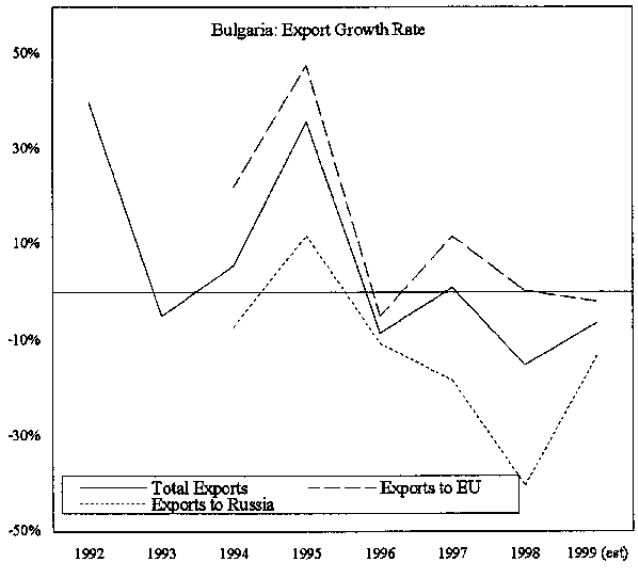
was followed by a period of stagnation in 1996–97 at the time of the foreign exchange and financial sector crisis. Thereafter exports slumped during 1998–99, experiencing two successive years of negative growth at an annual average rate of –10 percent.

30. **The sharp pick-up in exports during the first phase largely reflected the opening up of Bulgaria's economy following decades of relatively limited trade with countries outside the former Soviet Union.** The normalization of Bulgaria's economic relations with western Europe provided a strong initial impetus for export growth, and helped to offset the effects of a slowdown in industrial country trading partners during 1992–3 and of trade sanctions on Serbia and Montenegro which blocked Bulgaria's export routes during 1993. During the first half of the decade, Bulgaria also succeeded in diversifying its export markets away from its traditional partners toward the EU (Figure 13 and Table A47). The share of exports to the EU grew 26 percent during 1993–95, mostly at the expense of Russia, traditionally Bulgaria's largest export partner. Also, Bulgaria's market share in the EU improved by 50 percent during this period (Figure 14).

Figure 11. Bulgaria: Export Performance During the 1990s

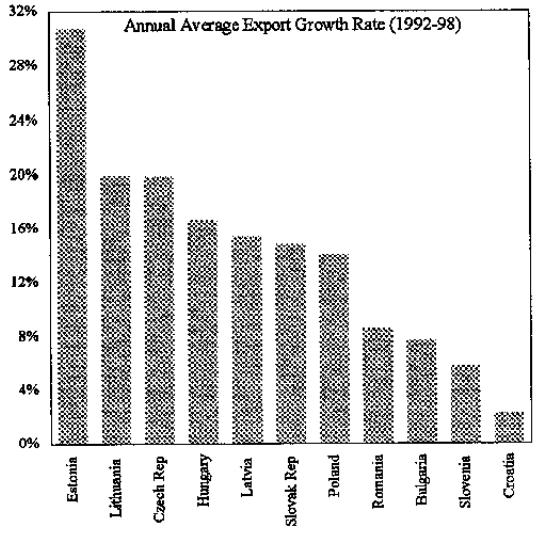


Source: Bulgarian authorities.

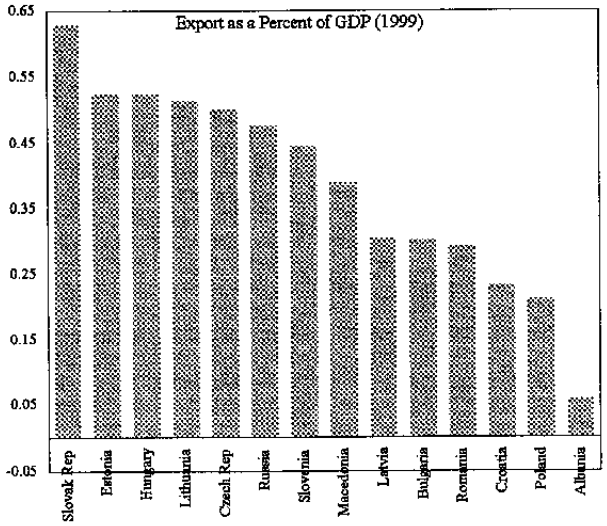


Source: Bulgarian authorities.

Figure 12. Export Performance of Selected Countries



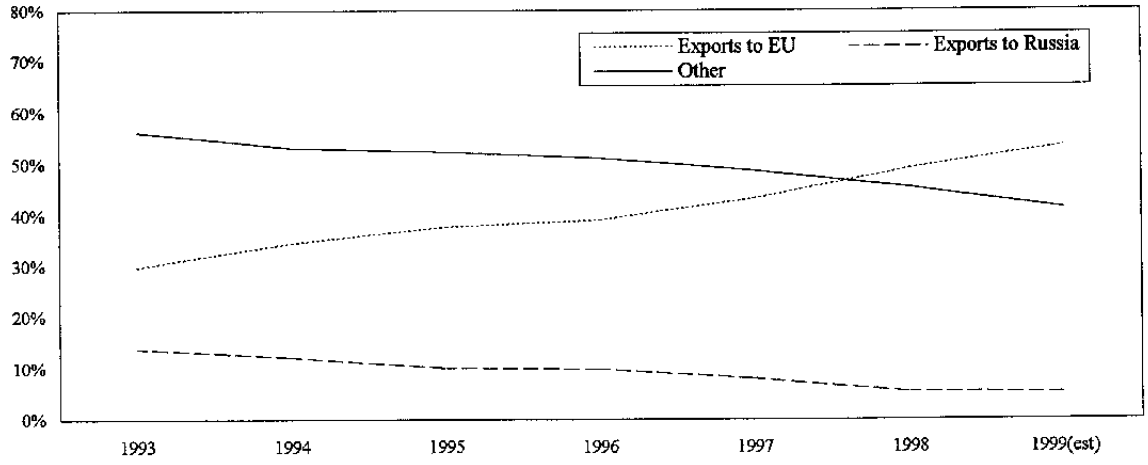
Source: EBRD Transition Report 1999.



Source: WEO.

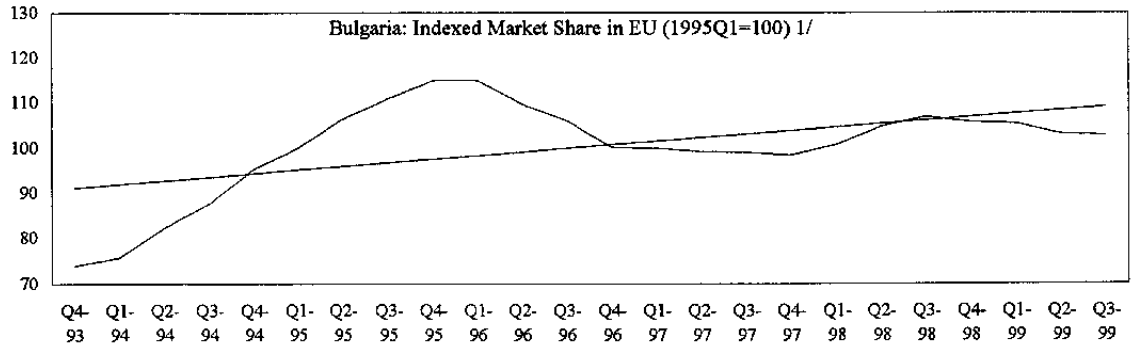
1/ Data for Poland and Hungary for 1993-98, for Slovak Republic for 1994-98.

Figure 13. Bulgaria: Direction of Trade (Percent of Total Exports)

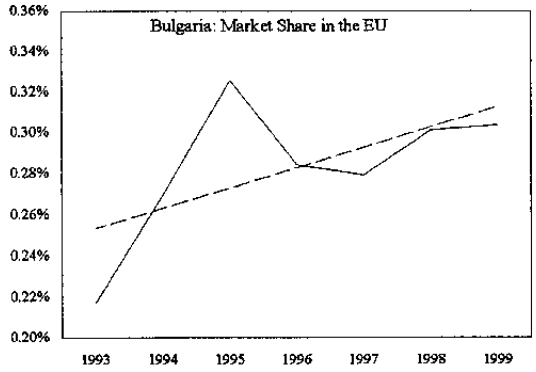


Source: Bulgarian authorities.

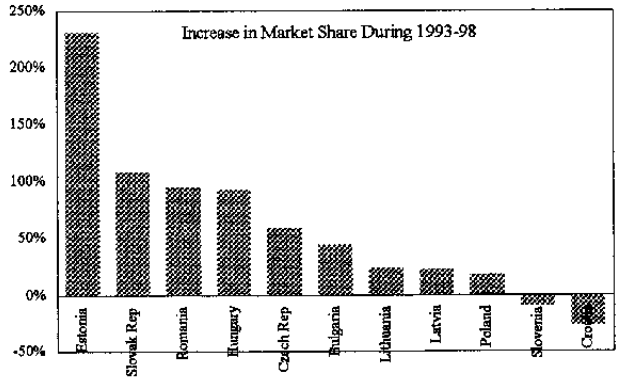
Figure 14. Bulgaria: Market Share in EU Imports



Source: Direction of Trade Statistics, IMF.



Source: Direction of Trade Statistics, IMF.



Source: Direction of Trade Statistics, IMF.

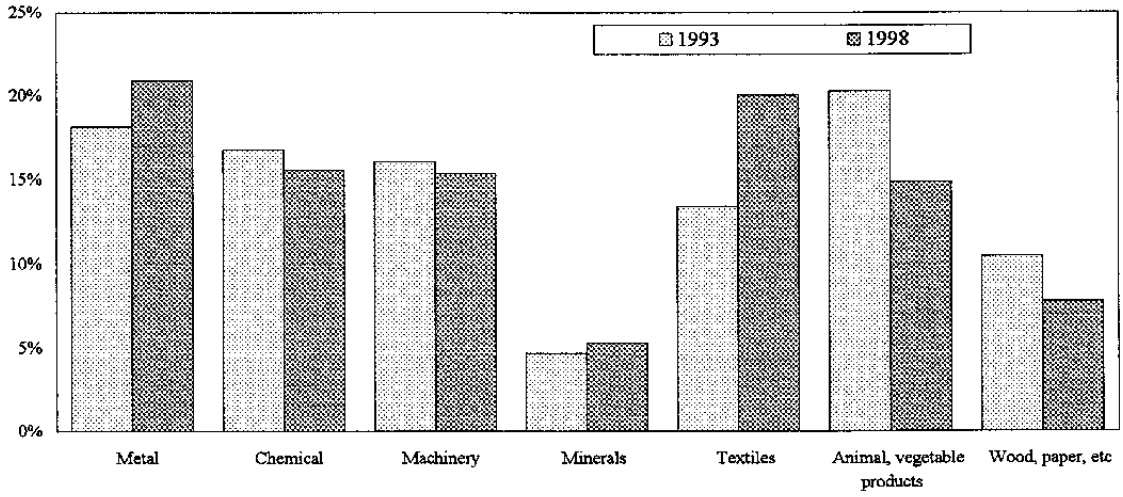
1/ Index of market shares of cumulative exports over four preceding quarters.

31. **The stalling of exports during 1996–97 was largely attributable to insufficient progress on structural reforms**. Indeed, this underlying weakness was already evident from the limited product differentiation of exports during the phase of high export growth (Figure 15). In the absence of restructuring of key export-oriented state enterprises accounting for the bulk of exports, Bulgaria's exports continued to be dominated by machinery, chemicals, and metals, which comprised more than half of total exports in 1997 (Table 4 and A46).[16] While some reforms were started during this period, the tentative nature of these reforms implied that the fruits of liberalization would be reaped only over time. Small initial steps were taken toward effectively restructuring enterprises which had been shut off from generous credit pipelines after the 1996 banking crisis. The reversal of interventionist agricultural policies which had hurt agricultural exports got off to a tentative

[16] Typically, as transition economies develop, the traditional reliance on exports of heavy industrial goods and machinery is replaced by exports of new products with increased specialization at a finer level of product detail. See *Growth Experience in Transition Economies*, SM/98/228.

start. Trade liberalization began, albeit at a slow pace initially (Tables A59–A61)[17] [18]. The delays in introducing reforms (and the lack of macroeconomic stability until the currency board was put in place in mid-1997) reduced investor confidence, explaining Bulgaria's limited success in attracting foreign direct investment when compared to other transition countries in the region (Figure 17). According to business surveys, other factors such as corruption, bureaucracy, and administrative inefficiencies also acted as deterrents to foreign investment, and help explain Bulgaria's relatively late start in attracting foreign direct investment flows.[19]

Figure 15. Bulgaria: Product Diversification of Exports (1993-98)
(Percentage of total exports)



Source: Bulgarian authorities.

[17] Bulgaria has made great strides in liberalizing its trade regime in recent years, and there are plans to undertake additional measures to liberalize trade during 2000. If these measures are fully implemented, Bulgaria's trade regime will merit a 2 ("open") as measured by the IMF's index of aggregate trade restrictiveness, as compared to a 6 ("moderately restrictive") in 1998.

[18] Indeed countries which have made the biggest strides in liberalizing trade regimes are also those which seem to have experienced the most significant improvements in exports since the beginning of stabilization (Table 5 and Figure 16) as defined in Fischer, Sahay, Vegh (1996). This definition of stabilization is different from that used in Section B.

[19] In other transition economies (for example, Estonia, Latvia, Lithuania) a rapid growth in exports has been linked to the transfer of technology, management, marketing skills, and corporate governance associated with strategic foreign investors (The Baltics—Exchange Rate Regimes and External Sustainability, SM/99/282).

Table 4. Enterprise Reform Index and Overall Reform Index

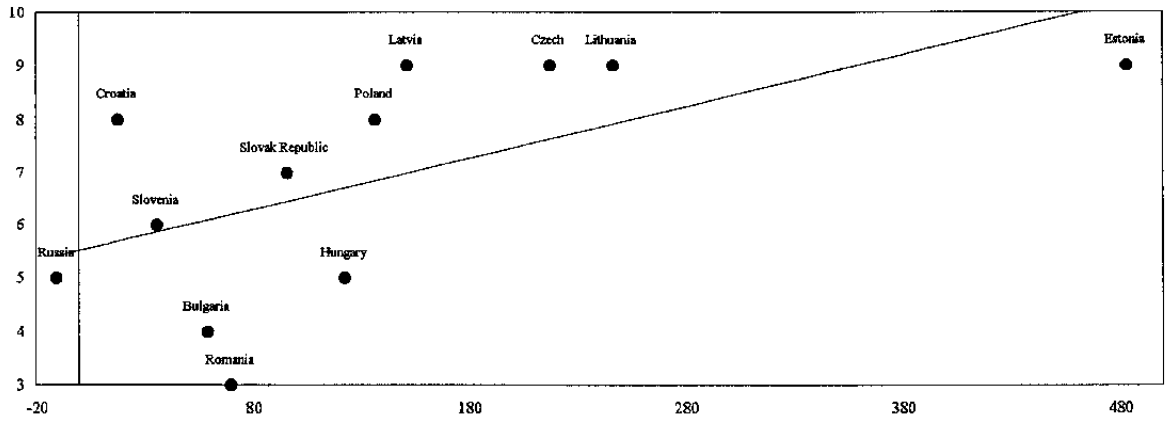
Enterprise Reform Index 1/		*Overall Reform Index (1997) 8/*	
Hungary	3.3	Romania	0.66
Czech Republic	3	Bulgaria	0.67
Estonia	3	Russia	0.72
Poland	3	Croatia	0.74
Croatia	2.7	Lithuania	0.74
Latvia	2.7	Latvia	0.74
Lithuania	2.7	Slovak Republic	0.77
Slovak Republic	2.7	Slovenia	0.79
Slovenia	2.7	Poland	0.81
Bulgaria	2.3	Czech Republic	0.82
Romania	2	Estonia	0.82
Russia	2	Hungary	0.87

Source: EBRD Transition Report, 1999 and Growth Experience in Transition Economies (SM/98/228).

1/ In 1998. Scores of "1" and "4" imply limited progress and good progress respectively.

2/ Using an overall structural reform index, as constructed by de Melo et al. (1996) and updated using the EBRD structural reform index.

Figure 16. Correlation Between Export Growth and Trade Reform Since the Beginning of Stabilization



Source: EBRD Transition Report 1999 and IMF staff estimates.

1/ The degree of trade liberalization is measured by the change in a country's current score according to the IMF's trade restrictiveness index, and the most "restrictive" score of 10. This assumes that the countries in the sample had very restrictive trade regimes at the beginning of stabilization. This assumption is justified by the fact that before stabilzation began these countries had centrally planned trade and barter trade agreements.

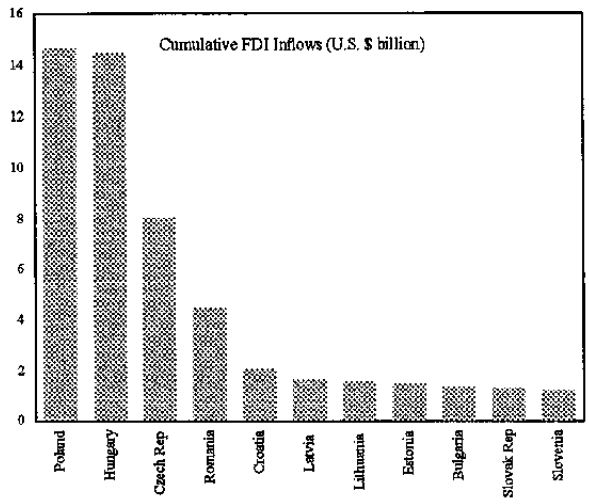
Table 5. Cross Country Comparison of Trade Parameters

	Trade Restriction Index Score 1/			Average tariff	Non-Tariff Barriers
	1997	*1998*	*1999*		
Estonia	1	1	1	0	1
Lithuania	1	1	1	4.5	1
Latvia	2	2	1	5.3	1
Slovenia	5	4	4	5.7	2
Czech Republic	1	1	1	6.9	1
Slovak Republic	2	1	3	7	1
Poland	2	2	2	11.6	1
Croatia	2	2	2	12.1	1
Russia	2	5	5	12.6	2
Hungary	6	5	5	13.3	2
Bulgaria	7	6	6	15.1	2
Romania	5	6	7	19.8	2

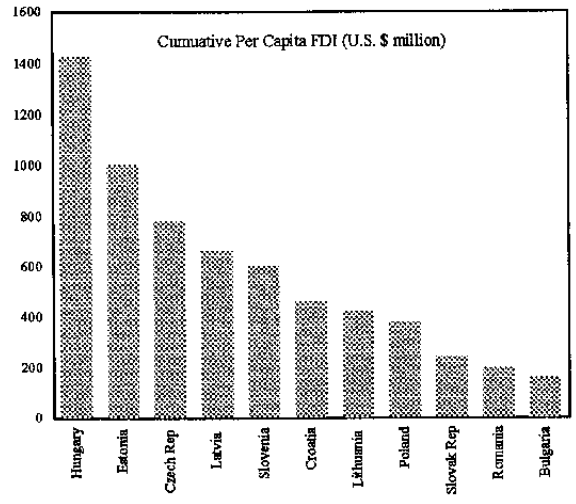
Source: IMF.

1/ As defined in EBS/97/163, *Trade Liberalization in Fund-Supported Programs*. The index consists of a 10-point scale that combines measurments of the restrictiveness of tariffs and non-tariff barriers. It measures the overall restrictiveness of a country's trade system relative to protection levels in all Fund members. A rating of 1 represents the most open trade regime and 10 the most restrictive.

Figure 17. Cumulative FDI Inflows (1989-98)



Source: IFS, and WEO.

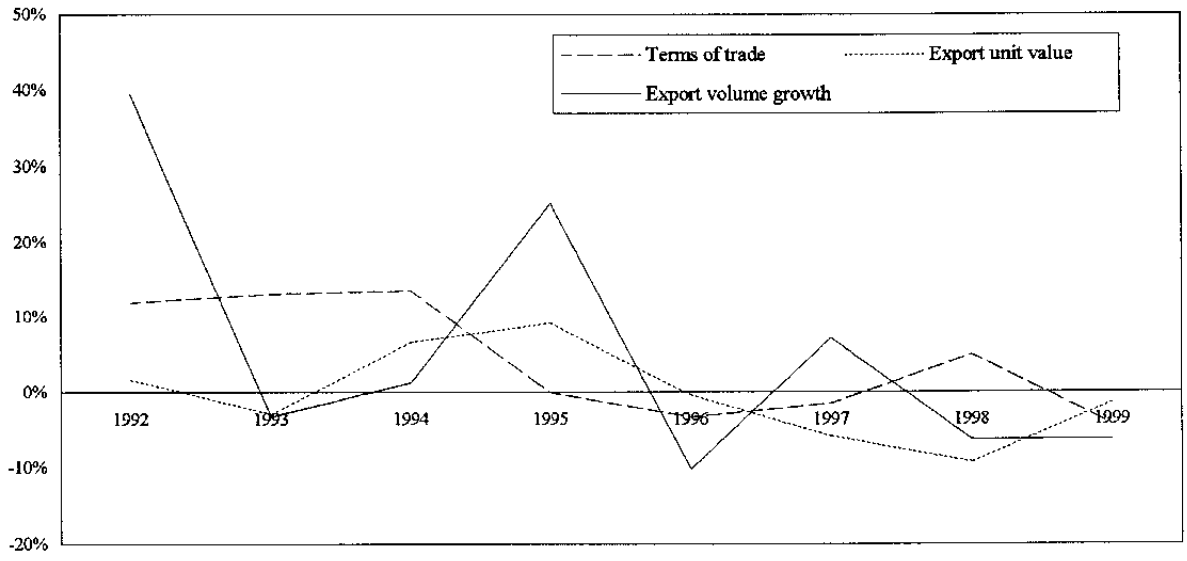


Source: IFS, and WEO.

32. **The slump in exports during 1998–99 appears to have been primarily the result of adverse external shocks and disruptions caused by the delayed start of intensive enterprise restructuring** (Figure 18–19). Two external shocks dealt a major blow to Bulgaria's exports in 1998–99. First, the global financial crises weakened Bulgaria's external

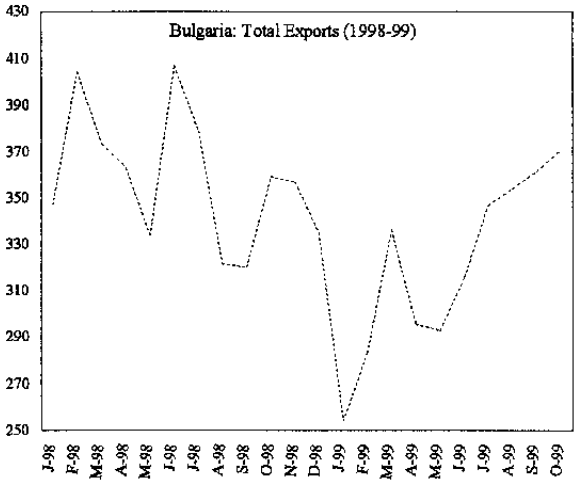
environment markedly. Bulgaria's export prices fell by 9 percent in 1998, and remained at that lower level in the following year (Table A44). At the same time, partner country demand was weak, contributing to negative export volume growth in both years. Second, in March–June 1999 the Kosovo crisis blocked transport routes to Bulgaria's main export markets in Europe, causing delays, cancellations, and costly rerouting. The land routes were restored during the summer, but transit by ship along the Danube river remains blocked to date. In all, export losses to Bulgaria from the Kosovo crisis during 1999 are estimated at some $100 million, or 2½ percent of annual exports. However, the poor export performance in 1998–99 cannot be fully explained by the negative external shocks as other countries in the region, similarly affected by the shocks, out-performed Bulgaria during this period (Figure 20). An additional explanation lies in the fact that Bulgaria started a serious restructuring of its traditional export-oriented state enterprises only during 1998–99. This restructuring caused inevitable disruptions which exacerbated the adverse effects of the external shocks on exports. Reflecting the combined effect of all these shocks, the growth in Bulgaria's market share in the EU faltered during 1998–99, and remained on a plateau from the second half of 1998.

Figure 18. Bulgaria: Export Price and Demand
(Annual Growth Rate)

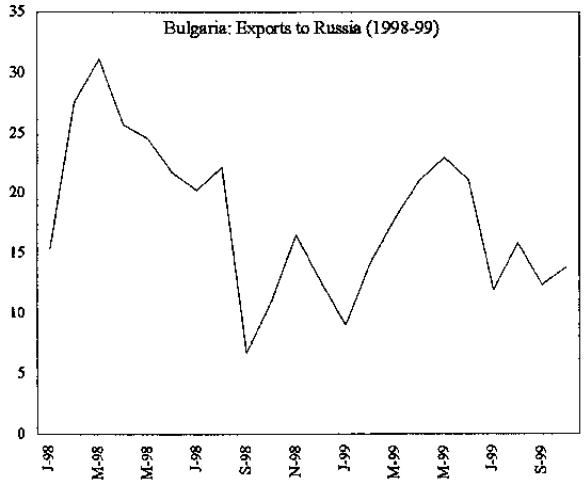


Source: IMF World Economic Outlook and staff estimates.

Figure 19. Bulgaria: Monthly Exports (millions of U.S. dollars)

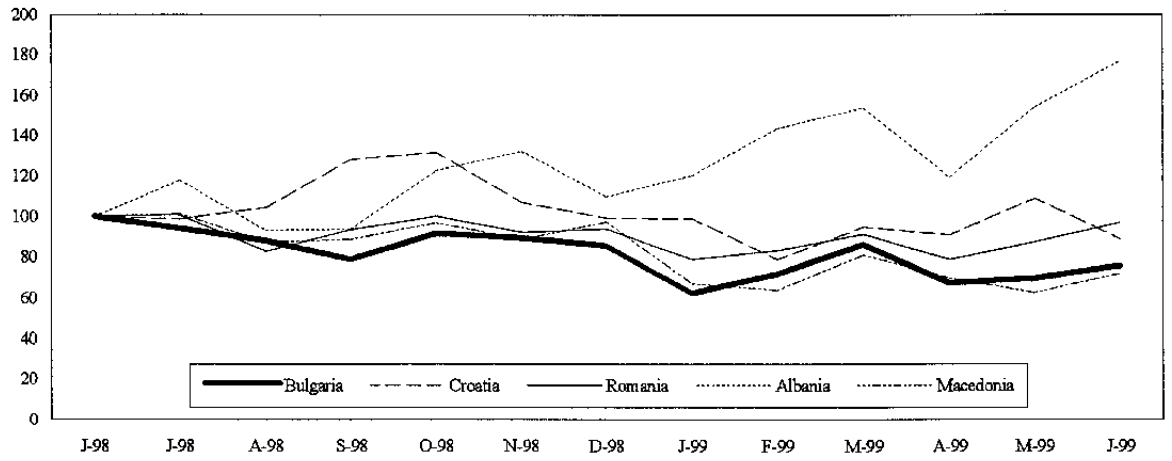


Source : Bulgarian authorities.



Source : Bulgarian authorities.

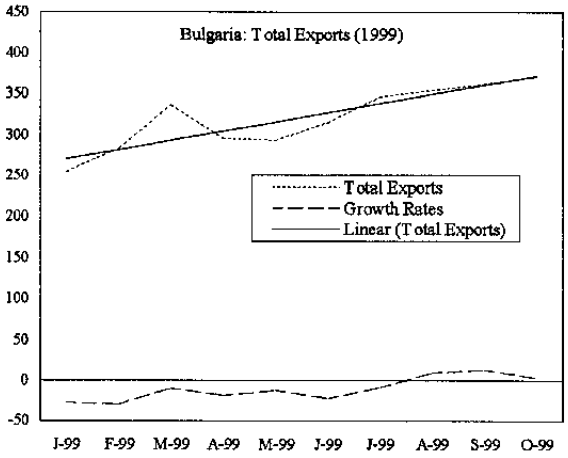
Figure 20. Exports by Selected Countries Since Mid-1998
(January 1998=100)



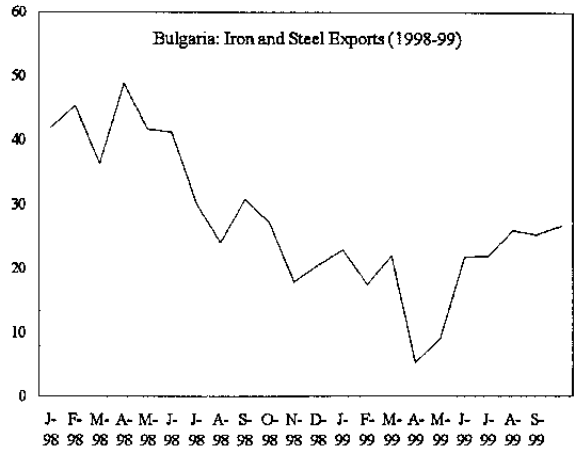
Source: IMF staff estimates.

33. **A recovery in exports from mid-1999 suggests that the slump was not attributable to inadequate competitiveness.** The recovery which has so far been rather gradual reflects the tapering off of the external shocks. While the disruptions from restructuring continue to some extent, some enterprises in the traditional sector—such as iron and steel—have resumed production for exports after being restructured or privatized (Figure 21). Indeed, for the first time since 1991, a discernible shift in the commodity structure of exports has become evident. While traditional commodities like metals, chemicals, and machinery still dominate, a pick up in the growth in some categories of non-traditional exports such as textiles has begun (Figure 22). There have also been recent signs of an improvement in Bulgaria's market share in EU imports (Figure 23).

Figure 21. Bulgaria: Export Recovery During 1999

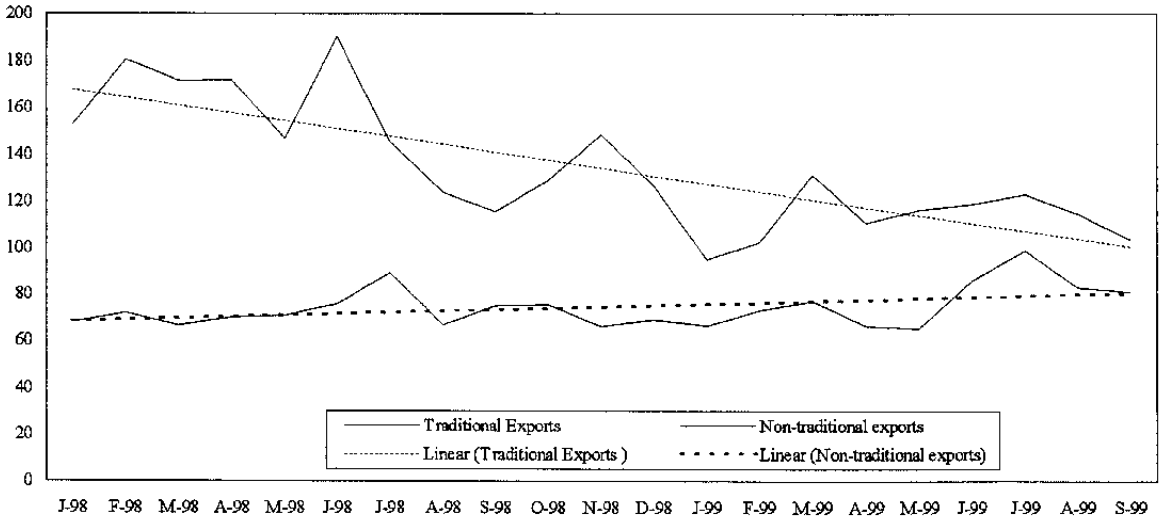


Source : Bulgarian authorities.



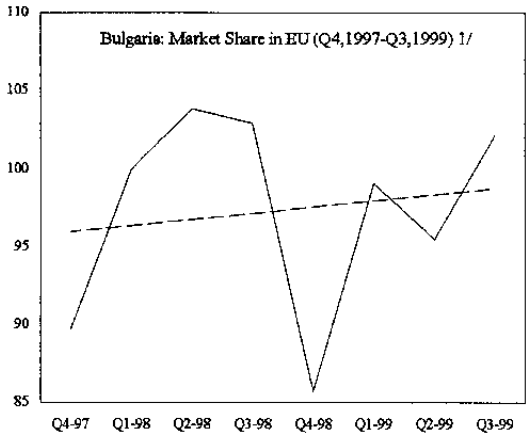
Source : Bulgarian authorities.

Figure 22. Bulgaria: Traditional and Non-traditional Exports
(In millions of U.S. dollars)



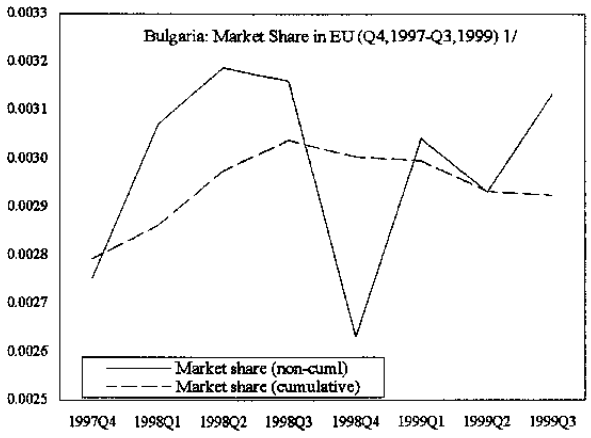
Source : Bulgarian authorities.

Figure 23. Bulgaria: Market Share in EU Imports (1998-99)



Source: Direction of Trade Statistics, IMF.

1/ Index of market shares of exports (non-cumulative), 1998Q1 = 100. Dotted line denotes the trend.



Source: Direction of Trade Statistics, IMF.

1/ "Cumulative market share" equals index of market shares of cumulative exports over four preceding quarters.

D. Implications for Economic Policy

34. **It appears that Bulgaria's competitiveness is not immediately under pressure despite the weak export performance over the past few years.** Bulgaria's success in preserving competitiveness in the face of external shocks can be attributed to the appropriate and timely policy responses taken by the authorities, and the acceleration of much-needed reforms in the last two years which have already begun to be yield dividends.

35. **The challenge now is to stay on course and persist with policies that will maintain and even strengthen competitiveness.** Bulgaria's currency board arrangement allows it very few degrees of freedom, and therefore policy efforts need to continue on a wide front. The list of is would include, inter alia, completing the restructuring of export-oriented state enterprises, land reform, as well as structural reforms to improve the competitiveness of the economy, improve the business climate and support the operation of the private sector. The key priorities include the following:

- to ensure that real wage increases are in line with productivity growth, including through continuing a strict incomes policy for state enterprises;
- to remove labor market rigidities through amendments in the labor laws;
- to complete the restructuring of the remaining large state enterprises and utilities;
- to improve administrative efficiency through continued improvements in public administration and training;

- to reduce red tape and corruption to attract foreign direct investment and support the private sector;
- to improve financial sector intermediation; and
- to streamline and enhance the existing legal and regulatory framework.

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II. Pension and Health Reforms in Bulgaria: Restoring Sustainability[1]

A. Introduction and Summary

By the late 1990s, the pension and health systems in Bulgaria were on a financially unsustainable path and had become highly inefficient. In the case of pensions, adverse demographics, a low effective retirement age, and declining social insurance revenues despite high contribution rates had led to large unfunded liabilities. As for health care, the main problem was a declining quality of services provided at increasing costs to patients. Ambitious reforms of the pension and health systems were initiated in 1999–2000. If fully implemented, these reforms should restore the viability of the social insurance schemes and improve their efficiency.

1. **By the late 1990s, the pension and health systems had become unsustainable**. The traditional pay-as-you-go (PAYG) pension system administered by the National Social Security Institute (NSSI) was under severe stress: the population was on a declining trend and aging rapidly, and the average effective retirement age had fallen to 56 years owing to the widespread use of early retirement as a social policy tool. Moreover, social insurance revenues had declined substantially during the transition despite high contribution rates, reflecting weak compliance, especially in the emerging private sector (Table A30). As fiscal pressures ruled out large current social security deficits, the authorities had no choice but to allow the real value of pensions to erode: in 1999, the average monthly pension stood at the equivalent of US$35, having declined 60 percent in real terms during the decade. Regarding health, the budgetary costs of the universal health care system were quite low by international standards (Figure 1). This low level was reflected in lack of investment in the sector, contributing to a decline in the quality of services. Moreover, the universal and nominally free system was in practice quite costly to patients as side payments were commonly required. Besides having to deal with the pressing current problems, the authorities were also facing adverse long-term demographic trends which in the absence of major reforms would jeopardize the sustainability of the social insurance schemes (Figure 2).

2. **The pension and health systems had also become nontransparent and overly complex.** In the second half of the 1990s, Bulgaria's social insurance had evolved into a nontransparent system with substantial cross-subsidies and a highly arbitrary and distorted incidence of costs and benefits. Thus, pensions received differed widely among people with equal length of service and lifetime contributions, and periodic ad-hoc adjustments to the level of pensions became the key determinant of their real value. The availability and quality of health care varied with the patient's employer, location, and ability to provide side-payments.

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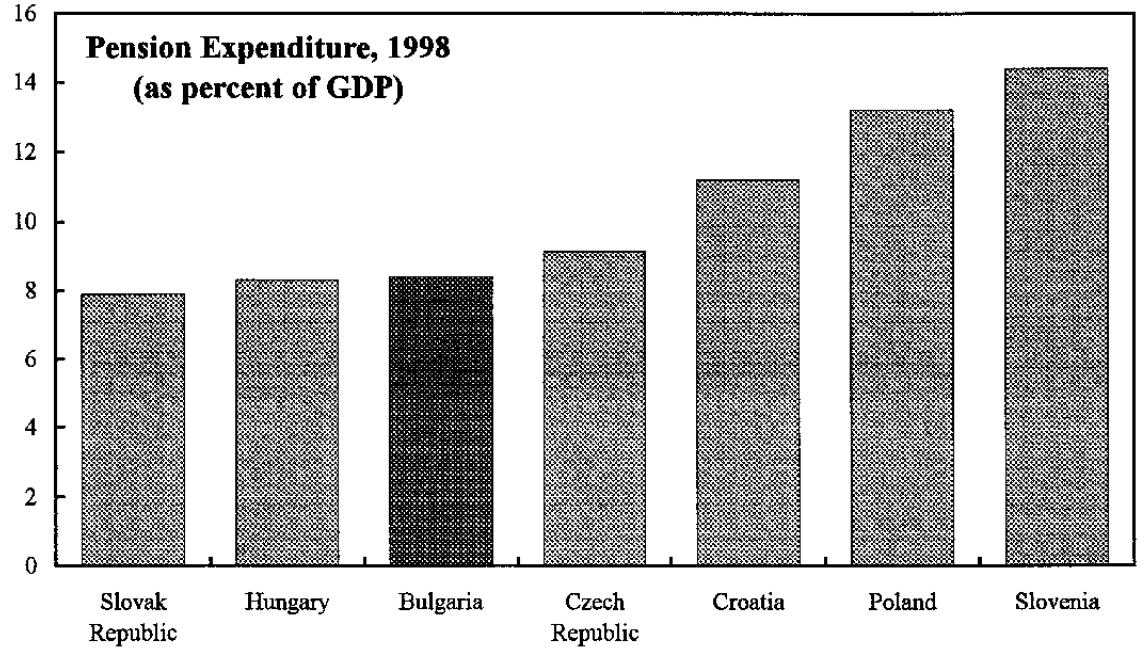
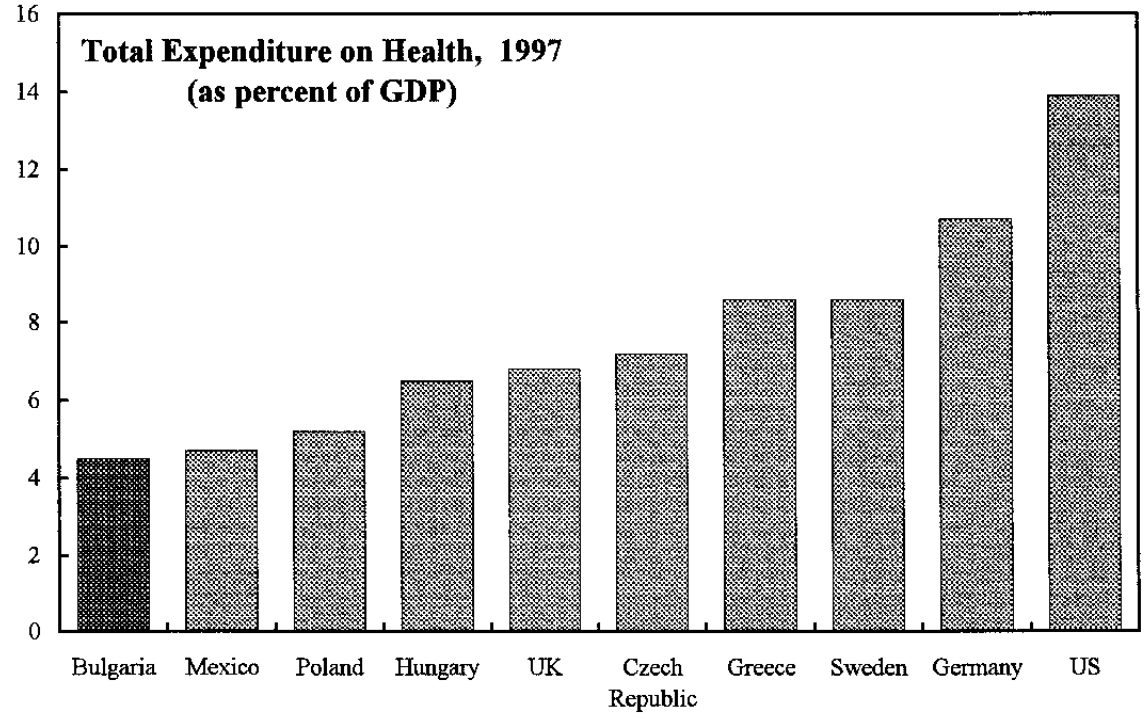
[1] Prepared by Balázs Horváth.

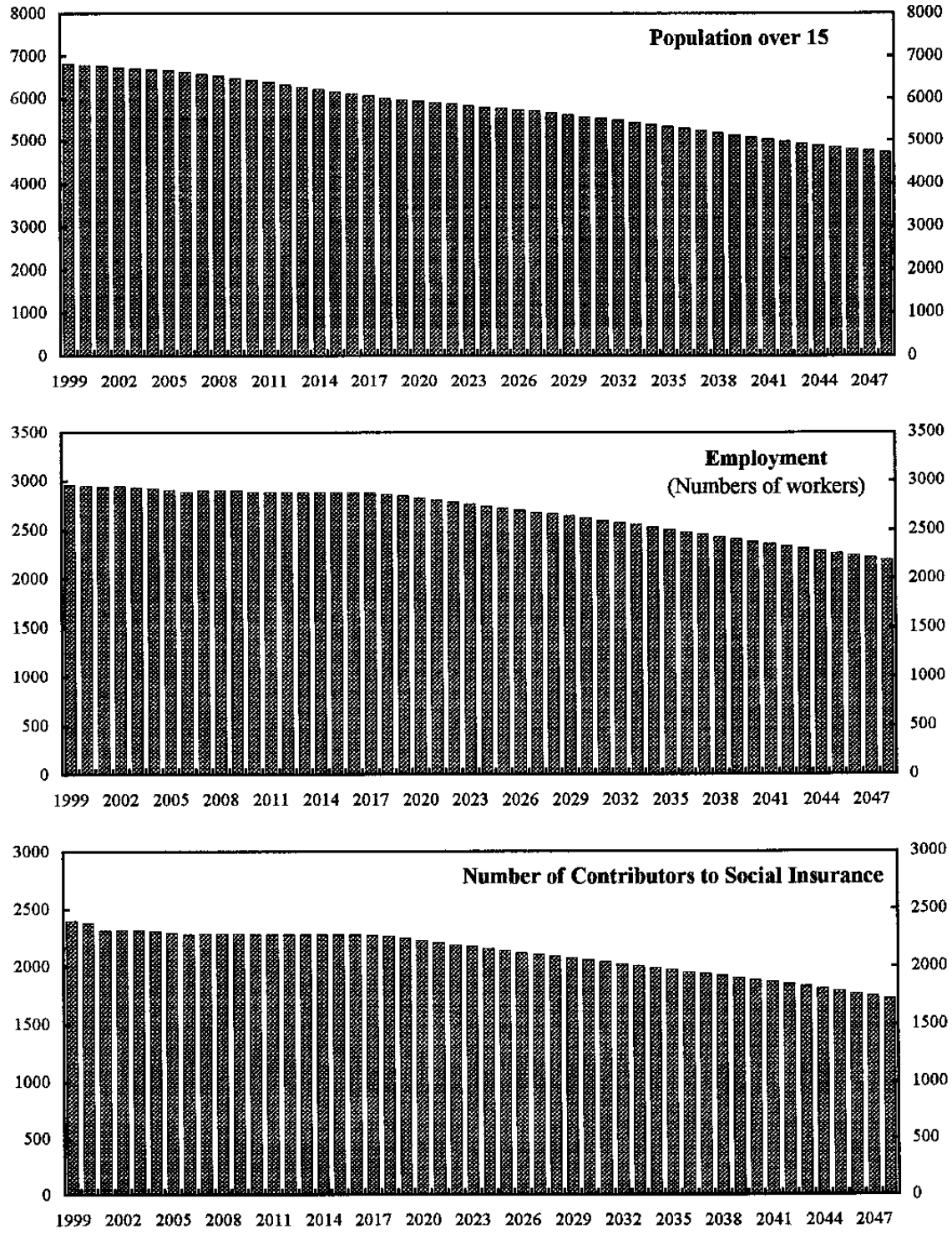
Figure 1. Bulgaria: International Comparisons





Source: National authorities.

Figure 2. Bulgaria: Long-Term Forecasts of the National Social Security Institute
(In thousands)



Source: NSSI, long-term projection model.

3. **Ambitious pension and health reforms were launched in 1999–2000 to restore sustainability and improve efficiency.** The pension reform launched from January 1, 2000 aims to restore the long-term viability of the traditional PAYG pension scheme through a significant reduction in entitlements and complementing it with fully-funded components. However, owing to the substantial stock of unfunded pension liabilities, the system will incur losses for some time, as the funded components are built up. The health reform seeks to gradually put in place a mix of private and public providers to deliver health care in a more efficient and equitable manner, albeit at a higher explicit cost to individuals. The new health system is anchored by the Health Insurance Fund (HIF) created in mid-1999 which is envisaged to become an efficient financing and management agency, contracting out health care provision to competing agencies and controlling costs. Health reform will also involve up-front costs to cover institutional capacity building and restoring the long-neglected capital stock.

4. **A number of important challenges remain.** The blueprint for both reforms is sound, but effective and timely implementation is crucial for the envisaged benefits to materialize. To allow for much-needed additional spending, these reforms should be complemented by improvements in the efficiency of revenue collection. The recent decision by the government to establish a Unified Revenue Agency to collect taxes and social insurance contributions holds the promise of achieving this objective. On pensions, the administrative and regulatory framework for the funded pillars needs to be finalized rapidly, and reducing the transitory costs of reform should be considered by shortening the transition period to the higher retirement ages of 60 for women and 63 for men. As for health care reform, a solution needs to be found for financing hospital care while avoiding a sharp increase in health care costs, and efforts are needed to support the emergence of supplementary health insurance.

5. **This study discusses the characteristics of the old pension and health systems, as well as the reform packages.** First, it describes the pension system at the end of the 1990s, the reform measures and their fiscal impact, concluding with an overview of key remaining problems. Second, it discusses the health system and its reform in a similar fashion. Third, it provides a comprehensive assessment of the Bulgarian authorities' policy response to the deep-seated problems in the health and pension sectors.

B. Pension Reform

The old pension system

6. **In the 50 years from 1949, pensions in Bulgaria were provided through a traditional defined-benefit PAYG system**. The NSSI-administered PAYG system covered all employees in the public and private sector as well as the self-employed. It was financed by payroll contributions and transfers from the republican budget to cover social assistance programs carried out on behalf of the government, and expenditures not covered by the NSSI's own revenues. The weighted average pension contribution rate, at 42 percent in 1998, was quite high compared with other countries. The retirement age was 60 for men and 55 for

women, and workers also had to satisfy specific length-of-service requirements to qualify for old-age pension. Since April 1996, benefits were calculated by multiplying the ratio of the individual's wage to the average wage, a length-of-service factor, and the average wage in the economy over the preceding three years. However, the formula was temporarily abandoned from 1997 because the resulting benefit levels could not have been afforded. Social pensions of 65 percent of the minimum wage were paid to individuals above age 70 who did not have any other pension. The minimum pension was 90 percent of the social pension, while the maximum was three times the social pension. Survivors' benefits were available to children and to widows if they were dependent on the worker and over age 50 (60 for men), disabled, or caring for a child under age 16.

7. **The parameters of the PAYG system were increasingly out of line with demographic and macroeconomic reality.** The retirement age was among the lowest in Europe and proved unsustainable in light of the revenues available. A large number of special privileges added further strains to the system. In particular, special category workers (category I and II labor) could retire early, with their employers paying pension contributions at a higher rate (52 percent for category I and 49 percent for category II workers, compared to 37 percent for category III workers).[2] On average in 1998, retiring category I men had clocked up10 years less working time than their category III counterparts (the average difference for women was 5.8 years). The relative share of special category workers has ballooned over time, and by 1998, categories I and II represented 16 percent of pensioners and 22 percent of pensions paid. The eligibility for early retirement was sharply curtailed at the beginning of 1999, reducing the share of category I and II contributors including the military to around 5 percent of all contributors. On the benefit side, the level of pensions provided were extremely low, and had little relationship with the amount of lifetime contributions, especially following the 1996 change in the benefit formula which was designed to counter the effects of high inflation.

8. **Bulgaria experienced adverse demographic developments during the past decade.** During the 1990s, a significant wave of emigration resulted in negative population growth, while life expectancy stagnated (Figure 3). The age structure of the population by the late 1990s resembled that in western European countries, with a considerably lower share of young people than in most other transition economies (Figure 4). The ratio of people in pensionable age approached a quarter of the population, and by 1998 pensioners accounted for around 29 percent of the population and 80 percent of those with social security insurance (Table 1).

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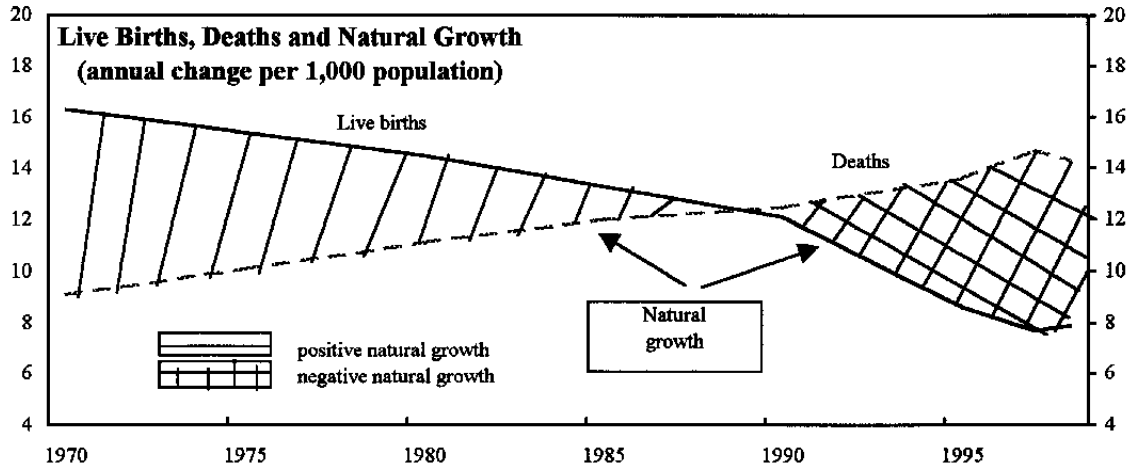
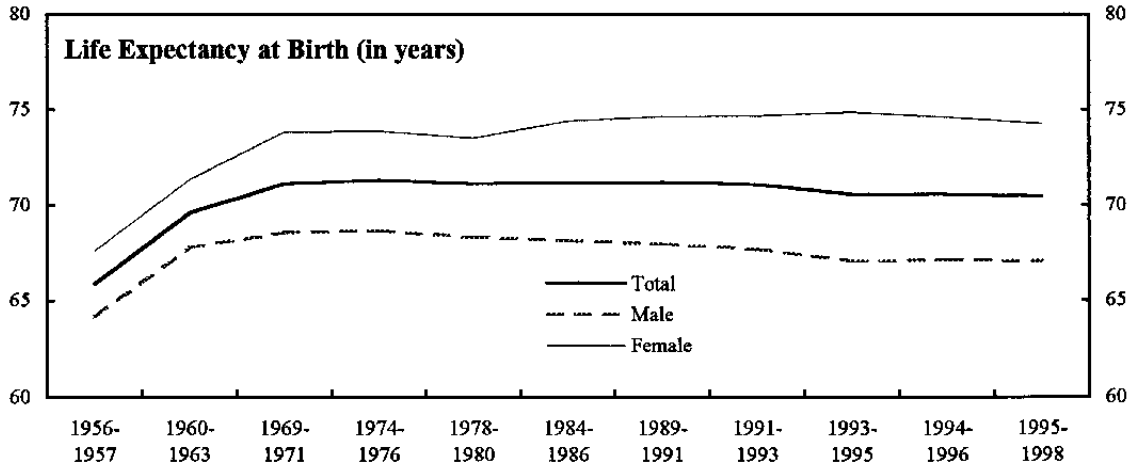
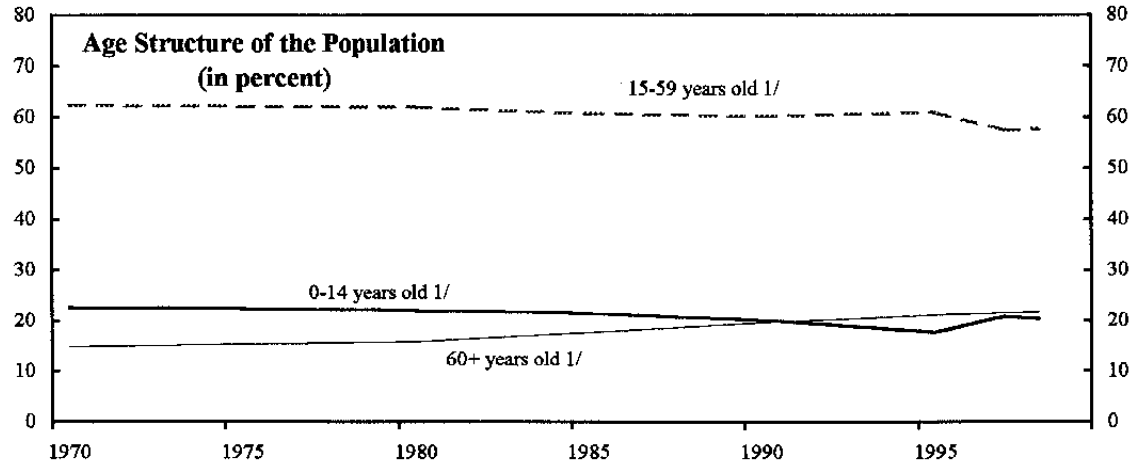
[2] Special category workers were those who worked in occupations deemed especially strenuous or dangerous, including miners, sailors, and workers in the armed services and the police.

Figure 3. Bulgaria: Population Dynamics and Life Expectancy

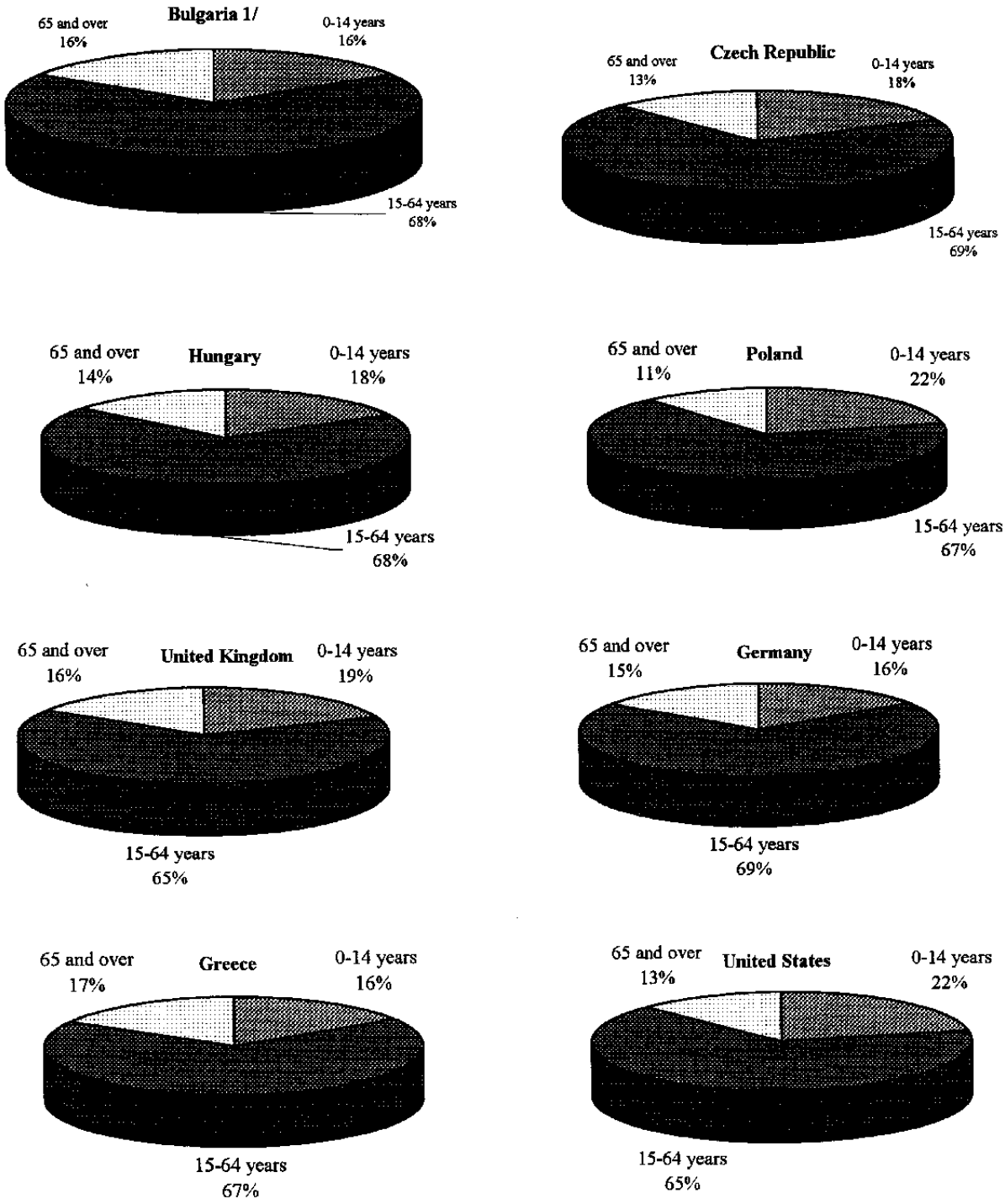






Source: Public Health Statistics Yearbook, Sofia, 1999.
1/ As of 1996, the age groups are: 0-17, 18-59, and 60+.

Figure 4. Bulgaria: International Comparison of the Age Structure of the Population, 1997



Source: OECD Health Database, and Bulgarian National Statistical Institute.

1/ Data for Bulgaria refer to 1998.

Table 1. Bulgaria: Pension Indicators

Annual Averages, in thousands

	1993	1994	1995	1996	1997	1998	1999
Population	8,472	8,444	8,406	8,363	8,312	8,257	8,211
People in pensionable age 1/	2,017	2,030	2,038	2,040	2,037	2,031	2,026
Employment	3,222	3,242	3,282	3,286	3,157	3,168	2,811
Number of insured persons	3,030	2,940	3,092	3,114	3,210	3,084	2,863
Number pensions	2,492	2,481	2,465	2,442	2,433	2,436	2,430
Number of pensioners	2,442	2,432	2,417	2,395	2,387	2,390	2,384
			in percent				
People in pensionable age/population	23.8	24.0	24.2	24.4	24.5	24.6	24.7
Number of pensioners/number of pensions	98.0	98.0	98.1	98.1	98.1	98.1	98.1
Number of pensioners/population	28.8	28.8	28.7	28.6	28.7	28.9	29.0
Number of pensioners/employed	75.8	75.0	73.6	72.9	75.6	75.4	84.8
Number of pensions/insured people	82.2	84.4	79.7	78.4	75.8	79.0	84.8

1/ Women 55 and over; men 60 and over

Source: National Social Security Institute, 1998 Pension yearbook and staff calculations.

9. **The collection of social insurance revenue was hampered by adverse incentives, a shrinking revenue base, and weaknesses in social security administration.** The adverse incentives stemmed from high total social contribution rates (47 percent for the median employee, and up to 61 percent for some employees), widely varying pension contribution rates (from 22 percent for the self-employed to 47 percent for some groups), and a weak link between contributions and benefits. The reduction in the contribution base in part reflected the transformation of the economy: cuts in budgetary employment and the privatization and restructuring of state enterprises shrank the NSSI's traditional contribution base. However, the emergence of social insurance arrears and very weak collections from the private sector (which toward the end of the 1990s accounted for around 60 percent of economic activity, yet only contributed around 10 percent of social insurance revenues) indicate that evasion was common and enforcement lacking. All in all, social insurance revenue fell from the pre-transition level of 11 percent of GDP to a low point of 7 percent of GDP in 1996–7.

10. **A surge in early retirement and disability pensions further eroded the pension system's long-term viability.** The onset of the transition in Bulgaria brought a sharp increase in early retirement (Figure 5). On the one hand, this contributed to alleviating social tensions and improving the finances of the state enterprise sector by helping to reduce overstaffing while keeping measured unemployment in check.[3] However, it lowered the average effective retirement age to just 56 years in 1998, imposing substantial costs in terms of unfunded pension liabilities. Several factors accounted for the surge in early retirement, including the mushrooming of early retirement schemes (in 1998, there were 11 different instances of laws and regulations giving rise to early retirement rights); the low opportunity cost of retiring (retirees continued to receive their pensions if they worked); and weaknesses in the control and enforcement of pension rights. In 1998, about a third of all new pensioners retired early, and one out of every four pensioners was an early retiree. The early retirement schemes reduced the number of social insurance contributors, further worsening the dependency ratios and contributing to the deterioration in the replacement ratio.[4] A similar issue arose on a smaller scale in disability pensions: the number of people receiving disability pensions increased sharply in the mid-1990s (Figure 6).

11. **The lack of indexation helped to keep pension expenditure under some control.** While the indexation of pensions has been a major reason for rapidly increasing pension expenditures in a number of other transition countries, in Bulgaria formal indexation has not been in use even at the time of high inflation. Instead, the Council of Ministers has issued decrees to implement adjustments to nominal pensions. These decrees came monthly in February 1997 at the height of hyperinflation, with the intervals becoming longer (semiannual from 1998) as inflation was brought under control. This system enabled the authorities to limit pension expenditures to financeable levels (under 10 percent of GDP throughout the 1990s).

12. **However, the real value of pensions eroded, creating social and political pressures for reform.** In 1999, the average monthly pension stood at the equivalent of US$35, having declined 60 percent in real terms during the decade. As pensions were typically the only source of old-age income, this erosion created strong social and political pressures for pension expenditures and highlighted the long-term need for funded components in the pension system.

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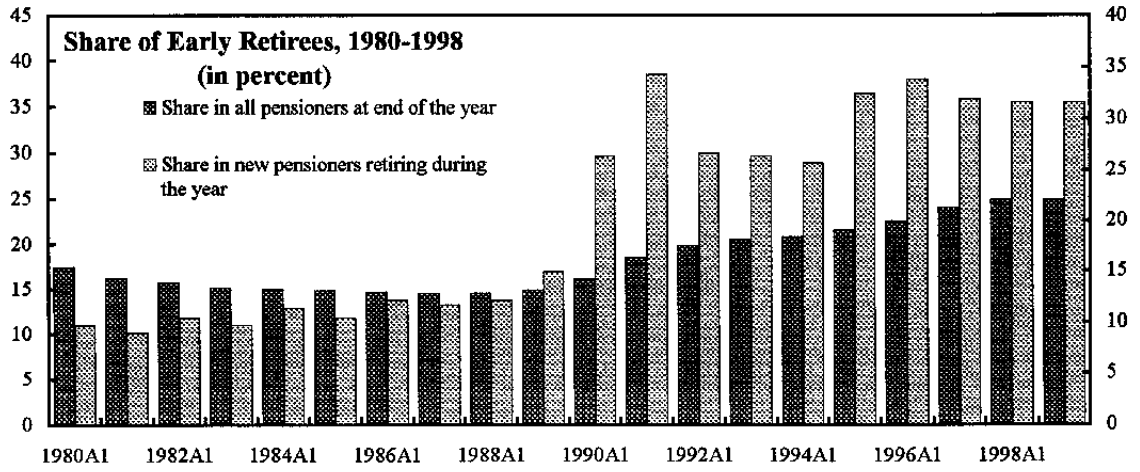
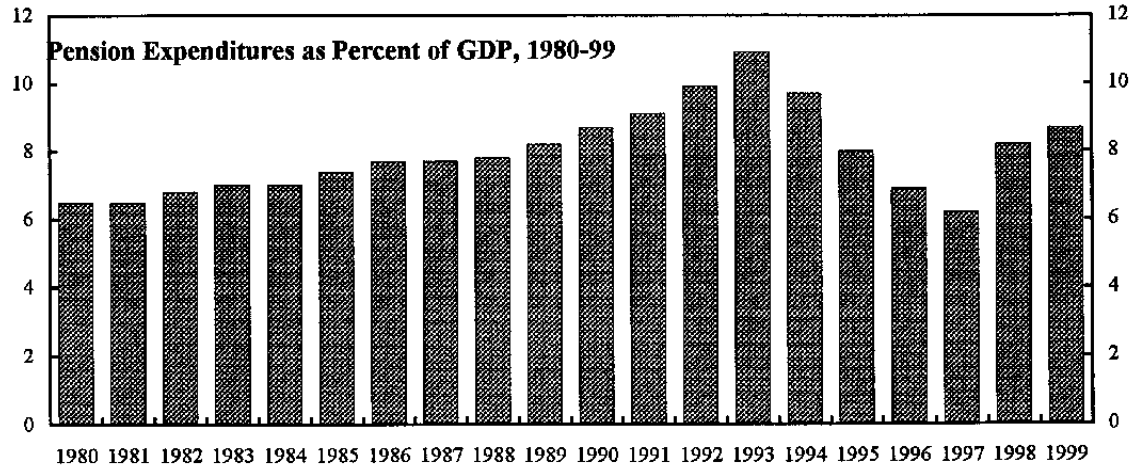
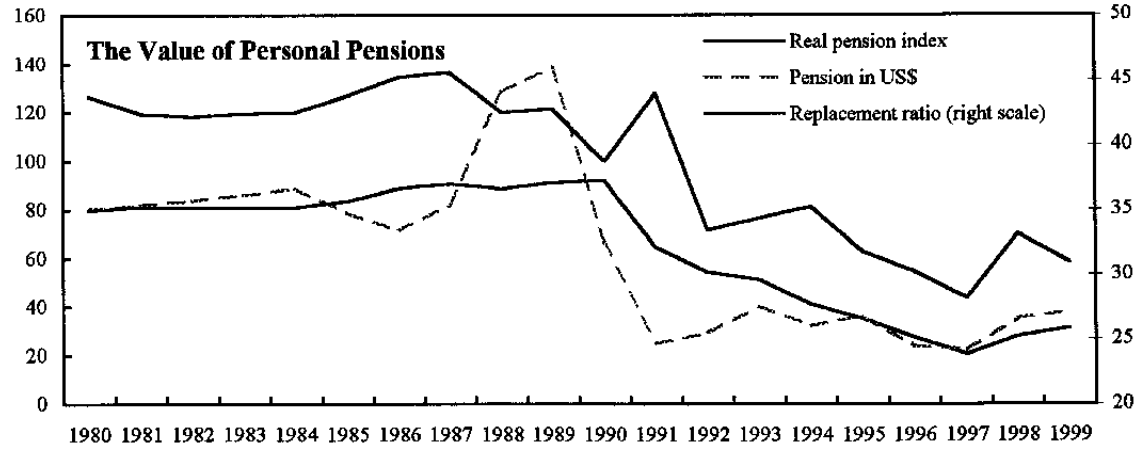
[3] This use of the pension system as a tool of social policy has been quite common in transition economies.

[4] The replacement ratio grew steadily during the pre-transition era. In 1975 the average pension amounted to 33.3 percent of the average wage; in 1980 the replacement ratio grew to 37.4 percent, and in 1985 to 43.8 percent, remaining around that level through 1989.

Figure 5. Bulgaria: Indicators of the Pension System

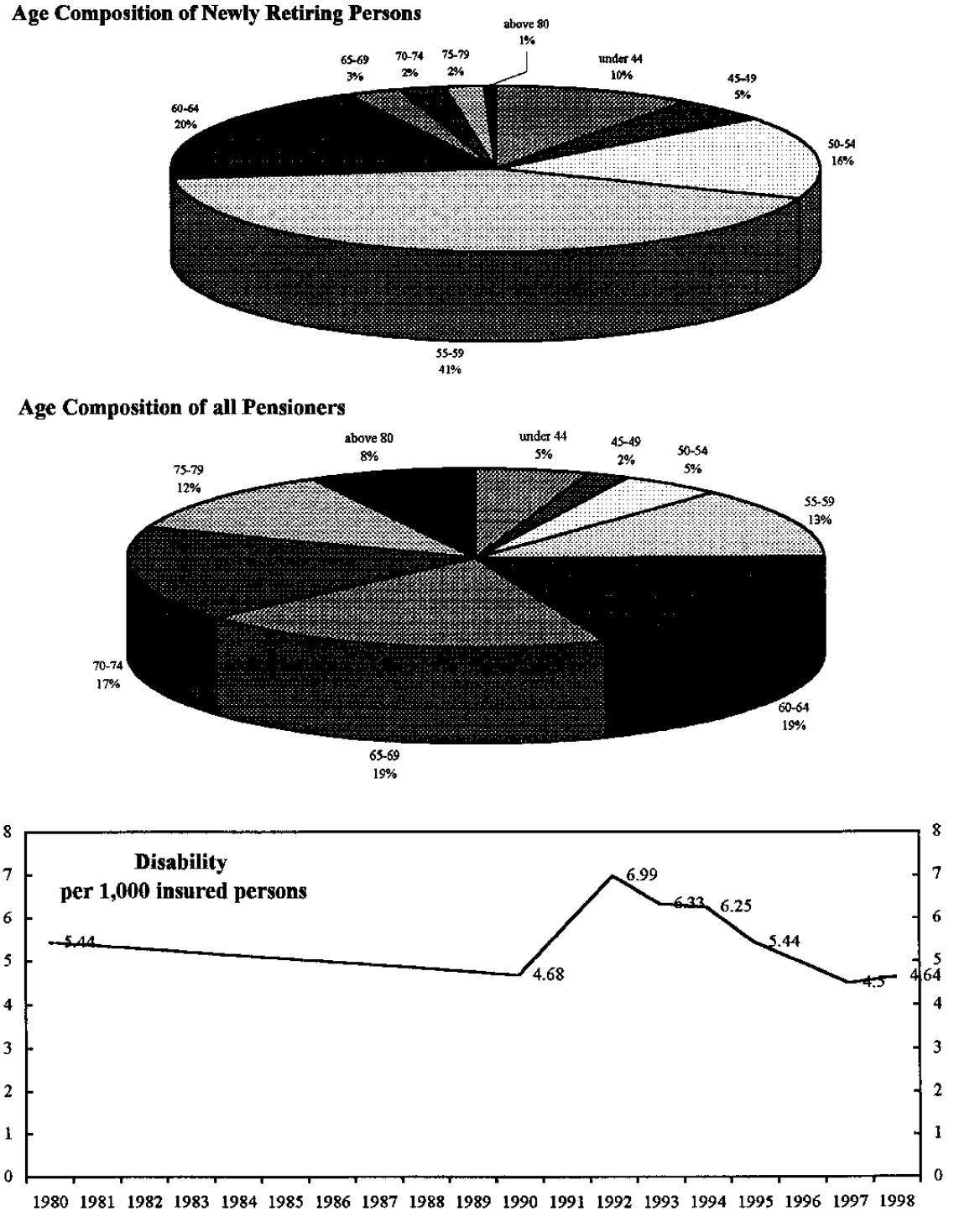






Source: NSSI; Pension Yearbook, 1998; and Fund staff estimates.

Figure 6. Bulgaria: Age Composition of Pensioners, 1998



Source: NSSI; Pension Yearbook, 1998; Public Health Statistics Yearbook, 1998; and Fund staff calculations.

Pension reform

13. **The authorities' policy response to the accumulated problems of the old pension system was a decision to create a modern three-pillar pension system.** The new pension system was launched from the beginning of 2000, following extensive preparatory work and a public awareness campaign. The new system being put in place is a modern three-pillar system, consisting of a strengthened version of the existing PAYG system (first pillar) and two fully funded pillars (a mandatory public pillar for new entrants, and a voluntary private one).[5] The legislative basis for strengthening the first pillar (the Social Insurance Code) was adopted by parliament last year, and phased implementation started from the beginning of 2000. The universal second pillar will be launched in 2002, and preparations have already started. The legislative basis for the third pillar was adopted last year, paving the way for the creation of voluntary defined-contribution funds. Box 1 provides explanations of the concepts and terminology associated with the reform.

14. **The pension reform involves a significant strengthening of the existing PAYG system.** Key changes include substantially reducing early retirement categories, raising the retirement age (although parliament decided not to raise the regular and early retirement ages to the extent originally envisaged), and establishing a link between contributions and benefits. The reforms will lower the dependency ratio through a 6-month increase in the retirement age every year until it reaches 60 for women and 63 for men. The base for determining pension benefits now depends on the total length of contributing service and the actual amount of contributions paid, significantly improving the incentives to contribute on actual labor income. Moreover, the scope of early retirement for special groups has been further narrowed.[6] Early retirement has been made available on a universal basis, provided the sum of contributing years and age—referred to as points—exceeds certain thresholds (98 points for men and 88 points for women this year).[7] Pensions will be increased every year starting from July 1, 2001 based on a backward-looking "Swiss formula" depending on the previous year's increase in social insurance revenues and the consumer price index, but will be limited to under four times the minimum old-age pension through end-2003. Also, from

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[5] Similar reformed multipillar pension schemes exist today in Argentina, Australia, Colombia, Chile, Denmark, El Salvador, Hungary, Kazakstan, Mexico, the Netherlands, Peru, Poland, Slovenia, Sweden, Switzerland, UK, and Uruguay.

[6] Military personnel will continue to retire after 25 years of service, and three (four) years of service in work category I (II) shall be counted as 5 years of pensionable service. Part of the social contributions for these workers is allocated to build up additional funded pension rights, together with those in occupational retirement schemes (e.g. teachers).

[7] The required number of points will increase by 1 a year until reaching 100 for men and 90 for women.

the beginning of 2002, those born after January 1, 1960 will be obliged to participate in universal and/or professional pension funds, established and managed by licensed pension insurance companies.

Box 1. Bulgarian Pension Reform: Technical Definitions

Indicators of demographic pressure

Old-age dependency ratio: the number of people over 64 divided by total population
Total dependency ratio: the number of people under 15 and over 64 divided by total population
System dependency ratio: the number of pensioners divided by the number of contributors

Categorization of pension schemes by source of financing

Pay-as-you-go (PAYG) pension schemes – such as the pre-reform pension system in Bulgaria – finance pension payments from current payroll taxes
Funded pension schemes finance current pension obligations using returns from accumulated assets

Categorization of pension schemes by benefit payment formula

Defined benefit plans (for PAYG or partially funded schemes) define benefits received based on work or contribution history and realized returns on invested funds
Defined contribution plans (for fully funded schemes) pay benefits—typically, an annuity—depending on returns earned on lifetime contributions

The three pillars of the reformed Bulgarian pension system from January 1, 2000

Pillar I: existing PAYG scheme with modified parameters and almost unified contribution rates
Pillar II: now encompasses occupational and special category contributors only; from 2002 onward, envisaged to be a universal, mandatory, privately managed, and defined contribution scheme
Pillar III: a new voluntary, private, defined contribution pension scheme

15. **The reform includes substantial institution building.** It created two funded pillars, one of which (the second pillar) at present remains restricted to certain professions and will only become universal from the beginning of 2002. A regulatory framework was created through the secondary legislation related to pillar III, stipulating the rules for setting up and managing universal or professional pension funds, formulating investment restrictions, the supervisory framework, the required management structure, and the minimum number of subscribers necessary for operation. In addition, the NSSI has been implementing a comprehensive social insurance administration modernization project with World Bank assistance. This project is aimed at improving financial monitoring and enforcement through enhanced information technology and institutional capacity building. The implementation of

this project is proceeding on track, and major advances have been made in computerization, the tracking of revenue and expenditure flows, and in audit and enforcement procedures.

16. **The reform involves compromises to limit up-front costs, but has beneficial effect on savings and factor markets.** While the original plan foresaw uniform contribution rates in the reformed PAYG pillar, employers of special category workers are now required to pay 3 extra percentage points to the first pillar to limit the decline in revenues, while the original excess in the contributions paid on their behalf (12 percent for category I and 7 percent for category II labor) has been assigned to individual funded accounts in pillar II. Further transitory costs will depend on the take-up rate of the third pillar, and of the universal second pillar from 2002. This may further reduce the contributions to the first pillar, in part through evasion. On the upside, the new system may have other positive effects, including improved domestic savings (Box 2).

Box 2. The positive impact of pension reforms

Pension reforms can promote of domestic savings, thus boosting investment and growth. While the increase in domestic savings is difficult to estimate and tends to materialize over a longer period of time, several studies (e.g., IMF Occasional Paper #153) confirm that well-designed pension reforms can significantly boost domestic savings via two main channels:

- Alleviating the cashflow imbalances of the PAYG component through a reduction in the replacement ratio raises public savings, with typically only a partial Ricardian offset on private savings.

- Adding a funded component to the pension system enhances contribution compliance and has a positive net effect on private savings in the long run. This can be offset in part by the deficit of the PAYG component opened up during the transition phase, making transition rules governing the reallocation of contributions among the pillars of the pension system critically important.

Pension reforms also hold the promise of improving the efficiency of labor and capital markets. The high social contribution rates distort the labor market by raising the cost of labor. Since phasing in funded components of the pension system leads to the replacement of a distortive tax by saving explicitly linked to income level in retirement, labor costs for the employer will decline, boosting employment. As for capital markets, the rapidly growing funds seeking profitable investment opportunities are likely to foster the widening and deepening of financial markets.

Fiscal impact of pension reform

17. **The pension reform turned part of the accumulated unfunded pension liabilities into explicit debt.** The need to find resources to pay existing obligations while not using up all current contributions constrains the speed of moving toward a funded system and limits the scope for reducing the high social contribution rates. While the actual fiscal impact of the complex reforms now set in motion can only be projected with a significant margin of error,

these considerations underline the crucial importance of being prepared to adjust parameters of the pension system, and of persevering with efforts to substantially broaden the social contribution base.

18. **The method of financing additional costs associated with the pension reform determines how the burden is shared by current and future working generations.** If the additional costs are covered by the current general government budget, the working generation has to both finance the pensions of retirees and set aside funds for its own retirement. To the extent that pension reform leads to a deficit financed through additional borrowing, or by privatization receipts, the burden is either placed on future generations in the form of additional debt or borne in the form of reducing the asset holdings of the state. Bulgaria used a combination of these financing methods, spreading the burden among generations.

19. **While the strengthened PAYG system is designed to be sustainable over the long run, there will be initial deficits.** Since the working population must finance the ongoing costs of the PAYG scheme while also contributing to accumulate savings to fund their own future retirement, the overhaul of the pension system comes at the price of up-front revenue losses for pillar I. This reflects the transition problem encountered by all pension reforms which phase in funded components while maintaining a PAYG scheme. However, this impact will be more than offset over time by lower expenditure as the tighter retirement parameters (higher retirement age and reduced scope for early retirement) take effect.

20. **This is demonstrated by the results of calculations using the NSSI model of the PAYG component based on an extensive set of detailed demographic and macroeconomic assumptions.** This annual model was utilized during the design stage of pension reform in Bulgaria.[8] The calculations presented are based on a set of assumptions and the version of the model dating from December 1999. The results of quantitative calculations strongly support the case for pension reform. Hypothetical NSSI deficit estimates resulting from continued operation of the old system are compared with the PAYG component of the new three-pillar system over a horizon of 50 years. To facilitate the comparison, the underlying assumptions on demographic and macroeconomic developments, as well as on the discount factor and the costs of financing the cumulative deficits are identical in the two scenarios.[9] Table 2 presents the summary results for the first pillar, comparing the long-term discounted sum of the deficits under the old and the new systems as a percentage of 1999 GDP. Figure 7 presents the evolution of the deficits over time,

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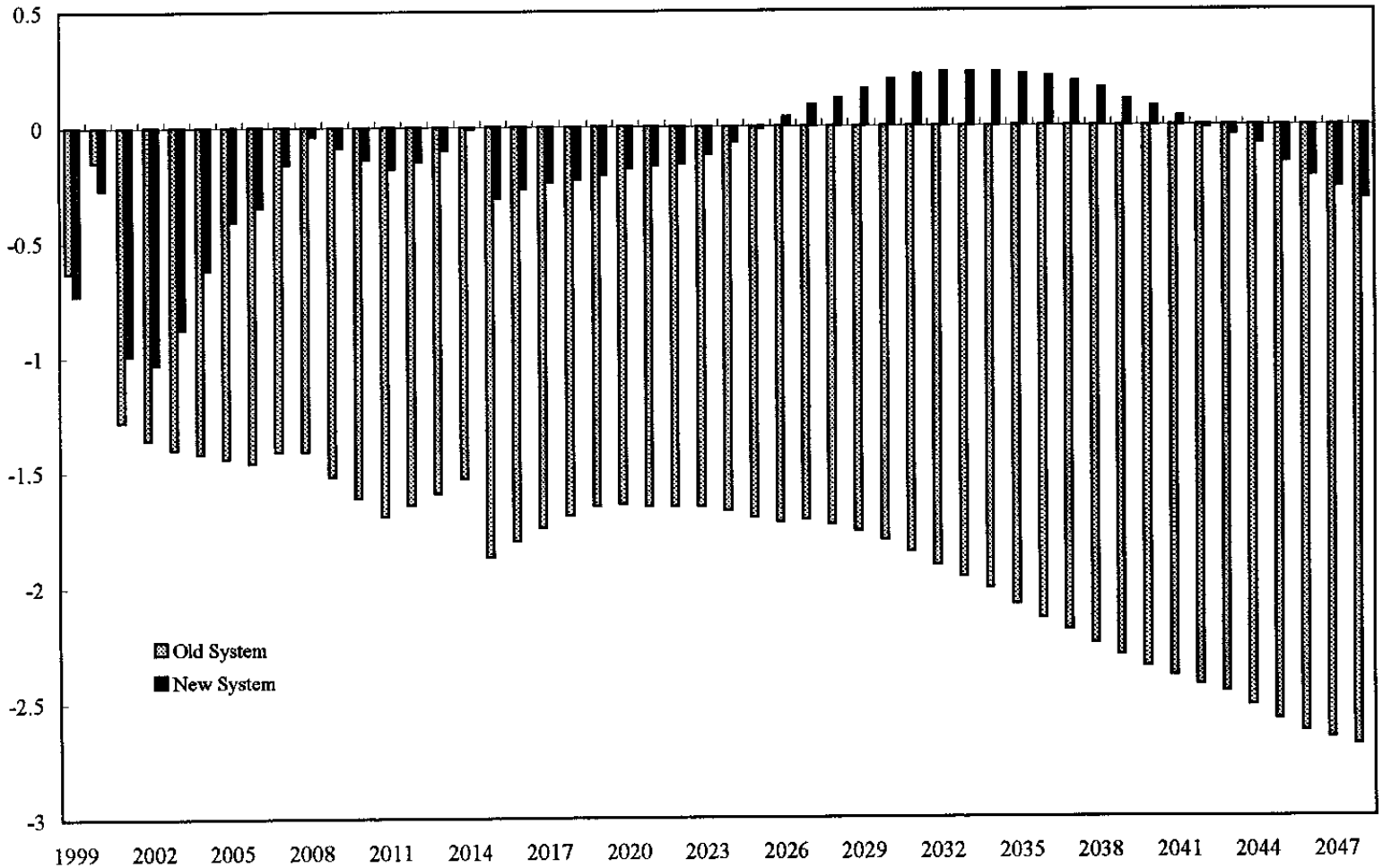
[8] The model was designed and calibrated by John Wilkins, working with NSSI experts and members of the Pension Reform Group. The calculations were performed by Gabriella Stoyanova of the Agency of Economic and Analysis and Forecasting.

[9] For simplicity, 3 percent inflation and 2 percent real discount rate per annum was assumed; financing costs were set at 5 percent per annum through 2048.

Figure 7. Bulgaria: Projected Deficits of Pillar I With and Without Reform
(In percent of GDP)



Source: NSSI, long-term projection model.

demonstrating that up-front costs are substantial, but declining, and that pillar I can attain a surplus from the mid-2020s. Both convey a very convincing message: (i) in the absence of reforms, the cumulative deficits would have rapidly placed an unsustainable burden on the budget, and (ii) the reforms eliminate the bulk of the deficits. While no projection was performed to quantify the projected effect of the Unified Revenue Agency, the deficits remaining under the new system appear sufficiently small to be within the range that can be eliminated through improved revenue collection or modified eligibility or indexation rules. It is important to note that while the precise quantitative results are quite sensitive to the underlying assumptions, the firm conclusion that the reformed pension system is a distinct and substantial improvement remains valid for a wide range of assumptions.

Table 2. Bulgaria: Net Present Value of Cumulative Deficits as Percent of 1999 GDP

	Old System	New System
Without Financing Costs	70	7
With Financing Costs	160	24

Source: NSSI model

Key remaining issues

21. **Despite good progress, continued efforts are needed to ensure the long-run viability of the PAYG system.** The various steps of the reform should be implemented effectively and in a timely manner, and complemented by a combination of enhanced revenue collection and further restrictions on entitlements (including a reduction in the length of the decade-long transition period) to eliminate the remaining cumulative deficit of the first pillar. Improvements in revenue collection can be achieved not only through the implementation of the Unified Revenue Agency abut also through improved tax policy design. In particular, consideration should be given to correcting the existing distortion in favor of the self-employed and those working without a formal labor contract (e.g., consultants and other service providers). Participants in this group of contributors can choose their contribution base, the type of social risks they want to insure against, and are entitled to a lower contribution rate. The ranks of these contributors are swelling rapidly, and most of them declare income to the NSSI at or under the legal floor of two minimum wages, with nothing in the pension reform obliging them to change their behavior. As a result, the private sector which accounts for the bulk of the employment in the economy pays just a tenth of all social contributions. This precludes a substantial reduction in the high contribution rates for those formally employed with a labor contract, which is distortive for the labor market and has a deleterious effect on incentives to contribute.

22. **Much work is also ahead to get the funded components of the pension system off the ground.** The key future tasks in the implementation of the second and third pillars include the following:

- The government needs to strengthen its supervisory and regulatory capacity and put in place a system to record the contributions for the pension system as well as strong safeguards to ensure that an independent depository holds the accumulated assets.

- To ensure the efficiency of supervisory and regulatory activity, accounting, reporting, and other rules must be clear and strictly enforced.

- If government guarantees are provided for the various pillars of the pension system, they need to be explicit, and designed in a manner that minimizes moral hazard and adverse selection of participants.

- The investment restrictions on voluntary private pension funds (pillar III) severely constrain their earning capacity. Thus, they will need to be reviewed and substantially eased, in line with improvements in pension fund supervision.

- Operating costs of funded schemes must be minimized, including through centralized collection of second and third pillar contributions. Competition, restrictions on investments, and rules on opting in and out of the funded pillars will affect these costs. Administrative costs can also seriously dent the returns to such schemes.[10]

- Public support needs to be maintained by collaborating with social partners, providing information on a timely basis, and implementing reform at a steady pace.

- A reform of life insurance regulation is needed to determine the role of the state in this area, including the rules and incentives for providing the annuity portion of old age pensions, and of survivors' and disability benefits.

C. Reform of the Health Care System

The old health care system

23. **The Bulgarian health system inherited from the past was a highly centralized and entirely budget-financed system which used resources increasingly inefficiently.** The system was based on centralized public provision of health care which was financed from general budget revenues. It was heavily biased toward hospital care, with an oversupply of hospital beds but limited resources available for basic and preventive care (Figure 8).

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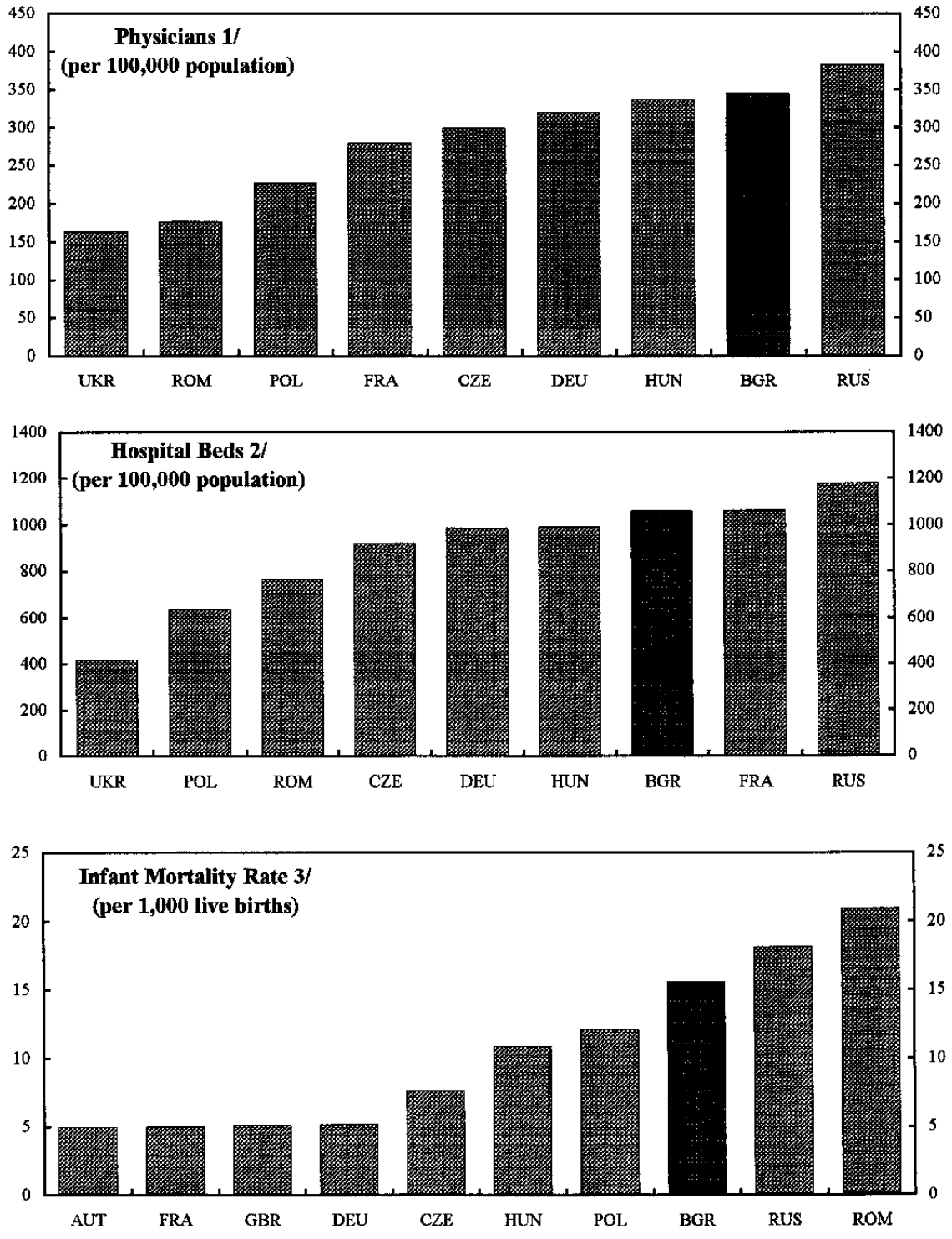
[10] Administrative costs of funded schemes can be a significant problem, especially in the accumulation phase. Murthi, Orszag, and Orszag (1999) calculated that in the decentralized U.K. system up to 40 percent of the value of an individual retirement account could be dissipated through market transaction fees and charges.

Figure 8. Bulgaria: International Comparisons of Health Indicators, 1995



Source:

1/ DEU, FRA and UKR data refer to 1993; HUN and POL to1994.

2/ DEU and UKR data refer to 1992; POL, 1993; HUN and ROM, to 1994.

3/ Data refer to 1996.

Although this system helped to improve public health indicators during the 1960s and 1970s, it lacked the flexibility to respond to an increase in the incidence of chronic diseases since the mid-1980s. Moreover, it was not able to reduce infant mortality rates to levels prevalent in developed nations or in the leading transition countries. The system also failed to provide appropriate incentives for health care providers to improve their services and for the population to adopt a healthier lifestyle. Finally, it could not adjust in an orderly manner to the substantial reduction in real resources devoted to health care during the transition period. Consequently, despite the professional integrity of most health care providers, its guarantee of free and accessible healthcare for all citizens rang increasingly hollow. The health care infrastructure deteriorated, the quality of care declined, and significant side-payments became the norm.

24. **Limited reforms in the 1990s aimed primarily at decentralizing health care provision could not arrest the deteriorating trend.** Reform measures through 1998 included allowing the provision of private health services, establishing medical associations, privatizing most pharmacies, and devolving the responsibility for selected health care services to municipalities.[11] These measures led to a marginal reduction in the number of medical personnel per 10,000 people (Figure 9). However, they could not prevent the emergence of a compartmentalized infrastructure where quality health care was mainly available in the parallel systems maintained and separately financed by ministries.[12] Coordination between the parallel systems, as well as between the central government and municipalities, was weak. The outcome was a health system that employed an inordinately high number of health care providers on a per capita basis, but failed to deliver quality health care at an affordable price to the population.[13]

Health reform

25. **Bulgaria's health reform aims at a suitable mix of market and non-market mechanisms.** While the history of health care provision and financing in Bulgaria has provided ample evidence of the inefficiencies of government-provided care, adopting pure market solutions would not be desirable either: there are externalities inherent in health care, social norms prescribe some access for at least a basic benefit package regardless of the ability to pay, and asymmetric information between the parties to a health insurance contract leads to adverse selection and moral hazard. Moreover, some rationing of health services is

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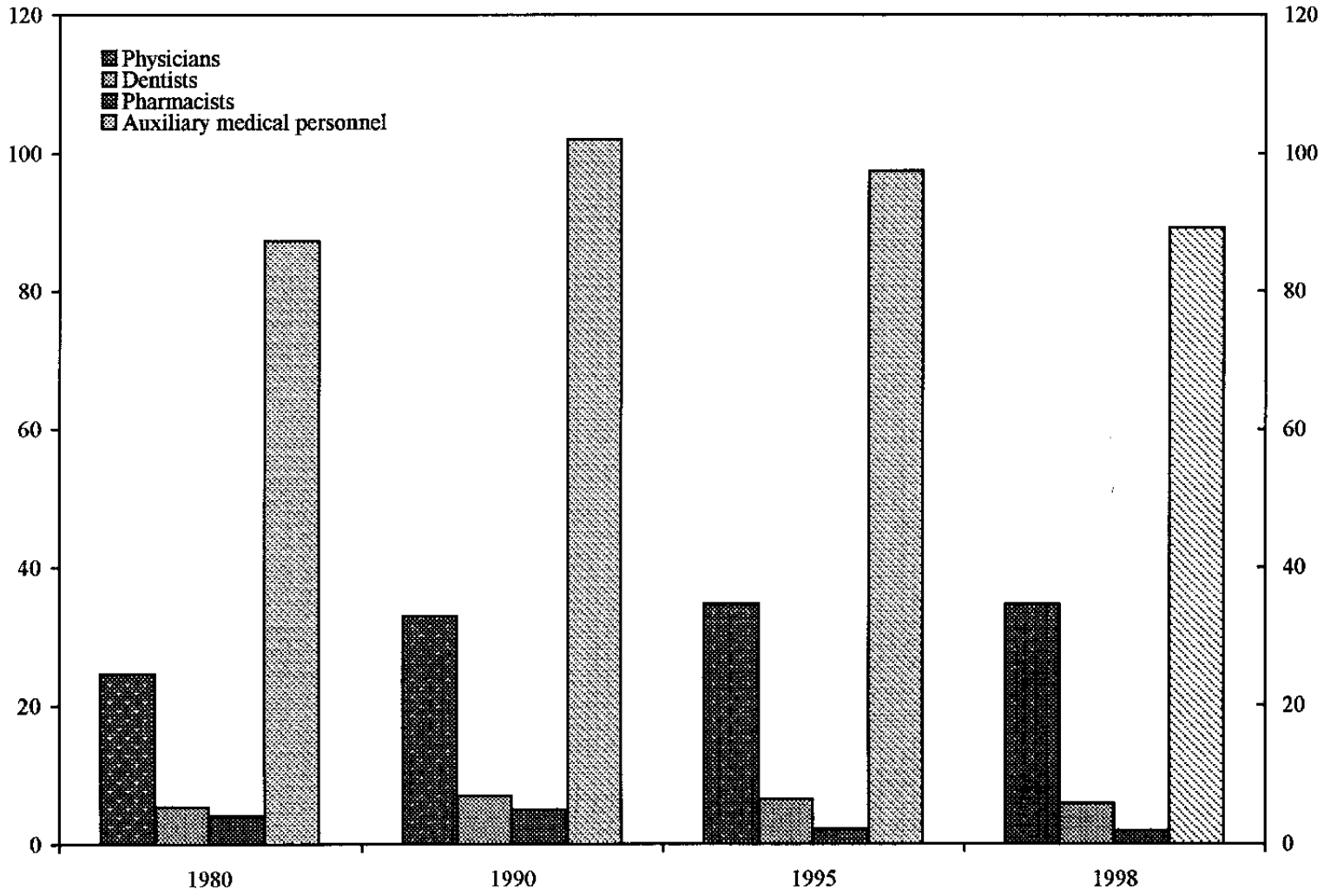
[11] In 1998, municipalities provided 55 percent of state funding to the health care system. They own and finance polyclinics, as well as some general and specialized hospitals.

[12] In 1999, the Ministries of Defense, Internal Affairs, and Transport each owned several hospitals and maintained parallel hygiene and epidemiology services.

[13] Almost two thirds of the respondents to a 1995 Ministry of Health survey on the quality of primary and secondary health care regarded it as "bad" or "very bad".

Figure 9. Bulgaria: Medical Personnel
(per 10,000 population)



Source: Public Health Statistics Yearbook 1998, Ministry of Health.

inevitable, because the highest possible standards of health care would be prohibitively expensive, i.e., the budget constraint would become binding well before the level of supply reached a saturation point. International experience also shows that well-functioning health care systems all involve a mix of market and non-market mechanisms (see Kornai,1998, for a particularly comprehensive survey).

26. **Bulgaria's health care reform comprises an overhaul of financing, a reorganization of primary health care provision, and a rationalization of hospital care.** The first element was implemented through the 1998 adoption of the Health Insurance Law which led to the creation of the Health Insurance Fund (HIF) from mid-1999. The second element is the essence of the next round of health care reforms to be launched from mid-2000, while the third part of the reform will be implemented from mid-2001. The phased implementation is in line with the objective of designing and implementing an improved system of health care provision and financing in a manner that minimizes disruptions to the existing system during the interim period. It also ties in with the phased implementation of the unified revenue agency, which was designed to ensure that the necessary revenue base will be available to finance social reforms.

27. **The Health Insurance Act fundamentally reforms the financing of health care in Bulgaria through universal compulsory insurance.** This Act created the Health Insurance Fund as a statutory insurer and bulk purchaser of health care services. The HIF is answerable to parliament which approves its annual budget. Its revenues accrue from payroll contributions presently set at 6 percent of gross wages (divided equally between the employee and the employer), and collected by the NSSI since mid-1999.[14] The HIF has 28 regional offices, and is currently building up its information technology, monitoring, audit, and health care administration capacity. By April 2000, it will have signed a national framework agreement with the representative body of primary health care providers, and will soon conclude bilateral service provision contracts with doctors prior to the launch of the new primary and specialized health care system from July 1, 2000. Hospital care, population health services (epidemiology, blood transfusion centers, etc.), expensive treatments (e.g., cancer therapy), as well as capital investment and health education will continue to be funded by the budget. Starting during 2000, the intention is to provide access to supplementary insurance for health care that is excluded from the basic benefit package. In parallel with the implementation of the HIF-financed health care for basic services, the preparations for the mid-2001 launch of similarly financed hospital care will begin. By mid-2000, hospitals will have to be incorporated as separate corporate entities. By end-2000, details of providing hospital care (including a detailed pricing mechanism covering all services) will be proposed to hospitals, followed by the signing of a framework contract and bilateral agreements with hospitals, both public and private.

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[14] The budget pays health insurance contributions for pensioners, the unemployed, and others outside the labor force.

28. **The health reform also aims at revamping primary health care and rationalizing the hospital network.** In addition to retraining family doctors and establishing a clearer division between primary and other health care, it is expected that the markedly changed incentives and the increased level of competition among primary health providers will have a salutary effect on the quality of health care and the willingness to invest in diagnostic and other medical instruments. A growing share of health care services is expected to be provided by private sector entities as the reform process unfolds. Moreover, a number of underutilized hospitals, and those in a very poor state of repair, will be closed or downsized, including by municipalities, in response to the imposition of hard budget constraints.

29. **Health care reforms were formulated with a view to ensuring a limited fiscal impact.** The basic health care package (comprising primarily recurrent clinical health care) has been defined within the revenue capacity of the HIF. If all the assumptions materialize as envisaged (see next paragraph), health-related budgetary expenditures will still rise in 2000, but to a limited extent: the 2000 budget envisages an increase in the share of health expenditures in GDP of approximately ½ percent, reflecting to a large extent non-recurrent institution-building expenses and the need to own up to years of delayed capital investments. Limited unforeseen excesses over this level can be accommodated using special contingency funds set aside in the 2000 budget in part for this purpose.

30. **Turning to the remaining challenges, the key ones are financing hospital care, avoiding a marked increase in health care costs, and providing supplementary insurance.** Adequate long-term financing for quality hospital care needs to be found. At present, health contribution rates are well below those in leading transition economies (6 percent versus 13.5 percent in the Czech Republic and 19.3 percent in Hungary), but the already very high overall social contribution rates leave little room for increase. Economic growth and enhanced revenue collection may allow a higher level of spending on health care than in previous years, but continued significant central government (and municipal) transfers are likely to be required for the health sector. Another key issue is whether the HIF will have the capacity to strictly control the costs of health care provision. Part of the reason for escalating costs is the characteristic of health care that technological progress in this sector does not go hand in hand with savings in labor or costs. In fact, the typical medical advance delivers a higher survival rate or improved comfort levels for patients at higher levels of inputs. International experience is mixed with regard to the ability of monopsonist buyers to contain surges in health care costs, an outcome that must be avoided to ensure the success of health reform. Finally, problems may arise owing to the lack of insurers ready to provide complementary health insurance. Experience in advanced transition economies has shown that private insurers may not be able or willing to rapidly fill in this gap at affordable insurance rates.

D. Concluding Remarks

31. **Bulgaria's pension and health reforms can also be evaluated against a broader set of requirements.** So far in this paper the discussion of pension and health reforms has been primarily fiscal in nature. However, it may be of some interest to review the pension

and health reforms in a broader context, utilizing János Kornai's principles of social reforms as the framework for assessment (Box 3).

Box 3: János Kornai's Principles of Social Reform

These principles describe the desirable properties of social reforms. The first two are ethical postulates, the following five describe the necessary attributes of the institutions and coordination mechanisms created by the reforms, while the final two refer to long-term aspects of allocational efficiency.

(1) **Individual sovereignty**—the need to enhance the individual's right to choose.

(2) **Social solidarity**—the need to support the poor and disadvantaged.

(3) **Competition**—let coordination mechanisms and public and private provision of services compete.

(4) **Incentives**—the reformed system must provide incentives for both the providers and the users of services to use resources efficiently.

(5) **Transforming the role of the state**—restrict intervention to areas of market failure where the state can improve on the outcome.

(6) **Transparency**—design and implement reform in open interaction with the public, and make the cost of providing additional services clear to taxpayers.

(7) **Managing the transition**—allow sufficient time for thorough preparation (including for consensus-building) and effective implementation; provide temporary support to those adversely affected and unable to adapt rapidly but avoid permanently raising subsidies; and rectify emerging teething problems.

(8) **Balanced growth**—strike an optimal balance between allocating resources for welfare reforms and growth-enhancing investment.

(9) **Fiscal sustainability**—ensure continued financing of the state's role enshrined in legislation.

32. **If fully implemented, Bulgaria's pension and health reforms appear to satisfy the main criteria of successful social reforms, as defined by Kornai.** These reforms represented a clear break with the past by substantially improving the scope for individual sovereignty, while retaining aspects that embody social solidarity. Freedom of choice has dramatically increased in both areas, while the strong remaining redistributive elements in the first pillar of the pension system, together with the maintenance of the constitutional right to basic health care, show that reform design took into account the requirement to support the poorer segments of the population. Various forms of service providers are now free to compete for pension contributions and for the right to provide health care. The incentives to contribute to social insurance, and to adopt a healthier lifestyle have been strengthened because the financial cost of doing otherwise has increased, but also because the future rewards in terms of a higher pension or improved health care can be reasonably expected to

materialize as a result of the reforms. One of the most important aspects of these reforms is the dramatic reduction in the role of the government, a shift as important in creating a well functioning market economy as privatization. Government will only play the role of the regulator and supervisor in two of the three pillars of the pension system, while health care provision is being transformed from a 100 percent state owned and run sector to one containing both private and public operators. The reform process holds the promise of substantially increasing transparency in areas that have been characterized by a lack of clear connection between inputs and outputs, unfair advantages provided to the selected few, and deals involving side-payments. The preparation of pension and health reform—involving consensus-building and public education campaigns—was thorough and extensive, and the initial experience in the implementation phase is positive.

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III. Why is Private Sector Credit So Low in Bulgaria?[1]

A. Introduction and Summary

1. **This chapter explores the reasons for and implications of low bank credit to the private sector in Bulgaria, and discusses measures that would facilitate prudent credit growth.** The perception that the provision of bank credit to the private sector is inadequate is widespread in Bulgaria. For example, a recent report by the Bulgarian Industrial Association (BIA, 2000) claims that the "availability of credit resources is turning into a determining factor for ensuring and encouraging the growth of the economy." This chapter attempts to answer a number of pertinent questions: (i) to what extent credit levels in Bulgaria can be considered low; (ii) whether lack of credit is a significant obstacle to faster economic growth; (iii) what factors account for the observed low levels of bank credit to the private sector; and (iv) what steps can be taken to promote a healthy expansion of private sector credit. The remainder of this introductory section provides a summary of the main findings.

2. **Bank lending to the private sector is low in Bulgaria by any standard.** As of end-1999, the ratio of private sector credit to GDP was only 12 percent. This represents almost half of the level reached before the 1996 banking crisis, and only two thirds of the average level for transition economies. The difference is much starker when compared with the industrialized countries, which typically have ratios above 100 percent. Financial intermediation is low even when controlling for Bulgaria's stage of development. A cross-country regression for 176 countries during 1989–98 indicates that per capita output and the ratio of private sector credit to GDP are positively correlated, and that a country with Bulgaria's per capita GDP is expected to have a 30 percent ratio of private sector credit to GDP. This is even true when restricting the comparison to transition economies, which tend to have underdeveloped banking sectors.

3. **A more developed banking system would likely help Bulgaria achieve faster economic growth.** There is mounting international evidence that increased financial intermediation can have a significant impact on economic growth. This is because financial intermediaries mobilize saving, transform maturities, exert corporate control, and channel funds to their most productive uses. These factors can be especially relevant for Bulgaria, where the economy is still maturing and becoming more market oriented. Estimates from a cross-country study suggest that were Bulgaria to develop its banking system to the average level of countries in its income group, its yearly growth rate could be 1–2 percentage points higher.

4. **The low level of private sector credit reflects mostly supply and institutional factors.** Low credit demand does not appear to be the reason for the present low levels of bank lending, because investment is strong, and alternative financing channels are not readily

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[1] Prepared by N. Tarhan Feyzioğlu and R. Gaston Gelos.

available. However, the supply of credit is limited for a number of reasons. Banks have become more cautious because of the 1996 banking crisis and the ensuing new environment where they had to build up risk management capacities. The economic restructuring also adversely impacted credit to private sector, because many old customers ceased to exist. New customers from the emerging private sector typically do not have a credit history or appropriate collateral, and transparent financial information is often lacking. Another factor is the lack of full competition, which has allowed banks to keep credit levels low while maintaining high interest spreads. Finally, banks have been cautious in their lending behavior because of an imperfect legal environment. The resolution of financial disputes is often slow, and contract enforcement is weak. Collateral is hard to seize, and bankruptcy and liquidation procedures remain fraught with ambiguity and uncertainty. A legal provision that criminalizes the extension of loans without "proper security" even in the absence of fraudulent intent acts as a deterrent for bank officials.

5. **The Bulgarian authorities have already taken significant measures to facilitate prudent growth of bank credit to the private sector.** Continuing bank privatization is promoting competition in the banking sector. A central credit registry will soon be made operational fully, improving the information base for credit decisions. The planned training of judges on financial issues should help accelerate the resolution of disputes. Amendments to the Commercial Code are being drafted to accelerate and improve the handling of bankruptcy cases. A law on land registration and cadastre, which would facilitate the use of land as collateral, is being discussed in parliament.

6. **However, challenges remain.** While the existing legislation is generally solid, and is set to improve further with planned changes, more effort is needed to enforce this legislation strictly. In addition, it should be complemented by clear implementing regulations. To improve transparency and help overcome information asymmetries, accounting standards and disclosure rules need to be implemented stringently. To help banks gain more confidence, creditor's rights should be enforced more consistently. Enterprise bankruptcy cases should be handled more quickly. To this end, the existing draft amendments to the Commercial Code should be adopted quickly. A thorough review of the existing practices governing insolvency and liquidation procedures would be desirable. Finally, consideration should also be given to the removal of the provision in the Criminal Code that penalizes the extension of loans without "proper security". At a minimum, the law should be clarified so as not to criminalize reasonable lending practices.

B. The Level of Bank Lending to the Private Sector

7. **As of end-1999, bank credit to private sector was low, at only 12 percent of GDP.** Before the severe banking crisis in 1996, the level of credit to the private enterprises was almost twice as high, at around 20 percent of GDP (Figure 1). At the time, credit to the state-owned enterprises (SOEs) stood at a similar level, so that total credit to the non-government sector was around 40 percent of GDP in 1995 (Table A32).[2] However, because of the banking crisis and the ensuing macroeconomic instability and hyperinflation, the value of total credit to the non-government sector eroded rapidly. By mid-1997, bank credit to both the SOEs and the private enterprises were halved. With the setup of the currency board, the government dramatically reduced its borrowing from the banking system (Tables A32 and A37). This in principle allowed for a "crowding in" of enterprise credit. In fact, the credit to private sector started to increase moderately, as real credit growth reached 15 percent per annum on average in 1998–99. However, this increase was partially due to higher leva value of the U.S. dollar denominated loans, and real credit remained well below the pre-crisis levels. Credit to the SOEs has continued to shrink, partly because average credit volume to these enterprises declined, and partly the number of SOEs decreased as a result of privatization and liquidation. Credit to households was the only component of the total credit to the non-government sector that exceeded its pre-crisis levels, but remained low in absolute terms.[3]

8. **The level of bank credit to the private sector is low compared with other countries.** Industrial countries have much deeper financial structures, with the ratio of private sector credit to GDP well above 50 percent (Figure 2). Transition countries also tend to have higher ratios, with an average of 17 percent. Even controlling for Bulgaria's stage of development, financial intermediation is low. A regression of the ratio of private sector credit to GDP on the per-capita PPP-GDP and its square for 176 countries during 1989–98 indicates that a country with Bulgaria's income should have 30 percent private sector credit to GDP ratio.[4] Even when restricting the estimation to the group of transition economies or developing countries with similar income levels the results remain broadly the same: a regression with 25 transition countries yields a predicted value of 19 percent for Bulgaria, while a regression with 25 non-transition economies with similar GDP per capita results in a predicted value of 24 percent for Bulgaria.

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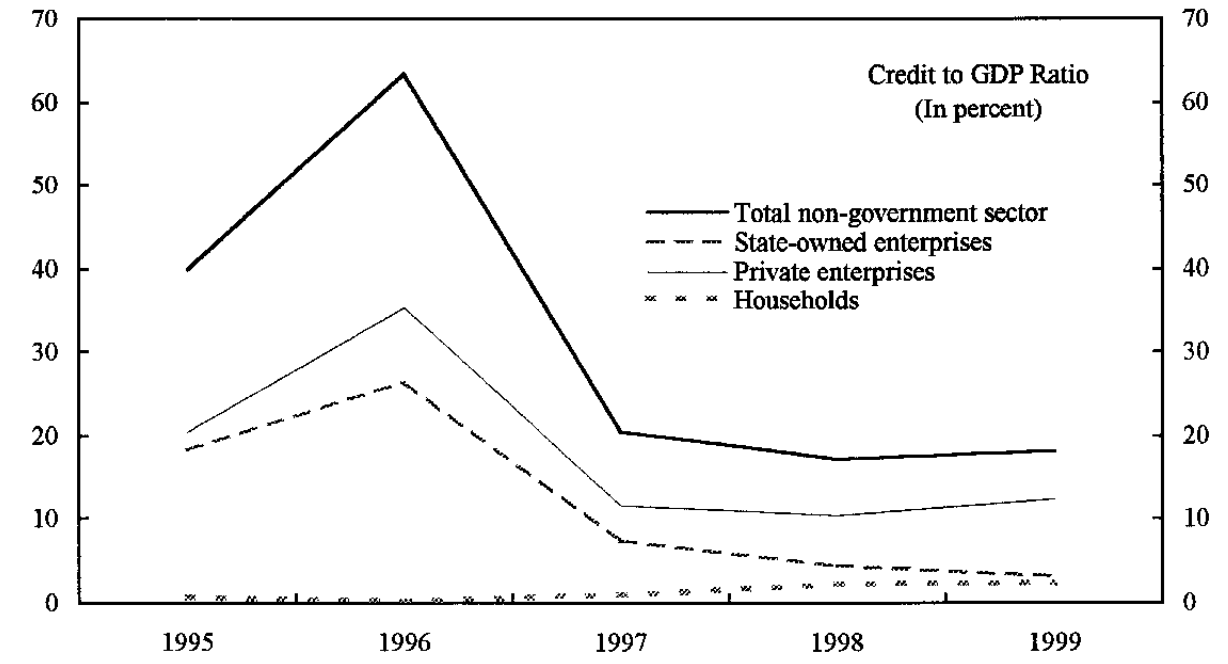
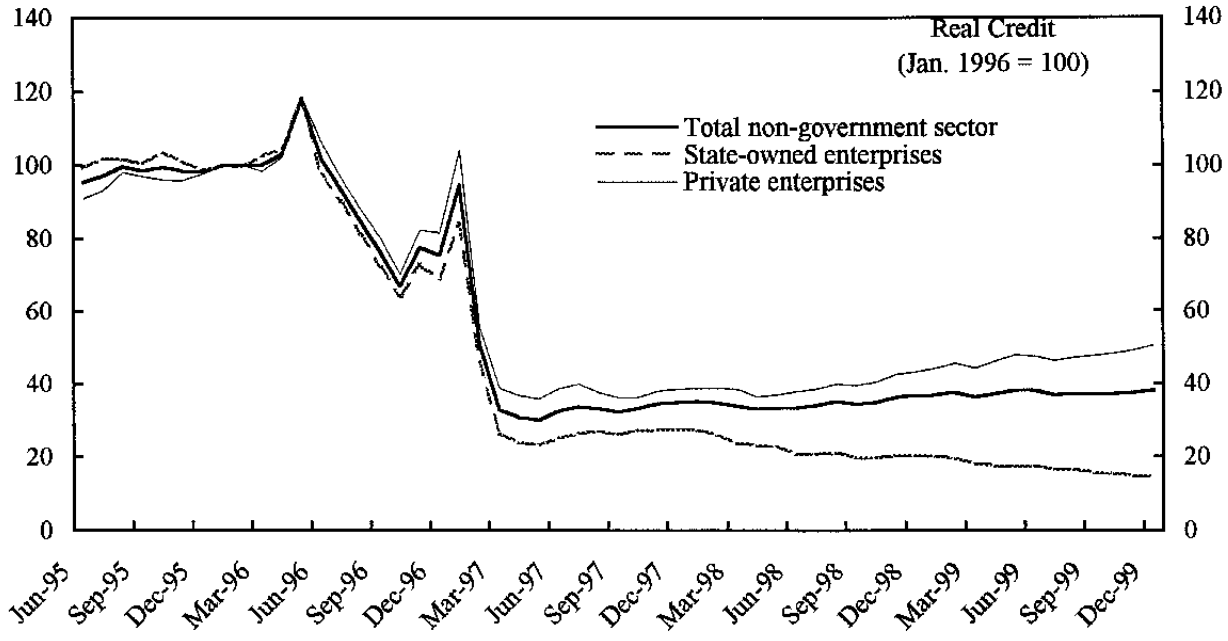
[2] These large lending levels do not mean that bank services in promoting good investment were equally large. In fact, lack of good banking was the culprit of the 1996 banking crisis. For a discussion on the banking crisis of 1996 and the macroeconomic instability, see IMF (1999a).

[3] See Ulgenerk and Zlaoui (2000) for a review of the current financial markets in Bulgaria.

[4] A similar chart is shown in the 1999 EBRD Transition Report.

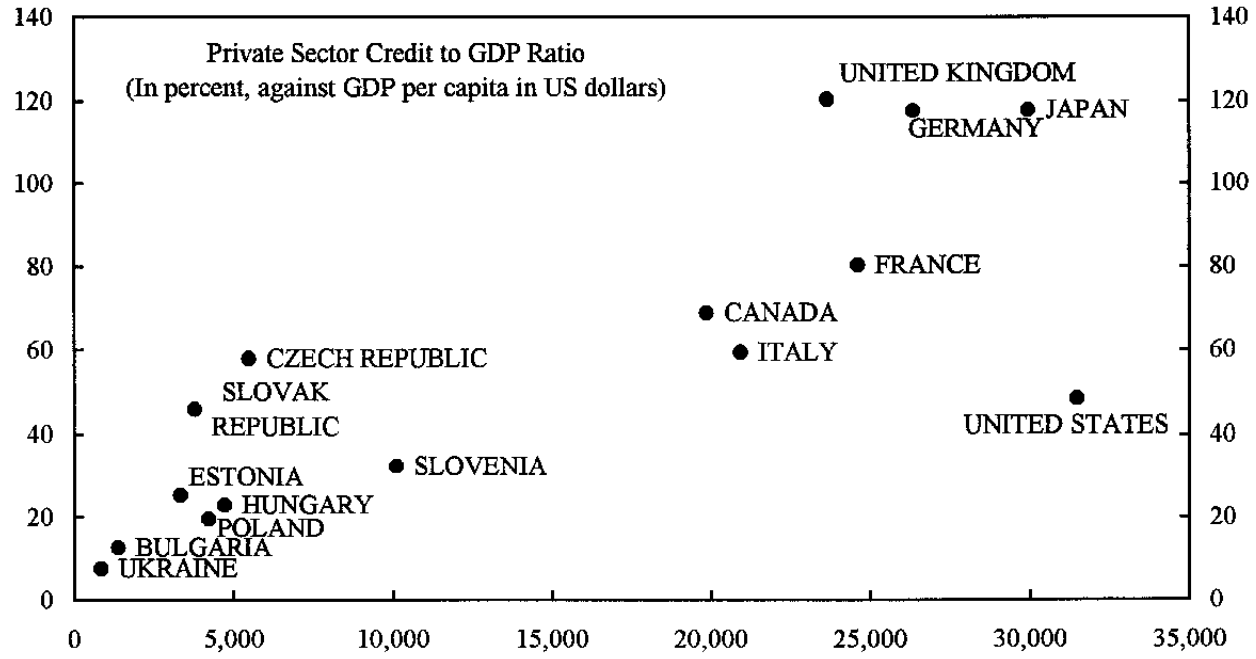
Figure 1. Bulgaria: Credit to the Private Sector, 1995-99

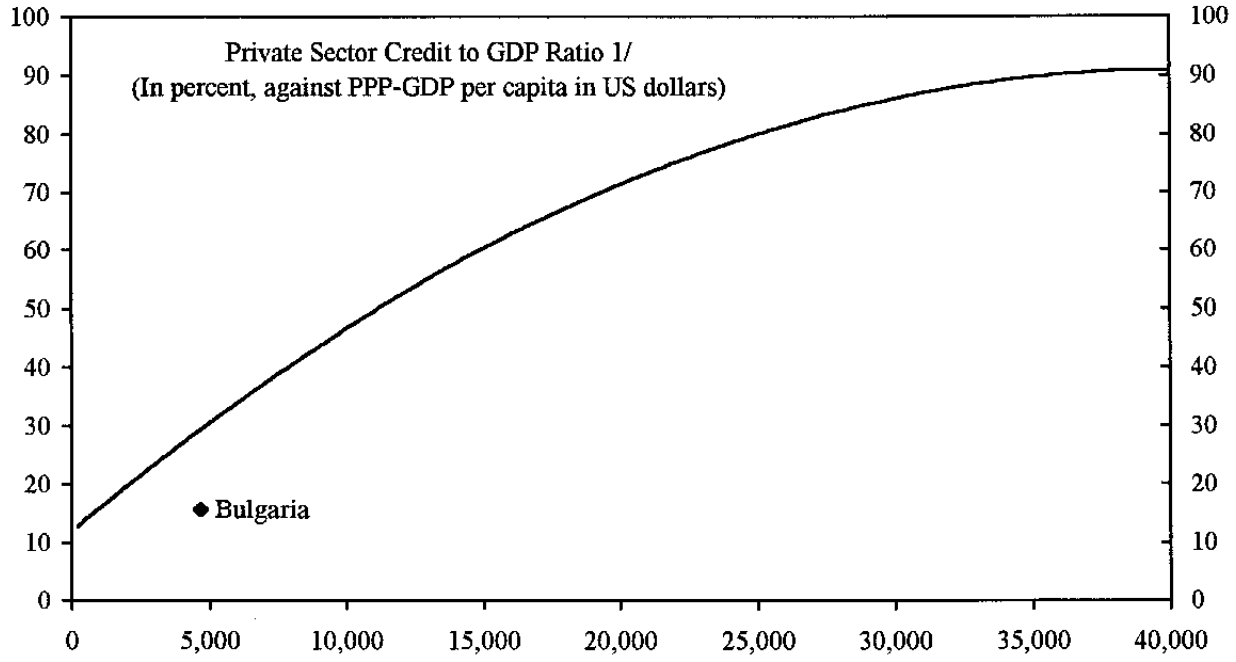




Source: Monetary Survey, the BNB, and staff calculations.

Figure 2. Bulgaria: Credit to the Private Sector, 1989-98





Source: International Financial Statistics, and staff calculations.

1/ The solid line indicates the fitted values from a regression of the ratio of private sector credit to GDP on per capita PPP-GDP for 185 countries in 1989-98.

C. How Important is Credit for Growth in Bulgaria?

9. **Financial intermediation facilitates the efficient allocation of resources in an economy.** Financial intermediaries mobilize savings, transform maturities, exert corporate control, and channel funds to their most productive uses.[5] For example, if some firms are denied access to credit, they need to finance investments with retained earnings. In such cases, the economy wide selection of investment projects will be determined by enterprise liquidity rather than project profitability. In addition, those firms that invest using their own resources usually do not benefit from external monitoring.

10. **There is mounting international evidence that the level of financial intermediation has a causal effect on growth.** Levine, Loayza, and Beck (1999) find strong econometric evidence for the hypothesis that financial intermediary development exerts a statistically significant and economically large impact on economic growth.[6] Their estimates suggest that if Bulgaria increased its share of private sector credit in GDP to the mean predicted by its GDP per capita (0.3), its annual growth rate could be 1–2 percentage points higher.[7]

11. **In the case of Bulgaria, it is likely that the availability of credit will have an important influence on growth.** Bulgaria is in the midst of a large-scale structural transformation of the economy. While the public sector is downsizing, a whole new group of entrepreneurs is emerging, and new small and medium-sized enterprises are trying to establish themselves in the market. In most cases, these new firms are dependent on bank financing for their expansion. Increased financial intermediation through banks would contribute to an improvement in corporate control and thereby enhance the business climate for private sector development. Such gains can be expected to be higher in a transition country that is striving to develop fully functioning markets than in a mature economy.

D. The Reasons for Low Credit to the Private Sector

12. **Low credit to the private sector can in principle reflect both demand and supply factors.** Potential factors reducing credit demand include the absence of profitable investment opportunities, and the availability of alternative financing instruments, such as

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[5] For a comprehensive overview of these issues, see Levine (1997).

[6] See also King and Levine (1993), and Rajan and Zingales (1998).

[7] On the other hand, high levels of financial intermediation are not a *conditio sine qua non* for economic growth. For example, although Mexico experienced a drastic credit crunch during 1996-98, the economy managed to grow by an average of 5.6 percent in those years. Among transition economies, Poland is an example of a country that managed to grow fast without a developed financial sector.

capital markets, inter-enterprise arrears and informal lending. Factors affecting loan supply include liquidity, the impact of the 1996 crisis, increased uncertainty as a result of economic restructuring, lack of competition in the banking system, underdeveloped short-term capital markets, the punishment of risky behavior by depositors, lack of information about the quality of borrower, changes in regulation, and an imperfect legal environment. Since it is notoriously difficult to quantitatively separate demand and supply effects on credit markets, this section discusses the potential factors in mostly qualitatively terms, supported by quantitative evidence where possible.[8]

13. **A review of the potential factors suggests that the reasons for low private sector credit in Bulgaria are mostly linked to supply and institutional factors.** Depressed demand for credit is unlikely to be the main reason for the low lending levels, because investment is strong, and alternative financing channels are not readily available. On the supply side, the behavior of the banks has changed dramatically after the 1996 banking crisis and the ongoing restructuring in the economy. In addition, lack of competition has not promoted credit expansion. Finally, institutional factors, including legal and contract enforcement problems, insufficient information about borrowers, and strict bank laws and regulations contributed to banks' reluctance to lend. The remainder of this section elaborates these arguments.

Demand factors

14. **Significant and accelerating investment activity and high lending rates suggest that low credit demand is unlikely to be the main reason for the observed low lending volumes.** Weak credit demand would typically be associated with low investment and lending rates, neither of which is the case in Bulgaria. Spreads between deposit and lending rates have been high, around ten percent since the introduction of the currency board arrangement (see Figure 3). These levels are similar to those currently prevailing in Mexico, a country seen as suffering from a severe "credit crunch" since the 1994-95 crisis, and higher than those in other countries that experienced credit contractions in the aftermath of crises, such as Argentina, Korea, and Thailand.[9] In addition, investment rates have been increasing from 11.4 percent of GDP in 1997 to 18.5 percent in the first three quarters of 1999 (Table A2). These investment rates are not excessively low by international standard.

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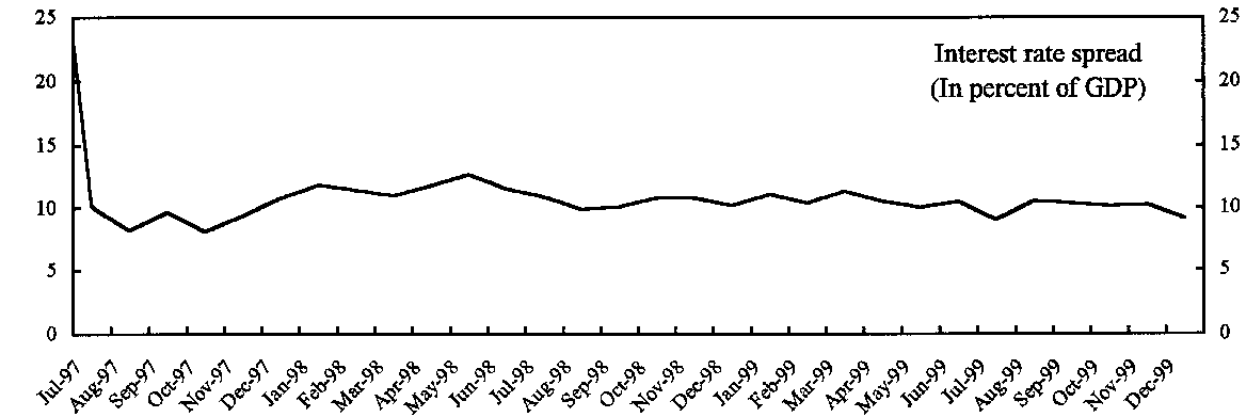
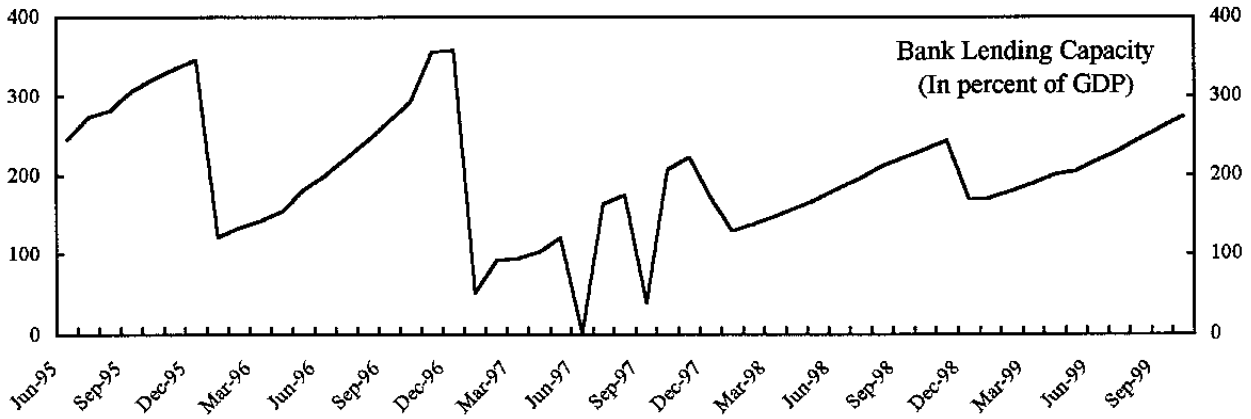
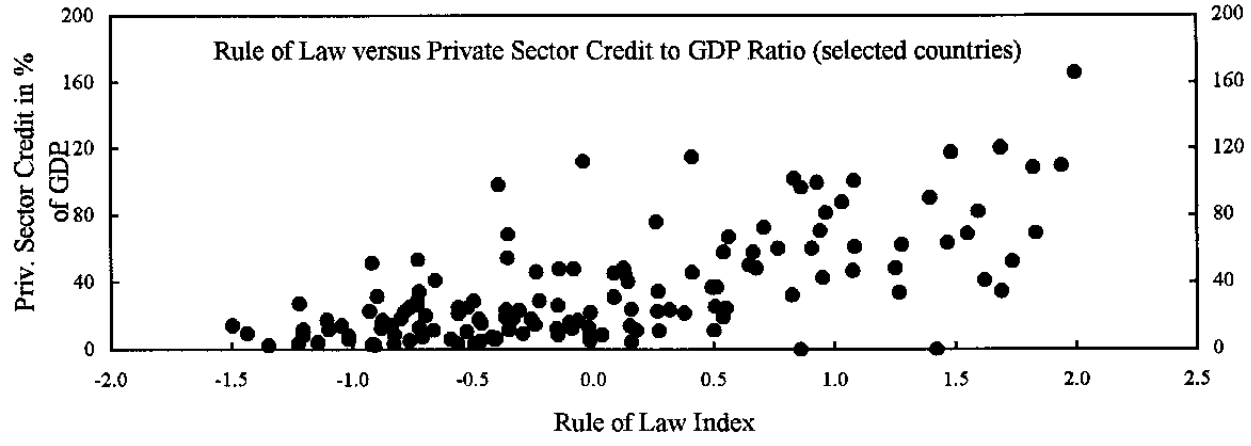
[8] Some studies have nevertheless attempted to estimate demand and supply schedules. For a study of the Argentinean case, see Catão (1997). For an examination of the Finnish experience, see Pazarbaşioğlu (1997). Ghosh and Ghosh (1999) use a similar approach for a number of Asian countries after the crisis. Given the short period since the establishment of the currency board in Bulgaria, the available time series are not long enough for this to be a feasible strategy in the present case.

[9] See Domaç and Ferri (1999). For a model of the determinants of interest margins, see Wong (1997).

Figure 3. Bulgaria: Credit to the Private Sector Indicators, 1996-99







Source: The BNB, Kaufmann, Kraay and Zoido-Lobaton (1999), and staff calculations.

15. **Alternative financing channels, including capital markets, inter-enterprise arrears, and informal lending, are unlikely to substitute significantly for bank credit.** Capital markets are very small in Bulgaria, with a stock market capitalization only a fraction of GDP (around 5 percent). Inter-enterprise arrears are not large and are unlikely to increase, because budget constraints have been hardened substantially over the last three years. Bulgaria now scores much better in this regard than many other transition economies: in a survey carried out by the EBRD (1999), the percentage of firms reporting that they had substantial arrears with either the national government, the local government or state-owned utilities companies was only 12 percent. While this figure is higher than those for some more advanced transition economies are, it is roughly equal to that for the Slovak Republic and only slightly higher than that for Poland. The percentage of firms that failed to pay their taxes in 1999 is much lower than in Czech Republic, Croatia, Poland, the Slovak Republic, and Slovenia.[10] However, while their significance is difficult to assess, other informal lending mechanisms may still play a role in financing investment in Bulgaria.

Supply and institutional factors

16. **The main factors that may affect loan supply are bank liquidity, the need to adjust to the new environment after the 1996 banking crisis, the ongoing restructuring, lack of competition in the banking system, lack of information about the quality of borrowers, and an imperfect legal environment.** Underdeveloped short-term capital markets, the punishment of risky behavior by depositors, and changes in regulation may also affect loan supply. At the outset, we should note that the low levels of credit are not the result of a lack of liquidity. Banks are liquid, but prefer to hold domestic or foreign bonds instead of loans as assets. Banks hold only 29 percent of their earning assets in the form of loans to enterprises and households. Bank lending capacity has increased markedly since the establishment of the currency board and is at similar levels as in late 1996 (Figure 3, second panel).[11] The other factors are discussed below.

The 1996 banking crisis

17. **Bank credit to private sector remained low in Bulgaria after the banking crisis, which is consistent with the experience of other countries.** International comparisons show that when a banking crisis is associated with a decline in credit, it sometimes takes many years for the credit levels to recover. Figure 4 shows the behavior of the share of private sector credit in GDP after banking crises in eight countries.

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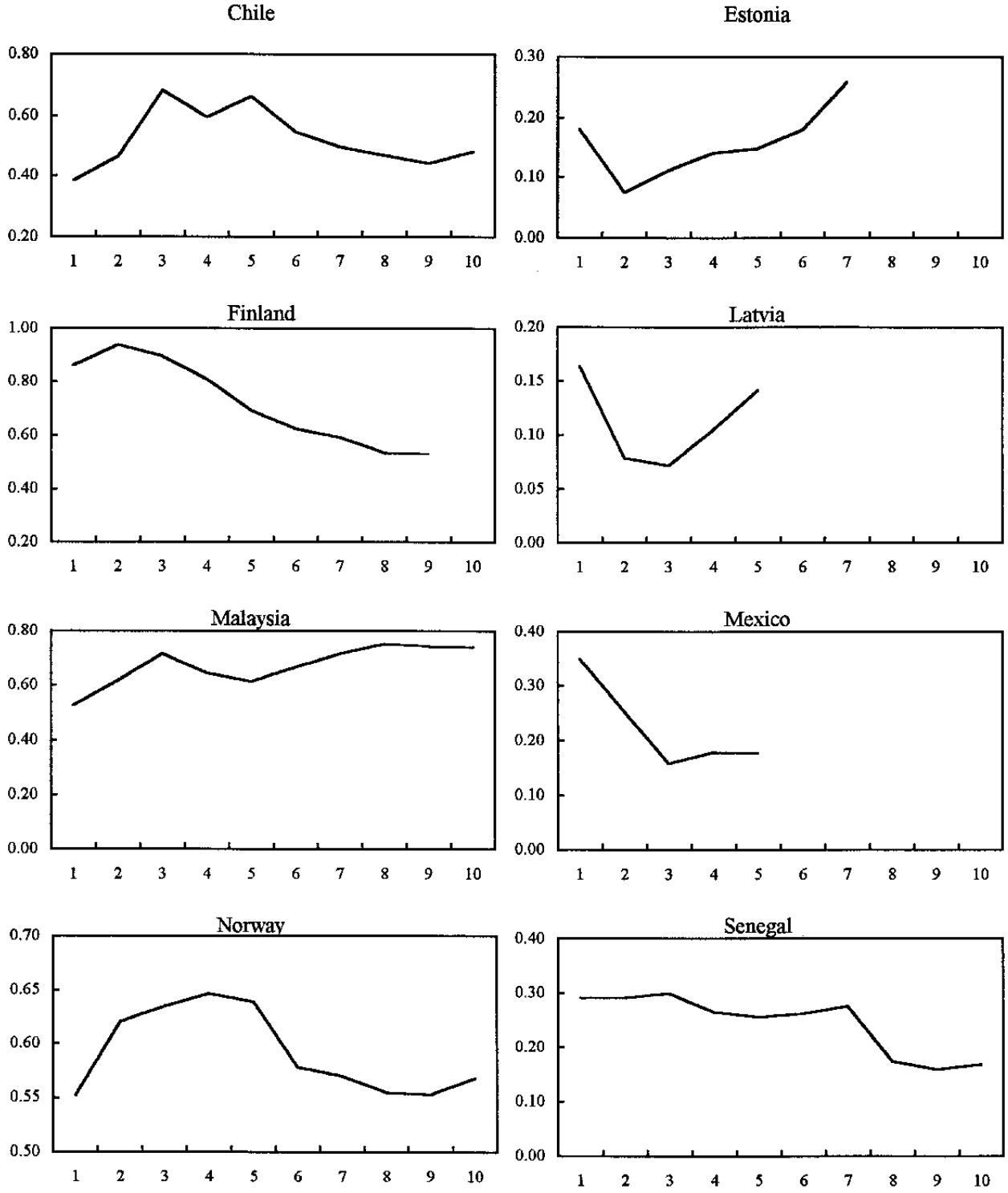
[10] See EBRD (1999), p. 138.

[11] Bank lending capacity is calculated as total liabilities plus net worth minus required reserve and liquidity requirements minus cash in vault minus own capital. Note, however, that this measure does not take into account changes in capital adequacy ratios, which were tightened substantially after the banking crisis.

Figure 4. Bulgaria: Share of Private Credit Around Banking Crises
(t = 2 denotes date of banking crisis)



Sources: IFS, and staff calculations.

18. **One reason is that the banks started to lend cautiously to strengthen their balance sheets, which were weakened in the run up to the crisis.** Before the crisis, in 1995, the share of capital in total liabilities was more than 6.5 percent. However, this ratio dropped substantially during the crisis, to close to 4 percent. At the same time, the share of classified loans in total loans increased from 60 percent to close to 70 percent in 1996. Since then, banks have managed to boost the share of capital in total liabilities to more than 10 percent. At the same time, capital adequacy ratio doubled from around 20 percent in 1995 to close to 40 percent in 1999 (Table A38). In parallel, the share of classified loans in total loans declined to 15 percent.

19. **Moreover, Bulgarian banks are now operating under very different circumstances than three years ago, and need time to adjust particularly their risk assessment capacities.** Banks, which prior to the crisis channeled funds to state-owned enterprises and engaged in connected lending, are still in the process of building up risk assessment, credit evaluation, and project monitoring techniques. Such a process, which requires personnel training and hiring, accumulation of experience, as well as the implementation of adequate computer and software capacities, is likely to take time. However, as noted by the OECD (1999), the incentives for banks to invest in the acquisition of these skills will depend on the institutional environment, including the degree of competition, and the ability for banks to collect their claims—a point discussed further below.

20. **The more aggressive lending strategies on the part of foreign banks, which can be assumed to possess the necessary expertise, attest to this need.** The average ratio of loans to total assets is 44 percent for foreign banks against 35 for domestic ones. It is noteworthy that the title "Banker of the Year" was awarded by the magazine "The Banker" to the manager of a foreign bank, BNP-Dresdner Bank, in recognition of that institution's fast-growing lending business. This is despite the general view that foreign banks are less likely to be familiar with specific Bulgarian borrowers, an effect which tends to work in the opposite direction.

Economic restructuring

21. **During economic restructuring investment risk can increase, and information asymmetries may worsen, leading banks to curb lending.** When markets are changing fundamentally, objective default risk is likely to be higher. This implies that even if banks could correctly assess the probability of default of an individual borrower, so that there were no adverse selection problem, they would supply credit only at higher interest rates. On the other hand, even if objective risks do not increase with restructuring, information asymmetries are likely to do so as a result of the loss of old customers bases.

22. **While it is not possible to fully assess the level of investment risk in Bulgaria in this study, the current indicators do not indicate high risk levels.** In fact, the percentage of nonperforming loans has decreased sharply since the banking crisis, and has stabilized below 10 percent. This is comparable to the CEE economies, where this ratio is close to

7 percent, although still substantially higher than the EU average, which is less than 2 percent. On the other hand, the Agency for Economic Analysis and Forecasting (AEAF) wrote in its report on the first half of 1999 (p. 17) an opposite view: "Risk in the Bulgarian economy remains rather high and makes changes in banks' strategies for asset and liability management unlikely".

23. **The restructuring of Bulgaria's economy has led to a sharp increase in informational problems.** Under the large structural changes in the economy since 1997, many old bank customers ceased or reduced operations, or have become uncreditworthy. New customers from the emerging private sector and previously state-owned enterprises under new management typically do not have a credit history or appropriate collateral. Moreover, given the economic instability prior to the establishment of the currency board, past performance is not likely to be a good predictor of future performance even for firms that have already been operating for many years.

24. **While these factors imply that restructuring may initially adversely affect credit levels, they do not account for all the difference in lending between Bulgaria and other countries.** The private sector share of GDP, and indices measuring progress in liberalization of the economy, such as those compiled by the EBRD, are all positively correlated with credit. However, countries like the Czech Republic and Hungary had already achieved deeper intermediation when their private sector share of GDP was similar to Bulgaria's current levels. Other countries, like Croatia or Slovenia, do not have higher private sector shares in GDP, but markedly higher levels of private sector lending. Similarly, while countries that have made more progress with privatization and bank liberalization, tend to have higher credit levels, variations in indices attempting to measure progress in this regard are not able to explain much of the variation in lending across transition economies. Table 1 shows some of these indicators for seven European transition economies.

Lack of competition

25. **The degree of competition influences the level of intermediation, as well as the spreads between lending and deposit interest rates and the efficiency of the banks.** A monopolist, or an enterprise in an oligopolistic market, would maximize its profits by limiting its lending much below the levels attainable under perfect competition, and keep the prices—in this case, interest rate spreads—high. This microeconomic principle mirrors in empirical results, including a panel study by Rother (1999) where he finds a negative correlation between market concentration measures and financial intermediation levels in transition economies. In addition, in non-competitive markets, banks have little incentives to minimize costs, and thus in general operate inefficiently.

26. **State-owned banks dominate the Bulgarian banking system.** Out of 35 banks, the top two banks are state owned and hold 40 percent of the total assets in the banking system. The next five largest banks, which were mostly state-owned until this year, hold 30 percent of the total assets, with the remaining 28 banks holding only 30 percent of the total assets. These 28 banks are mostly very small, or branches of foreign banks.

Table 1. Bulgaria: Private Sector Credit and other Indicators in Transition Economies, 1995-99

	Private Sector Credit as percent of GDP	Private Sector Share in GDP	EBRD Banking Reform and Interest Rate Liberalization Index	EBRD Large-Scale Privatization Index	EBRD Small-Scale Privatization Index
Bulgaria	13 (1999)	60	3-	3	3+
Croatia	30 (1996)	60	3	3	4+
Czech Republic	58 (1998)	80	3+	4	4+
Hungary	22 (1995)	80	4	4	4+
Poland	17 (1997)	65	3+	3+	4+
Romania	13 (1998)	60	3-	3-	4-
Slovenia	29 (1997)	55	3+	3+	4+

Source: EBRD Transition Report 1999.

27. **There are indications that the Bulgarian banks behave oligopolistically.** All the characteristics of a non-competitive market are present: intermediation is low, interest rate spreads are large, and banks in general are inefficient. They have high operating costs relative to the CEE average and industrial countries in Europe (Table 2).

28. **Empirical evidence based on a panel data covering the past two years also supports the view that the banking system in Bulgaria is not perfectly competitive** (see the annex for the technical details). The empirical work makes use of the result from microeconomic theory that links the degree of competition and the sensitivity of total revenue to costs (see Panzar and Rose (1987) for this type of methodology). A one-to-one correlation would indicate perfect correlation, while lack of any correlation would indicate that banks behave like local monopolies. The panel estimation results and the tests on the relevant coefficients show that while there is some correlation between costs and revenues, it is significantly less than one, implying that the Bulgarian banks behave oligopolistically.

Lack of reliable financial information

29. **Informational asymmetries are at the heart of credit markets.** Lenders lack full information about the characteristics and the behavior of borrowers, and this has implications for the behavior of both parties. In particular, it may induce credit rationing on the side of banks.[12]

30. **A general lack of reliable financial information makes it difficult for banks to assess the situation of borrowers.** While international accounting standards have largely been adopted in Bulgarian laws, in some areas, there is still scope for improvement. More important, the degree of implementation and enforcement of accounting standards is very weak. For example, although the law contains reasonable disclosure requirements, in practice most companies do not provide this type of information, reducing the informational content of balance sheets and income and loss statements. In addition, a central credit registry is only now being put in place.

Legal and contract enforcement problems

31. **An environment fraught with legal uncertainties and contract enforcement problems, will restrict banks' willingness to lend.** For example, banks often require collateral as a way of overcoming the informational asymmetry problems described above. If, however, it is difficult to establish a clear title regarding collateral, or if the judicial system works too slowly or unpredictably to ensure that collateral can in fact be seized, this avenue of dealing with informational asymmetries will be closed.

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[12] See Stiglitz and Weiss (1981).

Table 2. Bulgaria: Financial Ratios, 1995-98

	Bulgaria 1/	CEE 1/ 2/	EU Other 1/ 3/	EU Large 1/ 4/
		(In percent)		
Net Income/Total Capital Funds				
1995	19.9	23.3	9.7	8.2
1996	88.7	17.8	10.6	8.2
1997	91.0	15.8	10.4	8.4
1998	6.8	-1.0	11.0	10.9
Net Income/Total Assets				
1995	2.5	1.9	0.6	0.4
1996	6.7	1.4	0.7	0.5
1997	11.4	1.3	0.7	0.5
1998	1.2	-0.1	0.8	0.6
Liquid Assets/Total Assets				
1995	55.9	42.5	35.8	34.0
1996	63.6	41.6	35.2	34.5
1997	73.8	42.4	33.5	34.5
1998	65.4	42.0	30.4	33.0
Total Loans/Earning Assets				
1995	33.2	52.2	54.8	54.3
1996	32.6	53.6	53.5	53.6
1997	26.7	51.2	53.5	53.2
1998	29.7	52.9	53.3	53.6
Non-Interest Expense/Income				
1995	55.0	37.8	30.8	30.1
1996	60.8	45.9	32.0	31.3
1997	55.0	46.2	34.6	30.8
1998	72.1	56.0	35.8	29.7
Non-Interest Expense/Total Assets				
1995	19.2	5.8	2.6	2.2
1996	41.6	7.6	2.5	2.1
1997	19.4	7.3	2.4	2.0
1998	7.6	8.9	2.5	1.9
Non-Interest Expense/Total Deposits				
1995	28.1	7.7	3.6	3.5
1996	75.9	9.9	3.6	3.4
1997	31.7	9.3	3.5	3.3
1998	10.7	11.2	3.7	3.2

Source: BankStat and BankScope.

1/ Based on most banks in these countries that publicly disclose their balance sheets and income statements. For a complete list, see BankStat.

2/ CEE: Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, and Slovak Republic.

3/ EU Other: Austria, Belgium, Denmark, Finland, Greece, Ireland, Netherlands, Portugal, Spain, and Sweden.

4/ EU large: Germany, France, Italy, and the United Kingdom.

32. **Bulgaria still ranks low in an international comparison of the prevalence of the "Rule of Law".** Kaufmann, Kraay and Zoido-Lobatón (1999) have recently constructed an aggregate variable measuring the prevalence of the "rule of law" for 167 countries based on a variety of individual surveys and ratings. According to this variable, Bulgarian ranks number 81, below most transition economies that show higher financial intermediation. Across countries, stronger prevalence of the rule of law is clearly associated with higher levels of credit to the private sector, and in a simple OLS regression, the rule of law variable explains 43 percent of variation in credit shares in GDP. Interestingly, the rule-of-law variable seems to be matter for private sector credit to GDP even after controlling for per-capita GDP (Figure 3, third panel).[13]

33. **More disaggregated results from various surveys support the view that major additional efforts are needed to improve governance in Bulgaria.** For example, the EBRD has recently carried out an enterprise survey asking firms how problematic different factors were for the operation and growth of their businesses. The results concerning "Law and order" landed Bulgaria on place 15 of 20 transition economies. In the 1999 Transparency International Corruption Perceptions Index, Bulgaria fares slightly better, ranking on place 63, below other transition economies such as Slovenia (25), Czech Republic (39), Lithuania (50), the Slovak Republic (53), Latvia (58), and at the same level as Macedonia, Romania, Egypt and Ghana. In the same vein, the 1999 Corruption Assessment Report published by the Coalition 2000 highlights the inefficiency of the judicial system and stresses the need for judicial reform. On the other hand, a recent report by FIAS mentions that investors did not see corruption as a particularly acute problem in Bulgaria. The general perception of a lack of reliable legal framework appears to be affecting banks directly. According to a survey among banks conducted by Koford and Tschoegl (1999), nine out of ten respondents answered positively to the question "Do you have difficulties with court action?" A recent assessment of the judicial system by the World Bank (1999) highlights a variety of shortcomings such as understaffing, low salaries, potential corruption, insufficient training mechanisms, and overly complex legal procedures.[14] Since law enforcement is weak, banks have difficulties in seizing collateral.[15] It can often take many months before the creditor can physically assume possession of the pledged property. Courts are generally overloaded[16], and enforcement by the executive is often slow.

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[13] A cross-sectional regression of the credit to the private sector as a share of GDP in 1998 (CREDIT) on the rule-of-law variable (RULE) and on PPP-per-capita GDP (PPP) gave the following result: CREDIT = 0.18·RULE + 0.00000895·PPP, R^2=0.45. The t-statistics for the RULE-coefficient was 4.185 and for PPP 1.851.

[14] As quoted in Foreign Investment Advisory Service (FIAS) (1999), p. 5.

[15] BIBA (1999), p.8.

[16] See BIA (2000).

34. **Bankruptcy and liquidation procedures remain fraught with ambiguity and uncertainty.** Debtors can delay the process easily, allowing them to continue operating with impunity.[17] Currently, the Commercial Code contains provisions under Part IV for bankruptcy and under Chapter 17 for liquidations. However, Chapter 17 addresses procedures for voluntary liquidation only. The application of the provisions in Chapter 17 for insolvent companies leads to many practical complications: for example, there is no order of priority concerning the payment of creditors. On the other hand, according to the provisions in Part IV, bankruptcy procedures are entirely controlled by the Court, which generally results in slow procedures. Recently, an amendment to the Commercial Code was submitted to parliament, which addresses some of these problems and should help to accelerate bankruptcy procedures. A related issue concerns the selection, training, and supervision of trustees in bankruptcy cases. The Ministry of Justice maintains a list of persons eligible as trustees, but their training and supervision are inadequate. As a result, trustee practices vary widely, and often lack the required professionalism.

35. **Until recently, there were problems with establishing a clear title for collateral.** According to the aforementioned survey by Koford and Tschoegl (1999), banks reported that, when trying to seize collateral, they often found out that the borrower had pledged it to several banks. However, a central collateral register for moveable property has by now been established and appears to be operating well. In agriculture, there are still some remaining problems regarding the clarification of ownership and the registration of land, which constitute obstacles for the extension of credit to farmers.[18] The current cadastre and registration system does not function well. A new Registration and Cadastre Law has been drafted, but has been moving very slowly through Parliament.

36. **In the absence of a predictable enforcement of creditor's rights, banks will have little incentive to invest in the acquisition of skills and technology.** If the marginal return to an additional investment in the human capital and equipment needed for an expansion of lending activities is not greater than the return from holding safe assets, banks will have no incentives to change their current practices, and the problems discussed in section D will continue to limit their role as financial intermediaries.

Restrictive laws and regulations

37. **While changes in bank regulations can to some extent explain the decline in borrowing after the crisis, these regulations are not overly restrictive and cannot alone account for the low intermediation levels.** Several requirements have been either tightened substantially or implemented more strictly after the crisis, including those on capital

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[17] See BIBA (1999), p.9 and OECD (1999), p.71.

[18] For a general framework for understanding how land registration affects financial development and growth see Byamugisha (1999).

adequacy, foreign exchange open positions, large loans and minimum reserves. However, these changes were consistent with a return to more prudent banking, and are in line with the Basel Core Principles in Effective Banking Supervision (see IMF (1999b)). In addition, part of these restrictions are being relaxed, including the provisioning rules, and the minimum reserve requirement, in parallel to the decreasing risk in the banking sector.

38. **However, the articles of the Criminal Code that relate to lending may have an adverse impact on banking intermediation.** The law criminalizes the extension of loans without "proper security" when the loan is not paid back. The corresponding provision in the Criminal Code, Article 220 (3), was created in 1997 as a reaction to the banking crisis. The law does not require the presence of any embezzlement intend from the part of the bank official. The "proper security" prescribed by the law is not clearly defined, and could be interpreted as to prescribing 100 percent collateral—a stricter requirement as those contained in the Banking Act. While not many bank officials have been punished under this provision, the law is certainly exerting an effect on bankers' behavior. According to BIA (2000), the requested collateral is usually about or over 200 percent of the amount of the requested credit. Similar information was obtained by the mission in conversation with bankers. It is noteworthy that an excessive reliance on collateral for lending decision not only typically results in a suboptimal allocation of resources, since many profitable investments are not carried out, but also does not protect the banking system from aggregate shocks.[19]

High liquidity requirement in a currency board

39. **Banks may feel obliged to maintain high liquidity given the limited lender-of-last resort function of the currency board.**[20] As pointed out by Caprio and Honohan (1993), banks can be faced with sudden bunching of withdrawals, the nonrenewal of credit lines by other intermediaries, or the sudden need to make credit available to important clients. In the absence of the possibility of borrowing from the central bank, the amount of liquidity that banks will hold will depend on the depth of money markets. If short-term money markets are shallow, banks will be forced to hold larger reserves. A lack of advanced technology of liquidity management will similarly induce banks to hold higher liquidity.

40. **While Bulgarian banks are very liquid, this is not only due to prudential reasons or the absence of short term capital markets, but also because of weak liquidity management.** The minimum reserve requirement has been set high at 11 percent, given the limited lender-of-last-resort capability of the BNB, and the legacy of the crisis. Even then, banks have regularly maintained excess reserves that fluctuated between 2 and 23 percent of minimum required reserves in 1999. Also, the primary and secondary liquidity ratios for the

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[19] See Gelos and Werner (1999) for an argument why the Mexican banks' reliance on real estate as collateral exacerbated their exposure to macroeconomic shocks.

[20] See OECD (1999), p.71.

banking system have been 15 and 35 percent, respectively, much higher than what can be expected for prudential reasons.

Depositor threat

41. **If depositors punish risky behavior by banks, this may induce a conservative bank asset management.** Martínez and Schmukler (1999) provide international evidence that this is indeed the case.[21] Using bank panel data from Argentina, Chile and Mexico, they find that even small, insured depositors withdraw money from risky banks.

42. **There are incentives for the depositors to punish risky behavior by banks in Bulgaria.** The currency board arrangement limits the lender-of-last-resort function of the BNB, and the memories of the banking crisis are still alive. In addition, the new deposit insurance scheme that was introduced in 1998 protects most depositors up to BGN 5,000, without full coverage.

43. **However, this does not seem to have a substantial effect on bank lending.** To the extent that the smaller banks are seen as less likely to be bailed out by the government in case of difficulties, they may be the ones to be more subject to depositors' discipline.[22] Accordingly, if the disciplining effect exerted by depositors is important, we should *ceteris paribus* observe a more conservative asset management by smaller institutions. This is not the case for Bulgaria – the correlation between the ratio of loans to assets and total assets is not significantly different from zero. Moreover, when the State Savings Bank (SSB) was given full deposit insurance during the banking crisis, this did not result in a noticeable change in the structure or volume of deposits, indicating that this factor is not likely to be the decisive one explaining the conservative banking practices prevalent in Bulgaria.

E. Policy Implications

44. **While it cannot be in the interest of Bulgaria to promote a return to lax lending practices, policies to foster sound financial intermediation can be beneficial for growth.** Tight controls of risks in the banking system are particularly important in the context of a currency board with a very limited lender-of-last resort facility, and when it comes to bank regulation, it is good to err on the side of caution. However, the discussion above revealed a number of areas where policy measures could be implemented to promote the development of healthy lending without jeopardizing the stability of the banking system:

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[21] See Shy (1998) for a theoretical analysis.

[22] This is pointed out in Domaç and Ferri (1999).

- **Competition in the financial sector needs to be promoted through a continuation of privatization of banks.** The authorities are taking steps to complete the privatization of the banking system. This is expected to increase the incentives in the banking sector to maximize profits by reducing inefficiencies in bank operations and investing in the acquisition of skills. Moreover, the engagement of strategic foreign investors is likely to accelerate the adoption of modern practices in the banking sector.

- **Creditors' rights could be improved further, the enforcement of existing laws could be enhanced, and processes streamlined.** In order to accelerate and improve the handling of bankruptcy cases, the authorities have drafted amendments to the Commercial Code. Quick adoption of these amendments would be a step in the right direction. Moreover, a thorough and broader review of existing practices governing insolvency and liquidation procedures with a view of strengthening creditors' rights would be desirable. Another important measure would be the establishment of a body within the Ministry of Justice that supervises and trains trustees in bankruptcy cases.[23] Courts' capacities to handle these cases need to be strengthened through increased training of judges and improvement of caseload management.

- **The flow of information and transparency in the financial sector could be promoted further.** The central credit registry is about to be operational fully. In the area of accounting standards, existing requirements, particularly in the area of disclosure, may need to be strengthened and be enforced more stringently. The development of the accounting profession could be encouraged and the tax administration personnel could be trained further accordingly.

- **The provision in the Criminal Law penalizing the extension of loans without "proper security" could be removed or clarified.** Careful consideration should be given to the removal of this provision in the Criminal Code. At the minimum, the law could be clarified so as not to criminalize reasonable lending practices.

- **The development of short-term money markets could be promoted.** The deeper money markets are, the lower banks' precautionary holdings of liquidity need to be. The development of markets for certificates of deposit, commercial paper, treasury bills, interbank lines, and bankers acceptances would contribute to increased levels of financial intermediation.[24]

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[23] According to the OECD (1999, p.71), "Strengthening the rights of commercial creditors is indeed the most effective means of promoting a greater and healthier involvement of banks in financing the real economy."

[24] See Caprio and Honohan (1993).

- **The remaining obstacles for the establishment of a working agricultural land market could be removed.** The existing system of notarizing deeds needs to be replaced with a parcel-based registration system linked to a unified cadastre. A registration and Cadastre Law is currently being discussed in parliament. Its adoption would represent an important step in the right direction. After its adoption, this and other laws regulating the land market need to be implemented consistently, which requires the building of adequate institutional capacity.

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This appendix describes the methodology used in estimating the market structure of the banking system in Bulgaria, and presents the technical results.

The methodology for estimating the market structure

1. **The methodology is based on microeconomic theory that links total revenue to the marginal cost curve** (see Panzar and Rosse (1987)). When input prices increase and shift the marginal cost curve up, a monopoly's total revenue declines. On the other hand, in a perfectly competitive market, a similar increase would lead to a one-to-one increase in total revenues, because those firms that cannot increase their revenues fully start incurring losses and have to exit the market. In between these two extremes is the case of an oligopolistic market, where, as marginal cost curve shifts upward, total revenues increase, but less than one-to-one with the percent increase in costs. More specifically, let

$$y = q(x, z),$$

where, y is total revenue, x is a vector of input factor prices, z is all other factors that affect revenue—mostly cost and demand side variables—and q is the revenue function. Panzar and Rosse show that if the sum of the input factor price coefficients are less than zero, then it means that as costs increase, total revenue declines, indicating a monopolistic market structure. Instead, if the sum of the input coefficients is between zero and one, then the firms behave like oligopolies. Finally, if the sum of the input coefficients is one, then firms increase their revenue one to one with their costs, and thus operate in a fully competitive environment. Any sum that is larger than one is not compatible with this methodology, and indicates a misspecification. All these arguments are for elasticities, therefore the variables are all in natural logs.

2. **In the case of the banking sector, the production function of the banking services are defined as follows:**

$$tr_{it} = c + b_i i_{it} + b_w w_{it} + b_o o_{it} + b_z z_{it}, \qquad i = 1, 2, \ldots N, \quad t = 1, 2, \ldots T$$

where, tr_{it} is the total revenue, i_{it} is the unit price of funds, w_{it} is the unit labor cost, o_{it} is the unit price of other costs, z_{it} is all other variables that affect total revenue, and b is the vector of coefficients of (see Coccorese (1998) for an application to the Italian banking system).[25] Specifically, unit price of funds is calculated as the ratio of total interest expense of a bank to total deposits; unit labor cost is calculated as the ratio of total salaries and social security contributions to total assets; and unit price of other costs is the ratio of other operating costs to total assets. Other variables consist of total deposits (*td*) to use as a proxy for demand; total administered funds (*taf*) to capture the fact that the larger the funds are, the larger on average total revenues should be; and the risk capital to administered fund ratio (*rcaf*), and the loans to administered funds ratio (*laf*) to proxy for risk. All variables are in natural logarithms.

[25] Most of the variables are similar to those in Coccorese (1998).

3. **Tests are as follows:** Let $H = b_i + b_w + b_o$, where the three coefficients correspond to the unit cost of funds variable, the unit labor cost variable, and the unit price of other costs variable, respectively. If the null hypothesis that H is less than or equal to zero is rejected, this implies that the market structure is not monopolistic. In addition, if the null hypothesis that H is between zero and one is rejected, then the market structure is not oligopolistic either. However, in addition, if the null hypothesis that H is equal to 1 is rejected, then the results would be inconsistent with the theory, implying that there is misspecification in the model or the estimated equation.

Results

4. **The model is applied to a panel data set on the Bulgarian banks.** The data set contains bank specific data on all Bulgarian banks that were in operation in 1998-99. For estimation, standard panel data estimation techniques are used, which include fixed and random effects.

5. **The results show that Bulgarian banks behave oligopolistically** (Table 3). The sum of the input factor price coefficients of the panel data estimation are significantly larger than zero, allowing us to reject the hypothesis that the banks behave monopolistically. At the same time, the sum of the coefficients is smaller than one, allowing us to reject also perfect competition in the banking system. Both factor prices of funds and of other costs are significantly greater than zero, while unit labor costs are not correlated with total revenues. The results from fixed and random effects do not differ substantially.

6. **Other coefficient estimates indicate that the level of risk and the size of the banks in addition to what is captured by their deposit base are not important in determining their total revenues.** This can be seen from the coefficient estimates of the two risk measures—the ratio of risk capital to total administered funds (*rcaf*), and the ratio of loans to total administered funds (*laf*)—which are very close to zero, and insignificant. This is not surprising, given that the sample period coincides with good banking supervision and a period of cautious banking.

Table 3. Bulgaria: Market Structure Regression Results, 1998-99

	Full sample	Insignificant coefficients excluded
Variables 1/	Coefficient estimates 2/	
constant	0.89	1.26
	(0.61)	(0.43)
i	0.42	0.43
	(2.15)	(3.52)
w	0.42	0.30
	(1.61)	(2.72)
o	-0.38	...
	(1.03)	...
td	0.54	0.65
	(2.11)	(5.99)
taf	-0.03	...
	(0.20)	...
rcaf	0.01	...
	(0.08)	...
laf	0.02	...
	(0.09)	...
R2	0.99	0.96
	Market structure tests 3/	
Monopolistic (Ho: H<= 0)	Not Reject	Reject
Oligopolistic (Ho: 0 < H < 1)	Not Reject	Not Reject
Perfect competition (Ho: H >= 1)	Reject	Reject
Misspecified (Ho: H > 1)	Reject	Reject

Source: staff calculations.

1/ The dependent variable is total revenue (tr). The independent variables are as follows: the unit price of funds (i), the unit labor cost (w), the unit price of other costs (o), total deposits (td), total administered funds (taf), the risk capital to administered fund ratio (rcaf), and the loans to administered funds ratio (laf). All variables are in natural logarithms.

2/ Results pertain to random panel data estimation, with a sample from 1998 to 1999. Regular ordinary least squares results are similar. Fixed effects results are all insignificant, given the shortness of the time series dimension. These results are not reported; however, they can be requested from the author. T-statistics are in paranthesis.

3/ H = b_i + b_w + b_o, where b_x is the coefficient estimate of variable x. The tests use 10 percent significance level.

Table A1. Bulgaria: National Accounts, 1991-95
(Old classification) 1/

	1991 2/	1992 2/	1993 2/	1994	1995
	(Gross value added at basic prices and GDP) (In current prices, in millions of leva)				
Agriculture and forestry	20.9	23.3	29.7	60.4	111.4
Industry	53.91	78.4	97.71	157.4	272.7
Manufacturing and mining	46.06	63	75.45	120.9	212.5
Construction	6.35	11.7	16.16	25.1	41.6
Other	1.5	3.7	6.1	11.4	18.7
Services	69.5	92	151.7	272.4	450.2
Trade	11.8	18	26.6	52.9	101.8
Transport	7.4	10.1	13.9	25.2	37.5
Communications	1.6	2.4	4.8	8.8	12.2
Other (non-material)	48.7	61.5	106.4	185.4	298.7
Taxes on products	11.4	16.6	27.1	26.9	24.5
Adjustments	-20	-9.5	-7.3	8.5	21.4
GDP at market prices	135.71	200.8	298.91	525.6	880.3
Household consumption	73.2	131.2	218.9	389.1	622.1
Government consumption	26.1	41.3	57.1	90.3	134.4
Gross fixed capital formation	24.6	32.6	38.7	72.3	134.3
Changes in inventories	6	7.4	7	-23.0	3.5
Net exports	5.8	-11.7	-22.8	-3.3	-14.0
Exports	59	94.6	114.2	236.8	393.2
Imports	53.2	7	137	240.1	407.2
Statistical discrepancy	...	...	...	...	...
	(Growth rate in prices of previous year, in percent)				
GDP	-11.7	-7.3	-1.5	1.8	2.1
Agriculture and forestry	4.3	-14.8	-30.2	9.4	14.5
Industry	-21	-6.4	-6.2	5.9	-5.4
Services	-26.9	-20.7	0.6	-3.1	4
Household consumption	-15.7	1	-0.7	-2.6	-1.8
Government consumption	-10.3	-14.6	-12.6	-11.5	-7.4
Gross fixed capital formation	-19.9	-7.3	-17.5	1.1	8.8
	(Percent change)				
Memorandum items:					
GDP implicit deflator	238.6	59.6	15.1	72.7	64.1
	(In percent of GDP)				
Agriculture and forestry	15.4	11.6	9.9	11.5	12.7
Industry	39.7	39.0	32.7	29.9	31.0
Services	51.2	45.8	50.8	51.8	51.1
Taxes on products	8.4	8.3	9.1	5.1	2.8
Adjustment	-14.7	-4.7	-2.4	1.6	2.4
Household consumption	53.9	65.3	73.2	74.0	70.7
Government consumption	19.2	20.6	19.1	17.2	15.3
Gross fixed investment	18.1	16.2	12.9	13.8	15.3
Net exports	4.3	-5.8	-7.6	-0.6	-1.6
Exports	43.5	47.1	38.2	45.1	44.7
Imports	39.2	52.9	45.8	45.7	46.3

Sources: National Statistical Institute and staff estimates.

1/ In 1996, the classification of activities changed.
2/ Including holding gains.

Table A2. Bulgaria: National Accounts, 1996-99
(New classification)

	1996	1997	1998	1999 Q1- Q3 1/
	(Gross value added at basic prices and GDP)			
	(In current prices, in millions of leva)			
Agriculture and forestry	253.7	4,062.7	4,045.4	2,558.4
Fishing	0.7	6.2	7.1	...
Industry	497.9	4,316.3	5,508.8	3,965.8
Mining and quarrying	29.2	344.7	294.0	237.2
Manufacturing	345.8	2,857.6	3,664.3	2,541.8
Electricity, gas and water supply	52.6	689.3	832.9	647.8
Construction	70.2	424.6	717.6	539.0
Services	898.9	6,915.5	9,649.1	7,659.7
Trade, repair of motor vehicles, personal and household appliances	179.6	1,304.9	1,470.3	992.1
Transport	92.6	814.4	1,025.7	677.6
Communications	30.6	340.6	551.6	557.5
Financial intermediation and insurance	143.9	398.2	407.2	346.9
Other services 2/	17.6	139.6	320.2	5,085.7
Total of economic activity groupings	1,650.4	15,294.5	19,203.2	14,183.8
Adjustments	98.3	1,760.7	2,373.8	1,937.1
GDP at market prices	1,748.7	17,055.2	21,577.0	16,120.9
Household consumption	1,340.2	11,981.7	15,733.7	12,296.0
Government consumption	207.5	2,188.1	3,255.3	2,470.5
Gross fixed capital formation	238.5	1,841.0	2,495.6	2,317.5
Changes in inventories	-91.6	100.8	685.6	661.5
Net exports	54.1	943.6	-228.0	-1,139.0
Exports of goods and services	1,100.0	10,555.9	9,755.5	7,282.3
Imports of goods and services	1,045.8	9,612.2	9,983.5	8,421.3
Statistical discrepancy	0.0	0.0	-365.2	-485.5
	(Growth rate in prices of previous year, in percent)			
GDP at market prices	-10.9	-6.9	3.5	2.0
Agriculture and forestry	-7.4	32.9	1.4	6.7
Industry	-11.8	-11.3	4.3	-4.0
Services	-9.3	-19.3	0.5	2.7
Household consumption	-2.1	-15.7	8.1	1.7
Government consumption	-28.7	-11.5	4.1	7.2
Gross fixed capital formation	-52.8	-23.9	16.4	28.9
		(Percent change)		
Memorandum items:				
GDP implicit deflator	122.9	949.1	22.2	1.5
		(In percent of GDP)		
Agriculture and forestry	14.5	23.8	18.8	15.9
Industry	28.5	25.3	25.5	24.6
Services	51.4	40.6	44.7	47.5
Total of economic activity groupings	94.4	89.7	89.0	88.0
Adjustments	5.6	10.3	11.0	12.0
GDP at market prices	100.0	100.0	100.0	100.0
Final consumption	88.5	83.1	88.0	91.6
Individual consumption	82.8	76.9	79.8	83.3
Households expenditures	76.3	69.9	72.4	75.8
NPISHs expenditures	0.3	0.4	0.5	0.5
Government expenditures	6.2	6.6	6.9	7.0
Collective consumption	5.7	6.2	8.2	8.3
Gross fixed capital formation	13.6	10.8	11.6	14.4
Changes in inventories	-5.2	0.6	3.2	4.1
Net exports	3.1	5.5	-1.1	-7.1
Exports of goods and services	62.9	61.9	45.2	45.1
Imports of goods and services	59.8	56.4	46.3	52.2
Statistical discrepancy	*0.0*	*0.0*	*-1.7*	*-3.0*

Sources: National Statistical Institute and staff estimates.
In 1996, the classification of activities changed.

1/ Preliminary data.
2/ Includes: hotels and restaurants; real estate, renting and business activities; public administration and defense.

Table A3: Bulgaria: Selected Transition Economies: Cumulative Change in GDP, 1989-99

	1989-99	Peak Decline Since 1989 1/
Albania	-7	-40
Bulgaria	-34	-37
Czech Republic	-5	-16
Hungary	-1	-18
Poland	27	-14
Romania	-28	-29
Average (unweighted)	-8	-26

Source: WEO.

1/ Compares the GDP in the year of its lowest level since the beginning of the transition with

Table A4. Bulgaria: Industrial Sector, 1991-95 1/

(Old classification) 2/

	1991 3/	1992 3/	1993 3/	1994 3/	1994	1995
	(In current prices, in millions of leva)					
Industry value added						
Total	53.9	78.4	97.7	182.3	157.4	272.7
Manufacturing and mining	46.1	63.0	75.5	145.5	120.9	212.5
Construction	6.4	11.7	16.1	25.4	25.1	41.6
Unincorporated activities 4/	1.4	3.7	6.1	11.4	11.4	18.7
State	50.4	70.0	79.8	47.8	122.9	197.1
Manufacturing and mining	45.0	61.2	70.3	135.5	110.9	181.9
Construction	5.4	8.8	9.5	12.3	12.0	15.3
Private	3.5	8.4	17.9	34.5	34.5	75.6
Manufacturing and mining	1.1	1.8	5.2	10.0	10.0	30.6
Construction	1.0	2.9	6.6	13.1	13.1	26.3
Unincorporated activities 4/	1.4	3.7	6.1	11.4	11.4	18.7
	(Growth rate in prices of previous year, in percent)					
Total	...	6.4	-6.2	6.0	...	-5.4
Manufacturing and mining	...	10.1	-6.6	6.9	...	-8.0
Construction	...	12.5	-7.3	-0.3	...	2.2
Unincorporated activities 4/	...	27.9	3.5	10.8	...	6.5
State	...	-9.2	-12.7	3.7	...	-16.2
Manufacturing and mining	...	-10.4	-10.6	6.7	...	-15.6
Construction	...	0.7	-27.1	-18.5	...	-21.1
Private	...	33.6	47.7	16.2	...	33.1
Manufacturing and mining	...	0.8	133.5	10.1	...	76.3
Construction	...	79.7	52.5	26.1	...	23.3
Unincorporated activities 4/	...	27.9	3.5	10.8	...	6.5
	(Percentage)					
Share of economy (gross value added)						
Total industry	37.4	40.5	35.0	35.4	32.1	32.7
Of which:						
Manufacturing and mining	31.9	32.6	27.0	28.3	24.7	25.5
Construction	45.0	6.0	5.8	4.9	5.1	5.0
Unincorporated activities 4/	1.0	1.9	2.2	2.2	2.3	2.2
Share of state sector						
in total industry	93.5	89.3	81.7	81.1	78.1	72.3
Manufacturing and mining	97.6	97.1	93.1	93.1	91.7	85.6
Construction	84.4	75.2	59.0	48.4	47.8	36.7
Share of private sector						
in total industry	6.5	10.7	18.3	18.9	21.9	27.7
Manufacturing and mining	2.4	2.9	6.9	6.9	8.3	14.4
Construction	15.6	24.8	41.0	51.6	52.2	63.3
Unincorporated activities 4/	100.0	100.0	100.0	100.0	100.0	100.0

Sources: National Statistical Institute and staff estimates.

1/ Includes state and private sectors, using the SNA methodology.

2/ The classification changed in 1996.

3/ Including holding gains/losses.

4/ Self-employed and other small private unincorporated firms engaged in market production; included in other headings from 1997.

Table A5. Bulgaria: Industrial Sector, 1996-99 1/

(New Classification) 2/

	1996 5/	1997	1998 3/	1999 Q1-Q3 3/
	(In current prices, in millions of leva)			
Industry value added				
Total	497.9	4,316.3	5,508.8	3,965.8
Mining and quarrying	29.2	344.7	294.0	237.2
Manufacturing	345.8	2,857.6	3,664.3	2,541.8
Electricity, gas and water supply	52.6	689.3	832.9	647.8
Construction	70.2	424.6	717.6	539.0
Public	374.0	2,832.7	3,075.9	1,859.8
Mining and quarrying	28.2	330.3	274.2	216.2
Manufacturing	270.7	1,688.4	1,773.5	837.8
Electricity, gas and water supply	52.6	688.2	831.6	646.9
Construction	22.6	125.8	196.7	158.9
Private	123.8	1,483.6	2,432.8	2,106.0
Mining and quarrying	1.0	14.4	19.8	21.0
Manufacturing	75.1	1,169.2	1,890.7	1,704.0
Electricity, gas and water supply	0.0	1.1	1.3	1.0
Construction	47.7	298.9	520.9	380.0
	(Growth rate in prices of previous year, in percent)			
Total	-12.9	-11.3	4.3	-4.0
Mining and quarrying	...	-7.3	3.0	-7.6
Manufacturing	...	-14.9	6.5	-4.1
Electricity, gas and water supply	...	23.7	-5.2	-3.8
Construction	-20.8	-21.4	5.8	-2.3
Public	-15.9	-24.8	-5.9	-19.4
Mining and quarrying	...	-7.9	0.1	-10.1
Manufacturing	...	-35.9	-8.0	-29.7
Electricity, gas and water supply	...	23.6	-5.2	-3.8
Construction	-30.7	-24.6	2.5	-0.7
Private	4.7	29.4	23.8	16.5
Mining and quarrying	...	10.9	70.4	22.9
Manufacturing	...	60.9	27.6	21.7
Electricity, gas and water supply	...	197.3	-5.1	5.7
Construction	-15.1	-19.9	7.2	-3.0
	(Percentage)			
Share of economy (gross value added)				
Total industry	30.2	28.2	28.7	28.0
Of which:				
Mining and quarrying	1.8	2.2	1.5	1.7
Manufacturing	20.9	18.7	19.1	17.9
Electricity, gas and water supply	3.2	4.5	4.4	4.6
Construction	4.3	2.8	3.7	3.8
Share of public sector				
in total industry	75.1	65.6	55.8	46.9
Mining and quarrying	96.7	95.8	93.3	91.2
Manufacturing	78.3	59.1	48.4	33.0
Electricity, gas and water supply	99.9	99.8	99.8	99.9
Construction	32.1	29.6	27.4	29.5
Share of private sector				
in total industry	24.9	34.4	44.2	53.1
Mining and quarrying	3.3	4.2	6.7	8.8
Manufacturing	21.7	40.9	51.6	67.0
Electricity, gas and water supply	0.1	0.2	0.2	0.1
Construction	67.9	70.4	72.6	70.5

Sources: National Statistical Institute and staff estimates.

1/ Includes state and private sectors, using the SNA methodology.
2/ The classification changed in 1996.
3/ Preliminary data

Table A6. Bulgaria: Services Sector: Total, State, and Private, 1991-99

	1991 1/	1992 1/	1993 1/	1994	1995	1996	1997	1998	1999 Q1-Q3 2/
				(In current prices, in millions of leva)					
Value added in service									
Total	70	92	152	272	450	899	6,915	9,649	7,660
Trade	12	18	27	53	102	180	1,305	1,470	992
Transport	7	10	14	25	38	93	814	1,026	678
Communications	2	2	5	9	12	31	341	552	557
Other 4/	49	62	106	185	299	596	4,456	6,602	5,433
State	55	62	85	150	199	347	2,723	3,814	2,932
Trade	10	11	12	20	26	37	286	316	141
Transport	7	9	11	19	23	56	481	533	309
Communications	2	2	5	9	12	28	310	431	425
Other 4/	37	41	58	102	138	225	1,646	2,534	2,057
Private	14	30	66	123	257	552	4,192	5,836	4,728
Trade	2	8	14	33	76	142	1,019	1,154	852
Transport	0	2	3	7	15	37	333	493	369
Communications	...	...	...	0	0	2	30	121	132
Other 4/	12	21	49	83	166	299	2,648	3,884	3,203
				(Growth rate in prices of previous year, in percent)					
Total	-26.9	-20.7	0.6	-3.1	4.0	-9.3	-19.3	0.5	2.7
Trade	-19.2	-13.8	0.4	7.6	2.1	-21.5	-33.4	6.9	-1.1
Transport	3.9	3.8	8.5	3.1	39.8	0.0	0.5	-9.8	-11.4
Communications	2.9	5.7	8.0	0.9	32.5	8.1	5.5	12.6	14.8
Other 4/	-34.4	-28.4	-0.9	-6.7	-1.7	-7.0	...	...	...
State	-37.9	-27.4	-9.8	-8.3	-10.5	-3.3	-20.7	-4.9	3.1
Trade	-44.3	-38.3	-22.0	-9.6	-25.5	-20.2	-30.1	-0.4	-36.9
Transport	-2.8	-6.7	-2.2	-2.2	21.6	-18.6	2.4	-21.9	-19.1
Communications	2.9	5.7	7.2	0.7	29.3	39.0	2.4	-8.0	8.5
Other 4/	-44.7	-30.0	-9.2	-9.8	-16.7	-1.2	...	...	...
Private	15.4	51.6	22.4	3.7	24.3	-5.9	-18.5	4.0	2.5
Trade	87.0	89.5	32.0	22.1	19.2	-21.4	-34.2	8.9	8.6
Transport	139.8	160.5	69.7	19.3	91.6	-14.1	-2.4	7.8	-2.7
Communications	...	...	...	13.6	357.6	149.9	44.5	222.6	40.7
Other 4/	-2.0	-9.3	15.4	-3.0	20.6	-21.4	...	...	...
				(Percentage)					
Share of economy (gross value added)									
Total services	48.2	47.5	54.4	55.6	53.9	54.5	45.2	50.2	54.0
Trade	8.2	9.3	9.6	10.8	12.2	10.9	8.6	7.7	7.0
Transport	5.1	5.2	5.0	5.2	4.5	5.6	5.3	5.3	4.8
Communications	1.0	1.2	1.7	1.8	1.5	1.9	2.2	2.9	3.9
Other 4/	33.9	31.8	38.1	37.8	35.7	36.1	29.1	34.3	38.3
Share of state service in total service	79.3	67.8	56.3	55.0	44.1	38.6	39.4	39.5	38.3
Trade	81.4	58.3	45.9	38.4	25.8	20.8	21.9	21.5	14.2
Transport	94.6	85.1	75.5	73.9	60.0	60.5	59.1	51.9	45.6
Communications	100.0	100.0	100.0	98.9	97.0	92.7	91.1	78.2	76.3
Other 4/	75.8	66.5	54.4	55.1	46.2	37.8	36.9	38.4	37.9
Share of private service in total service	20.7	32.2	43.7	45.0	57.1	61.4	60.6	60.5	61.7
Trade	18.6	41.7	54.1	61.6	74.2	79.2	78.1	78.5	85.8
Transport	5.4	14.9	24.5	26.1	40.0	39.5	40.9	48.1	54.4
Communications	...	...	...	1.1	3.1	7.3	8.9	21.8	23.7
Other 4/	24.2	33.5	45.6	44.9	55.7	50.2	59.4	58.8	59.0

Sources: National Statistical Institute; and staff estimates.

1/ Including holding gains/losses.

2/ Preliminary data.

3/ From 1996, this row also includes repair of motor vehicles and personal and household appliances

4/ Includes: housing and municipal services; business services; science; education, culture and art; health and social security, sports recreation and tourism; finance, credit and insurance; government; and other sectors of non-material production.

Table A7. Bulgaria: Services by Branches, 1992-1999

(Old Classification) 1/

	1992	1993	1994	1995	1992	1993	1994	1995
	(Growth rate in prices of previous year, in percent)				(In current prices, in millions of leva)			
Gross value added - Total services	-26.9	0.6	-3.1	4.0	92.0	151.7	272.3	450.2
Transport	3.9	8.5	3.1	39.9	10.1	13.9	25.2	37.5
Communications	2.9	8.0	0.9	32.5	2.4	4.8	8.8	12.2
Trade	-19.2	0.4	7.6	2.1	18.0	-26.6	52.9	101.8
Business services	-51.7	176.6	0.0	-0.5	1.3	5.9	11.0	18.1
Housing, public utilities, and amenities	-5.0	2.1	-4.3	0.7	19.9	42.6	72.6	121.5
Sciences	-34.4	-22.8	-26.7	-22.8	1.7	2.1	2.9	3.5
Education	6.4	-2.1	-23.1	-10.8	7.8	12.1	17.2	25.0
Culture and arts	-13.2	5.6	-12.0	-4.5	1.1	1.9	3.2	5.0
Health, social welfare, sports, and tourism	0.1	2.2	-22.8	-11.0	6.7	10.7	15.6	22.6
Finance, credit, and insurance	-71.6	-22.7	20.6	-0.7	14.0	16.9	40.1	64.4
General government	6.8	2.5	-19.7	4.1	8.6	13.8	22.2	37.5
Other branches of non-material sphere	-27.4	-15.9	-10.1	19.3	0.3	0.3	0.6	1.1
Intermediate consumption	6.1	-5.3	11.9	13.8	62.0	86.3	172.8	291.6
Gross output	-16.2	-1.8	2.4	7.8	154.0	238.0	445.2	741.8
Memorandum items:								
Gross value added per employee (thousand leva)	-22.6	-1.6	-5.4	-4.3	70	115	203	324
Gross output per employee (thousand leva)	-11.2	-2.8	1.0	-0.8	118	180	332	534
Employment in services (1,000)	-5.6	1.0	1.4	3.8	1,308	1,321	1,339	1,390

(New Classification) 1/

	1996	1997	1998	1999 Q1-Q3 2/	1996	1997	1998	1999 Q1-Q3 2/
	(Growth rate in prices of previous year, in percent)				(In current prices, in millions of leva)			
Gross value added - Total services	-9.3	-19.3	0.5	2.7	898.9	6,915.5	9,649.1	7,659.7
Trade, repair of motor vehicles, personal and household appliances	...	-33.4	6.9	-1.1	179.6	1,304.9	1,470.3	992.1
Hotels and restaurants	...	21.3	16.4	...	19.7	222.7	396.5	...
Transport and communications	...	1.7	-3.2	-2.2	123.1	1,155.0	1,577.3	1,235.1
Transport	...	0.5	-9.8	-11.4	92.6	814.4	1,025.7	677.6
Communications	...	5.5	12.6	14.8	30.6	340.6	551.6	557.5
Financial intermediation and insurance	...	-74.6	-13.4	3.9	143.9	398.2	407.2	346.9
Real estate, renting and business activitie	...	-0.6	-2.6	...	290.1	2,525.9	3,495.3	...
- imputed rent of owner occupied dwell	...	0.7	-3.6	...	234.6	2,056.6	2,845.2	...
Public administration and defence, compulsory social security	...	-18.2	6.4	...	56.6	484.1	866.1	...
Education	...	-1.0	0.5	...	39.1	391.2	669.2	...
Health, social work and veterinary activiti	...	2.1	-1.6	...	29.2	293.9	446.9	...
Other community, social and personal service activities of NGO	...	-6.7	25.2	4.9	17.6	139.6	320.2	5,085.7
Intermediate consumption	...	-7.6	-4.5	3.8	578.7	5,466.4	6,755.9	5,308.4
Gross output	...	-14.7	-1.7	3.2	1,477.6	12,381.9	16,405.0	12,968.1
Memorandum items:								
Gross value added per employee (thousand leva)	10.6	-15.8	2.2	3.4	806.8	6,435.4	9,133.3	7,297.8
Gross output per employee (thousand leva)	...	-11.2	0.0	3.9	1,326.2	11,522.4	15,528.1	12,355.5
Employment in services (1,000)	-19.8	-3.5	-1.7	-0.7	1,114.1	1,074.6	1,056.5	1,049.6

Sources: National Statistical Institute.

1/ Classification system changed in 1996.

2/ Preliminary data.

Table A8. Bulgaria: Total and Private Agricultural Production, 1991-99

	1991	1992	1993	1994	1995	1996	1997	1998	1999 Q1-Q3
					(In millions of leva)				
Total agriculture									
Gross output	37.2	51.1	69.8	132.8	236.3	561.7	8,316.8	8,258.3	5,279.9
Crops	17.6	24.2	31.3	60.9	108.2	231.8	3,602.6	2,908.6	...
Livestock	14.9	22.1	33.7	62.9	113.0	196.0	2,858.2	3,307.9	...
Services and other	4.7	4.8	4.8	9.0	15.1	48.1	623.7	525.2	...
Secondary activities of households	...	...	...	...	...	85.8	1,232.3	1,516.5	...
Intermediate consumption	16.6	28.4	41.2	73.8	127.4	321.0	4,308.5	4,277.9	2,774.3
Gross value added	20.6	22.7	28.7	59.0	108.9	240.7	4,008.3	3,980.4	2,505.6
Private agriculture									
Gross output	10.3	25.6	44.5	101.1	178.1	534.6	8,111.5	8,121.2	5,205.8
Intermediate consumption	3.0	12.2	23.1	51.1	89.0	299.6	4,161.1	4,163.9	2,713.9
Gross value added	7.3	13.4	21.4	49.9	89.1	235.0	3,950.3	3,957.3	2,491.9
					(Growth rate in prices of previous year, in percent)				
Total agriculture									
Gross output	...	-6.3	-19.4	7.1	16.0	-11.5	14.2	0.0	3.4
Crops	...	0.2	-26.3	21.7	21.9	-22.6	35.7	-2.2	...
Livestock	...	-2.7	.8.0	-6.5	10.7	-3.0	0.3	4.9	...
Services and other	...	-41.5	-37.2	7.9	13.3	4.4	2.9	...	...
Secondary activities of households	...	...	...	...	...	...	-6.4	3.2	...
Intermediate consumption	...	5.4	-9.9	5.2	17.3	-14.8	-2.9	-1.1	-0.2
Gross value added	...	-15.7	-31.3	10.0	14.4	-7.7	37.1	1.2	7.2
Private agriculture									
Gross output	...	55.2	-5.7	22.5	11.8	-9.8	16.3	0.7	3.7
Intermediate consumption	...	251.8	13.5	28.7	16.4	-13.2	-0.5	-0.6	0.3
Gross value added	...	15.0	-23.2	15.8	7.0	-6.4	37.7	2.1	7.2

Sources: National Statistical Institute; and staff estimates.

1/ According to National Classification of Economic Activities.

Table A9. Bulgaria: Production and Average Yields of Selected Agricultural Crops, 1988-99

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999 1/
						(Production in thousand of tons)						
Wheat	4,743	5,425	5,292	4,497	3,443	3,618	3,754	3,435	1,802	3,575	3,203	2,637
Maize	1,557	2,265	1,221	2,775	1,742	983	1,384	1,817	1,042	1,659	1,303	1,719
Barley	1,313	1,572	1,387	1,502	1,195	933	1,143	1,173	457	810	717	652
Sunflower seeds	374	458	389	434	595	432	602	767	526	438	524	610
Sugar beets	626	966	584	856	304	95	112	157	87	79	62	53
Tobacco	90	65	57	57	53	36	26	12	31	49	39	34
Tomatoes	775	837	813	610	413	325	461	515	306	227	469	428
Green peppers	226	175	197	206	199	153	218	252	206	174	233	198
Potatoes	358	554	433	498	566	357	497	649	319	463	478	566
Apples	335	458	411	145	221	110	76	149	204	161	129	92
Peaches	63	99	80	72	76	54	57	72	69	50	42	39
Cherries	73	83	72	54	66	32	48	75	57	36	34	32
Grapes	922	743	731	748	787	482	516	699	661	636	396	371
						(Average yield - tons/hectare)						
Wheat	4.01	4.77	4.55	3.74	3.11	1.84	2.84	2.91	1.88	2.95	2.81	2.73
Maize	3.17	4.00	2.87	4.92	2.81	1.86	2.72	3.76	2.18	3.58	2.73	3.78
Barley	3.80	4.36	3.85	3.90	3.05	2.57	2.92	2.95	1.75	2.78	2.47	2.56
Sunflower seeds	1.57	1.90	1.39	1.61	1.25	0.92	1.21	1.27	1.05	0.97	0.97	1.03
Sugar beets	16.08	24.58	16.67	23.36	17.78	9.30	13.90	17.10	10.40	15.58	14.92	16.77
Tobacco	1.24	1.08	1.34	1.31	1.27	1.14	1.15	1.41	1.34	1.50	1.15	1.32
Tomatoes	25.41	27.18	29.14	24.83	23.84	18.80	18.40	16.80	16.90	11.38	16.64	14.47
Green peppers	14.41	12.43	14.36	12.71	12.80	10.89	11.40	11.70	12.10	9.99	11.3	9.83
Potatoes	9.73	13.68	10.47	11.66	11.80	9.01	10.10	11.50	7.52	10.37	9.37	10.83
Apples	11.20	16.69	15.39	3.78	7.71	4.15	2.39	4.47	9.02	6.76	6.56	4.41
Peaches	7.06	10.61	7.51	6.34	5.99	4.80	3.55	3.00	4.70	3.36	3.62	3.45
Cherries	3.31	3.91	3.06	2.19	2.87	1.66	1.75	2.66	2.52	1.69	2.18	2.16
Grapes	5.80	4.61	4.46	4.68	4.95	3.69	3.71	5.23	5.52	5.32	3.18	3.08

Source: National Statistical Institute.

1/ Preliminary

Table A10. Bulgaria: Production and Yields of Selected Livestock Products, 1988-98

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Milk, total (million liters)	2,493	2,438	2,385	2,005	1,806	1,531	1,420	1,404	1,390	1,436	1,589
Cows	2,123	2,090	2,060	1,728	1,560	1,316	1,176	1,142	1,140	1,172	1,298
Sheep	294	277	263	219	180	144	129	119	111	107	106
Goats	76	71	62	58	66	71	115	143	139	157	185
Eggs, total (million)	2,874	2,726	2,460	1,866	1,639	1,624	1,751	1,955	1,734	1,583	1,690
Wool, greasy (thousand tons)	31	29	28	23	19	14	12	9	9	7	8
Meat in carcass, total (thousand tons)	800	820	791	659	650	565	445	469	498	448	467
Of which:											
Cattle	130	130	126	115	154	122	96	66	80	57	56
Sheep and goats	91	87	73	78	84	65	56	50	60	50	53
Pigs	394	413	408	362	319	277	207	256	252	227	248
Poultry	183	188	182	100	89	97	82	92	99	101	105
Other	2	2	2	4	4	4	4	5	7	13	5
Milk yield per cow (liters)	3,397	3,354	3,367	2,968	2,833	2,783	2,985	3,135	3,074	3,102	3,149
Eggs per hen	170	173	170	157	161	164	185	181	177	175	184
Wool clip per sheep (grams)	4,192	4,097	4,125	3,628	3,485	3,392	3,179	3,232	3,187	3,253	3,236

Source: National Statistical Institute.

Table A11. Bulgaria: Acquisition of Tangible Fixed Assets, 1990-98 1/

	1990	1991	1992	1993	1994	1995	1996 2/	1997	1998
				(In current prices, in millions of leva)					
Total	9.793	24.778	43.627	43.547	84.208	125.876	268.207	2363.918	3388.147
Agriculture 3/	0.96	1.826	1.978	1.164	1.543	2.889	7.077	66.535	106.966
Forestry	0.005	0.006	0.01	0.008	0.01	0.092	...	...	...
Mining and quarrying 4/	...	...	...	...	...	...	9.238	73.105	109.636
Manufacturing	4.735	13.895	22.438	20.006	30.932	38.367	58.392	469.049	919.002
Construction	0.443	0.646	1.374	1.925	1.717	4.905	6.587	267.301	241.622
Electricity, gas, and water supply	...	...	...	...	...	...	36.105	164.991	259.950
Transport 5/	0.792	1.197	3.279	3.024	7.84	9.293	37.658	685.137	735.027
Trade	0.376	1.778	5.725	5.901	19.033	10.058	20.065	147.098	403.785
Hotels and restaurants	...	...	...	...	...	...	4.659	50.118	75.527
Communications	0.233	0.571	0.674	0.899	2.977	6.78	...	...	...
Financial intermediation	...	...	...	...	...	...	32.874	213.002	118.822
Other in material sphere	0.065	0.124	0.281	0.546	0.421	0.714	...	...	...
Agriculture 3/	...	...	...	...	...	...	37.540	44.652	76.689
Public administration; compulsory social security	...	...	...	...	...	...	6.765	76.781	194.906
Housing, municipal, and consumer services	1.606	3.497	4.847	5.289	6.126	19.185	...	...	...
Of which:									
Housing	0.926	2.146	2.89	2.54	2.809	13.461	...	...	...
Science	0.06	0.082	0.256	0.152	0.166	0.25	...	...	...
Health/sport/leisure	0.164	0.385	0.687	1.232	1.586	3.101	3.351	28.186	36.031
Education	0.111	0.365	0.777	0.876	1.487	2.326	3.020	38.842	51.311
Culture and arts	0.035	0.029	0.067	0.189	0.396	0.659	...	...	...
Other in non-material sphere	0.208	0.377	1.134	2.336	9.974	27.257	...	...	...
Other community, social, and personal service activities	...	...	...	...	...	...	4.877	39.121	58.872
				(In percent of GDP)					
Total	21.6	18.3	21.7	14.6	16.0	14.3	15.3	13.9	15.7
Agriculture 3/	2.1	1.3	1.0	0.4	0.3	0.3	0.4	0.4	0.5
Forestry	0.0	0.0	0.0	0.0	0.0	0.0	...	...	...
Mining and quarrying 4/	...	...	...	...	...	...	0.5	0.4	0.5
Manufacturing	10.4	10.2	11.2	6.7	5.9	4.4	3.3	2.8	4.3
Construction	1.0	0.5	0.7	0.6	0.3	0.6	0.4	1.6	1.1
Electricity, gas, and water supply	...	...	...	...	...	...	2.1	1.0	1.2
Transport 5/	1.7	0.9	1.6	1.0	1.5	1.1	2.2	4.0	3.4
Trade	0.8	1.3	2.9	2.0	3.6	1.1	1.1	0.9	1.9
Hotels and restaurants	...	...	...	...	...	...	0.3	0.3	0.4
Communications	0.5	0.4	0.3	0.3	0.6	0.8	...	...	...
Financial intermediation	...	...	...	...	...	...	1.9	1.2	0.6
Other in material sphere	0.1	0.1	0.1	0.2	0.1	0.1	...	...	...
Real estate, renting, and business activities 6/	...	...	...	...	...	...	2.1	0.3	0.4
Public administration; compulsory	...	...	...	...	...	...	0.4	0.5	0.9
social security	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Housing, municipal, and	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
consumer services	3.5	2.6	2.4	1.8	1.2	2.2	...	...	...
Of which:									
Housing	2.0	1.6	1.4	0.8	0.5	1.5	...	...	...
Science	0.1	0.1	0.1	0.1	0.0	0.0	...	...	...
Health/sport/leisure	0.4	0.3	0.3	0.4	0.3	0.4	0.2	0.2	0.2
Education	0.2	0.3	0.4	0.3	0.3	0.3	0.2	0.2	0.2
Culture and arts	0.1	0.0	0.0	0.1	0.1	0.1	...	...	...
Other in non-material sphere	0.5	0.3	0.6	0.8	1.9	3.1	...	...	#VALUE!
Other community, social, and personal service activities	...	...	...	...	...	...	0.3	0.2	0.3
Memorandum item:									
GDP in millions of leva	45	136	201	299	526	880	1,749	17,055	21,577

Source: National Statistical Institute.

1/ These data do not equal gross fixed investment, as they include purchases of existing assets.

2/ Based on new National Classification of Economic Activities; sectoral data are not directly comparable to earlier periods.

3/ Starting 1996, agriculture includes forestry.

4/ Until 1996, mining & quarrying was included in manufacturing.

5/ Includes communications starting 1996.

6/ The classifications "housing" used prior to 1996 and "real estate, renting, and business activities" used thereafter do not match exactly.

Table A12. Bulgaria: Income Accounts, 1991-99

	1991 1/	1992 1/	1993 1/	1994 1/	1994	1995	1996	1997	1998	1999 Q3 2/	1991 1/	1992 1/	1993 1/	1994 1/	1994	1995	1996	1997	1998	1999 Q3 2/
	(In millions of leva)										(In percent of GDP)									
GDP	136	201	299	551	526	880	1,749	17,055	21,577	16,121	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Gross value added	156	210	306	542	517	859	1,650	15,294	19,203	14,184	...	...	...	...	...	...	...	...	...	...
Compensation of employees	56	106	156	239	239	369	646	5,885	8,474	6,594	41.3	53.0	52.2	43.4	45.4	41.9	36.9	34.5	39.3	40.9
Wages and salaries	43	75	112	171	171	267	465	4,216	6,005	4,660	31.3	37.3	37.5	31.1	32.6	30.4	26.6	24.7	27.8	28.9
Social contributions	14	32	44	67	67	101	181	1,669	2,469	1,934	10.0	15.7	14.7	12.2	12.8	11.5	10.3	9.8	11.5	12.0
Net taxes on production	9	14	19	21	21	14	14	108	190	154	6.8	6.7	6.3	3.7	3.9	1.6	-0.8	-0.6	-0.9	-0.9
Turnover taxes and excises 3/	12	17	28	28	28	25	...	...	...	...	8.8	8.5	9.2	5.0	5.2	2.9	...	...	...	...
Subsidies	3	4	9	7	7	11	15	109	190	154	2.0	1.8	2.9	1.3	1.3	1.2	0.8	0.6	0.9	0.9
Gross operating surplus	90	90	131	283	258	476	1,019	9,517	10,919	7,744	66.6	45.0	44.0	51.4	49.1	54.1	58.3	55.8	50.6	48.0
Consumption of fixed capital	19	26	40	54	54	77	143	1,158	...	...	14.0	12.9	13.3	9.7	10.2	8.7	8.2	6.8	...	...
Net operating surplus	60	42	50	142	117	243	656	5,050	...	...	44.0	21.0	16.9	25.7	22.2	27.6	37.5	29.6	...	...
Mixed income, net	12	22	41	88	88	156	220	3,309	...	...	8.6	11.1	13.8	15.9	16.6	17.7	12.6	19.4	...	...
Adjustments	20	10	7	9	9	21	98	1,761	2,374	1,937	-14.7	-4.7	-2.4	1.5	1.6	2.4	5.6	10.3	11.0	12.0
Import duties	1	4	9	15	15	20	38	368	390	233	0.7	2.0	3.0	2.7	2.9	2.3	2.2	2.2	1.8	1.4
Less Financial intermediation 4/	21	14	16	38	38	66	137	362	367	330	-15.5	-6.7	-5.5	-6.8	-7.1	-7.5	-7.9	-2.1	-1.7	-2.0
VAT	...	...	...	31	31	67	136	1,199	1,744	2,035	...	...	...	5.6	5.9	7.6	7.8	7.0	8.1	12.6
	(In millions of leva)										(Private share of total income generation, in percent)									
Of which:																				
Private sector																				
GVA at basic prices	25	51	106	207	207	423	856	9,641	12,242	9,333	16.2	24.4	34.5	38.2	40.1	49.2	51.9	63.0	63.7	65.8
Compensation of employees	2	7	20	41	41	75	138	1,875	3,152	2,702	3.2	6.5	12.5	17.0	17.0	20.3	21.3	31.9	37.2	41
Wages and salaries	2	5	15	31	31	54	104	1,375	2,276	1,962	3.8	6.3	13.0	18.1	18.1	20.4	22.4	32.6	37.9	42.1
Social contributions	0	2	5	9	9	20	33	499	876	741	1.5	7.0	11.2	14.0	14.0	20.1	18.5	29.9	35.5	38.3
Net taxes on production	...	...	...	...	...	0	0	18	6	5	...	...	...	...	...	-0.7	0.7	16.4	3.1	3.4
Tax on increase of salary	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Subsidies	...	...	...	...	...	0	0	19	6	5	...	...	...	...	...	0.9	0.9	17.7	3.1	3.4
Gross operating surplus	23	45	86	167	167	348	719	7,785	9,096	6,636	25.9	49.2	65.6	58.9	64.6	73.1	70.6	81.8	83.3	85.7
Consumption of fixed capital	2	5	9	17	17	30	65	809	...	...	10.0	19.2	23.7	31.9	31.9	38.7	45.6	69.9	...	...
Net operating surplus	10	17	36	62	62	162	434	3,666	...	...	16.4	40.9	70.4	43.8	53.1	66.7	66.2	72.6	...	...
Mixed income, net	12	22	41	88	88	156	220	3,309	...	...	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	(Structure of state GVA, in percent)										(Structure of private GVA, in percent)									
Gross value added at basic prices	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	100.0	100.0	100.0	100.0	100.0	100.0
Compensation of employees	45.6	69.9	78.7	64.4	70.0	71.3	64.1	70.9	76.4	80.2	7.1	13.4	18.4	19.6	19.6	17.7	16.1	19.5	25.7	29
Wages and salaries	34.3	49.2	56.2	45.6	49.6	51.7	45.5	50.2	53.5	55.6	6.3	9.1	13.8	15.0	15.0	12.9	12.2	14.3	18.6	21
Social contributions	11.3	20.7	22.4	18.8	20.5	19.7	18.6	20.7	22.9	24.6	0.8	4.3	4.6	4.5	4.5	4.8	3.9	5.2	7.1	8
Net taxes on production	-1.8	-2.1	-4.7	-2.1	-2.3	-2.4	-1.8	-1.6	-2.6	-3.0	...	...	...	...	...	...	...	...	...	...
Tax on increase of salary	0.4	0.4	0.3	0.2	0.2	0.1	0.1	...	...	...	...	...	...	...	...	...	...	...	...	...
Subsidies	2.3	2.5	5.0	2.3	2.5	2.6	1.8	1.6	2.6	3.0	...	...	...	...	...	...	...	...	...	...
Gross operating surplus	56.3	32.2	26.1	37.7	32.3	31.1	37.7	30.7	26.2	22.8	92.9	86.6	81.6	80.4	80.4	82.3	83.9	80.7	74.3	71.1
Consumption of fixed capital	14.4	14.7	17.5	11.9	12.9	11.4	9.8	...	...	...	7.5	9.7	8.9	8.3	8.3	7.0	7.6	8.4	...	...
Net operating surplus	41.9	17.5	8.6	25.9	19.4	19.7	27.9	...	...	...	38.9	33.5	33.6	29.9	29.9	38.3	50.7	38.0	...	...
Mixed income, net	...	...	...	...	...	...	...	...	...	...	46.4	43.4	39.1	42.3	42.3	37.0	25.6	34.3	...	...

Source: NSI

1/ Including holding gains/losses

2/ Preliminary data

3/ Data are available for the total economy only.

4/ Indirectly measured value of financial intermediation services, which is calculated as interest receivables by financial intermediaries, less interest payable.

Table A13. Bulgaria: Average Monthly Earnings in the State Sector, 1996-99

	1996	1997	1998	1999	1997	1998	1999	1997	1998	1999
		(In leva)			(In 1995 prices, deflated by CPI) (Percentage change)			(In 1995 prices, deflated by PPI) (Percentage change)		
Total	14	136	195	221	-15.7	17.6	13.7	-6.6	22.9	8.8
Agriculture	11	110	156	166	-11.6	15.6	6.4	-2.0	20.8	1.9
Forestry	8	113	152	167	23.7	10.5	9.7	37.0	15.4	5.0
Mining coal, petroleum, gas	...	202	291	322	...	17.4	10.7	...	22.7	6.0
Mining of ferrous metals	...	216	240	311	...	-9.0	29.3	...	-4.9	23.8
Mining other and quarrying	...	195	263	267	...	10.0	1.4	...	15.0	-3.0
Food, beverage, tobacco	...	177	242	271	...	11.5	12.2	...	16.5	7.4
Textiles	...	107	131	134	...	0.1	2.2	...	4.6	-2.2
Wearing apparel,except leather	...	91	110	119	...	-1.1	7.7	...	3.3	3.1
Leather	...	100	122	164	...	-0.6	34.5	...	3.9	28.8
Wood and wood products	...	86	99	122	...	-6.1	23.8	...	-1.8	18.5
Paper and publishing	...	155	237	263	...	25.2	10.9	...	30.8	6.2
Coke, petroleum, nuclear fuel	...	410	490	513	...	-2.3	4.7	...	2.1	0.2
Chemicals and products	...	243	277	294	...	-6.9	6.2	...	-2.7	1.6
Rubber and plastic	...	157	185	225	...	-4.2	22.1	...	0.2	16.8
Other non-metallic mineral products	...	155	216	199	...	13.7	-7.9	...	18.8	-11.9
Basic Metals	...	300	366	388	...	0.0	5.9	...	4.4	1.4
Machinery and Equipment	...	134	189	198	...	15.4	4.7	...	20.6	0.2
Electrical and optical equipment	...	130	172	177	...	8.3	3.1	...	13.2	-1.3
Transport equipment	...	183	248	230	...	10.5	-7.1	...	15.5	-11.0
Manufacturing. n.e.i.	...	98	127	141	...	6.0	11.4	...	10.7	6.6
Electricity, gas, water	11	211	342	401	56.5	32.5	17.1	73.4	38.4	12.1
Construction	13	124	197	229	-17.5	30.6	16.1	-8.6	36.5	11.1
Trade	13	155	234	269	-2.0	23.1	15.3	8.6	28.6	10.3
Hotels and restaurants		123	169	184	...	12.7	8.7	...	17.8	4.1
Transportation and storage		167	233	255	...	14.5	9.2	...	19.7	4.6
Communication	13	159	232	288	3.7	19.7	23.9	14.9	25.1	18.6
Financial services	22	201	299	369	-22.6	21.9	23.4	-14.2	27.4	18.1
Real estate		112	171	199	...	25.7	15.9	...	31.4	10.9
Research and development	11	106	159	190	-19.0	23.0	19.6	-10.3	28.5	14.5
Business activities		137	217	247	...	30.3	13.7	...	36.1	8.8
Public administration and defense	11	111	183	227	-11.6	35.4	23.7	-2.0	41.5	18.4
Education	9	86	133	166	-17.0	26.3	24.9	-8.0	32.0	19.6
Health	9	79	126	149	-21.7	30.5	18.5	-13.2	36.3	13.4
Veterinary	...	123	263	308	...	74.6	17.1	...	82.4	12.1
NGOs n.e.i.	...	68	135	158	...	63.6	16.6	...	71.0	11.6
Miscellaneous services	...	61	93	108	...	23.9	16.8	...	29.4	11.8
Cultural	9	91	142	186	-11.1	28.3	30.6	-1.5	34.0	25.0
Recreation and sport	...	86	156	198	...	47.8	27.0	...	54.4	21.6

Sources: National Statistical Institute and Fund staff calculations.

Table A14. Bulgaria: Labor Force, Employment, and Unemployment, 1990-99

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999 Q3 1/
					(In thousands)					
Population	8,718.3	8,632.3	8,540.1	8,472.3	8,427.4	8,384.7	8,340.9	8,283.2	8,230.4	...
Of working age 2/	4,822.2	4,793.3	4,756.8	4,735.7	4,741.2	4,745.4	4,749.2	4,749.5	4,750.3	...
Pensioners	2,273.4	2,374.4	2,443.3	2,439.8	2,423.7	2,409.2	2,381.1	2,391.8	2,387.3	2,377.7
Total labor force	4,161.9	3,983.1	3,850.6	3,847.9	3,730.0	3,706.0	3,764.7	3,680.9	3,617.8	...
Participation rate (in percent) 3/	86.3	83.1	80.9	81.3	78.7	78.1	79.3	77.6	76.2	...
Employment	4,096.8	3,564.0	3,273.7	3,221.8	3,241.6	3,282.2	3,285.9	3,157.4	3,152.6	...
Public	3,855.2	3,204.2	2,693.7	2,309.7	2,066.2	1,949.4	1,728.4	1,412.1	1,230.4	...
Private	241.6	359.8	580.0	912.1	1,175.4	1,332.8	1,557.5	1745.3	1,922.2	...
Share of total employment (in percent)										
Public	94.1	89.9	82.3	71.7	63.7	59.4	52.6	44.7	39.0	...
Private	5.9	10.1	17.7	28.3	36.3	40.6	47.4	55.3	61.0	...
Registered unemployed	65.1	419.1	576.9	626.1	488.4	423.8	478.8	523.5	465.2	520.3
Official unemployment rate (in percent) 4/	1.7	11.1	15.3	16.4	12.8	11.1	12.5	13.7	12.2	13.2
Calculated unemployment rate (in percent) 5/	1.6	10.5	15.0	16.3	13.1	11.4	12.7	14.2	12.9	...
Unemployment beneficiaries	35.0	171.0	198.5	195.4	167.3	138.9	178.0	157.7	136.3	...
(in percent)	0.8	4.3	5.2	5.1	4.5	3.7	4.7	4.3	3.8	...
					(Percent change)					
Population	-1.8	-1.0	-1.1	-0.8	-0.5	-0.5	-0.5	-0.7	-0.6	...
Labor force	-4.7	-4.3	-3.3	-0.1	-3.1	-0.6	1.6	-2.2	-1.7	...
Employment	-6.1	-13.0	-8.1	-1.6	0.6	1.3	0.1	-3.9	-0.2	...
Of which:										
Private	1.3	48.9	61.2	57.3	28.9	13.4	16.9	12.1	10.1	...

Sources: National Statistical Institute; and staff estimates.

1/ Preliminary data. Data on labor force and employment are available only annually.
2/ National classification: includes women aged 16-55 and men aged 16-60.
3/ Labor force as a proportion of the working age population.
4/ End of period.
5/ End-of-period rate of unemployed in the total labor force.

Table A15. Bulgaria: Price Indices of Food, Non-Food, and Services, 1995–99
(1995=100)

		Food Price Index	Monthly Change (In percent)	Non-Food Price Index	Monthly Change (In percent)	Services Price Index	Monthly Change (In percent)
1995	January	93.7	3.8	85.8	3.0	77.7	5.6
	February	97.7	4.3	88.7	3.3	79.1	1.9
	March	97.4	-0.3	91.6	3.3	94.8	19.9
	April	97.3	-0.1	93.4	2.0	96.1	1.4
	May	98.7	1.4	96.0	2.7	97.1	1.0
	June	96.7	-2.0	98.8	2.9	99.1	2.1
	July	97.1	0.4	101.6	2.9	100.8	1.7
	August	96.7	-0.5	103.2	1.5	101.7	0.9
	September	101.2	4.7	106.7	3.4	111.6	9.7
	October	104.1	2.9	109.1	2.2	112.5	0.8
	November	107.7	3.5	111.4	2.1	113.9	1.2
	December	111.5	3.5	113.7	2.1	115.5	1.5
1996	January	114.9	3.0	114.5	0.7	119.6	3.5
	February	116.0	1.0	116.0	1.3	128.0	7.0
	March	117.3	1.1	118.9	2.5	129.8	1.5
	April	119.3	1.8	122.2	2.8	139.9	7.7
	May	132.6	11.1	141.3	15.7	154.2	10.2
	June	163.3	23.2	172.5	22.1	165.8	7.5
	July	195.6	19.8	207.7	20.5	244.8	47.7
	August	237.8	21.5	234.3	12.8	281.2	14.9
	September	290.0	21.9	273.8	16.8	316.7	12.6
	October	346.7	19.6	311.1	13.6	359.2	13.4
	November	368.9	6.4	354.7	14.0	398.6	11.0
	December	453.4	22.9	485.5	36.9	470.0	17.9
1997	January	661.4	45.9	703.5	44.9	627.5	33.5
	February	2,495.5	277.3	2,585.2	267.5	1,072.4	70.9
	March	2,645.2	6.0	2,661.2	2.9	2,149.1	100.4
	April	2,542.3	-3.9	2,512.9	-5.6	2,680.5	24.7
	May	2,772.6	9.1	2,501.7	-0.4	2,834.5	5.7
	June	2,742.5	-1.1	2,550.8	2.0	2,958.9	4.4
	July	2,876.2	4.9	2,609.6	2.3	3,017.2	2.0
	August	3,103.1	7.9	2,682.6	2.8	3,093.5	2.5
	September	3,166.1	2.0	2,802.7	4.5	3,292.1	6.4
	October	3,145.7	-0.6	2,837.3	1.2	3,370.7	2.4
	November	3,148.5	0.1	2,861.4	0.8	3,407.3	1.1
	December	3,222.4	2.3	2,866.0	0.2	3,438.3	0.9
1998	January	3,325.5	3.2	2,857.6	-0.3	3,497.3	1.7
	February	3,400.5	2.3	2,859.4	0.1	3,591.0	2.7
	March	3,410.8	0.3	2,808.9	-1.8	3,644.6	1.5
	April	3,397.3	-0.4	2,821.9	0.5	3,686.5	1.1
	May	3,414.3	0.5	2,820.7	0.0	3,731.3	1.2
	June	3,301.1	-3.3	2,801.6	-0.7	3,775.9	1.2
	July	3,197.2	-3.1	2,792.1	-0.3	3,857.5	2.2
	August	3,107.6	-2.8	2,811.6	0.7	3,953.9	2.5
	September	3,051.7	-1.8	2,859.4	1.7	4,092.3	3.5
	October	3,020.0	-1.0	2,850.6	-0.3	4,154.8	1.5
	November	2,963.9	-1.9	2,845.5	-0.2	4,177.3	0.5
	December	2,922.3	-1.4	2,842.7	-0.1	4187.3	0.2
1999	January	2,913.0	-0.3	2,859.4	0.6	4479.6	7.0
	February	2,865.1	-1.6	2844.3	-0.5	4520.4	0.9
	March	2,798.5	-2.3	2828.3	-0.6	4554.9	0.8
	April	2,739.5	-2.1	2843.4	0.5	4583.6	0.6
	May	2,690.9	-1.8	2847.2	0.1	4591.0	0.2
	June	2,662.0	-1.1	2842.7	-0.2	4606.2	0.3
	July	2,730.3	2.6	2911.9	2.4	4866.4	5.6
	August	2,752.0	0.8	2947.3	1.2	4909.8	0.9
	September	2,807.9	2.0	2971.3	0.8	4974.4	1.3
	October	2,845.1	1.3	2970.7	0.0	5063.3	1.8
	November	2,876.8	1.1	2982.1	0.4	5073.9	0.2
	December	2,902.7	0.9	2992.4	0.3	5119.4	0.9

Source: National Statistical Institute.

Table A16. Bulgaria: Producer and Consumer Price Indices, 1996-2000
(1995 = 100)

	Consumer Price Index	Monthly Change in Percent	12-month Change in Percent	Producer Price Index 1/	Monthly Change in Percent	12-month Change in Percent
1996						
January	115.5	2.3	30.9	114.2	n.a.	...
February	117.7	1.9	28.5	117.9	3.2	...
March	119.7	1.7	26.4	120.8	2.5	...
April	123.2	2.9	28.8	123.4	2.2	...
May	138.6	12.5	42.2	144.1	16.7	...
June	166.6	20.3	70.2	175.8	22.0	...
July	205.5	23.3	106.7	219.2	24.7	...
August	240.6	17.1	140.7	262.0	19.5	...
September	285.7	18.8	172.9	299.5	14.3	...
October	333.3	16.7	210.5	348.7	16.4	...
November	365.5	9.7	232.0	385.8	10.7	...
December	464.0	26.9	310.8	506.9	31.4	...
1997						
January	666.0	43.5	476.6	767.7	51.4	572.5
February	2282.4	242.7	1839.1	2039.1	165.6	1,629.9
March	2562.4	12.3	2040.4	2416.0	18.5	1,900.0
April	2544.5	-0.7	1965.1	2471.3	2.3	1,902.5
May	2688.2	5.7	1840.1	2521.6	2.0	1,650.3
June	2710.3	0.8	1526.6	2604.4	3.3	1,381.7
July	2809.5	3.7	1267.2	2730.9	4.9	1,145.8
August	2964.3	5.5	1132.2	2852.8	4.5	988.7
September	3070.4	3.6	974.6	2900.2	1.7	868.3
October	3086.1	0.5	825.8	2932.2	1.1	740.9
November	3102.4	0.5	748.8	2932.3	0.0	660.0
December	3148.0	1.5	578.5	2902.7	-1.0	472.6
1998						
January	3210.4	2.0	382.1	2882.1	-0.7	275.4
February	3266.2	1.7	43.1	2954.6	2.5	44.9
March	3264.6	-0.1	27.4	2913.1	-1.4	20.6
April	3268.2	0.1	28.4	2920.7	0.3	18.2
May	3283.2	0.5	22.1	2949.8	1.0	17.0
June	3221.8	-1.9	18.9	2946.7	-0.1	13.1
July	3174.5	-1.5	13.0	2916.5	-1.0	6.8
August	3145.6	-0.9	6.1	2948.7	1.1	3.4
September	3240.7	3.0	5.5	2953.6	0.2	1.8
October	3230.9	-0.3	4.7	2946.2	-0.3	0.5
November	3200.5	-0.9	3.2	2941.5	-0.2	0.3
December	3178.0	-0.7	1.0	2916.8	-0.8	0.5
1999						
January	3225.4	1.5	0.5	2932.5	0.5	1.7
February	3205.3	-0.6	-1.9	2926.6	-0.2	-0.9
March	3172.4	-1.0	-2.8	2924.3	-0.1	0.4
April	3152.2	-0.6	-3.5	2913.5	-0.4	-0.2
May	3130.5	-0.7	-4.7	2902.7	-0.4	-1.6
June	3115.9	-0.5	-3.3	2820.0	-2.9	-4.3
July	3215.2	3.2	1.3	2870.2	1.8	-1.6
August	3247.5	1.0	3.2	2990.7	4.2	1.4
September	3295.7	1.5	1.7	3307.7	10.6	12.0
October	3330.2	1.0	3.1	3324.3	0.5	12.8
November	3351.5	0.6	4.7	3,392.4	2.1	15.3
December	3373.6	0.7	6.2	3,458.9	2.0	18.6
2000						
January	3454.6	2.4	7.1	3,497.0	1.1	19.2

Source: National Statistical Institute.

1/ Since January 1998 National Statistical Institute has changed the PPI methodology. A Laspeyres formula is used where: (1) the base price is the average price in 1995; and (2) price changes are weighted with the annual sales structure in '1995. Indexes for 1996 and 1997 have been recalculated according to the new methodology.

Table A17. Bulgaria: Estimated Private Sector Share in GDP and Employment in Related Transition Economies, 1991-99

	1991	1992	1993	1994	1995	1996	1997	1998	1999	1991	1992	1993	1994	1995	1996	1997	1998	1999
					(In GDP)									(In employment)				
Private sector share (in percent)																		
Bulgaria 1/	19	26	35	39	48	53	59	65	62	10	18	28	36	41	47	55	59	...
Croatia 2/	25	35	41	56	51	49	50	48	...	22	27	37	47	48	51	51	...	...
Czech Republic 3/	17	28	45	56	64	62	62	60	...	19	40	79	79	79	79	79	79	...
Hungary	30	40	50	55	60	70	75	85	...	...	...	...	...	...	...	...	...	...
Poland	42	45	48	46	53	55	59	61	...	50	54	57	59	62	64	68	71	...
Romania	24	26	35	39	45	55	58	61	62	34	41	44	49	51	52	58	...	...
Slovak Republic 4/	15	30	45	55	60	70	75	75	...	13	18	22	32	...	...	...	...	...
Slovenia 5/	15	20	25	30	45	45	50	50	55	12	16	19	22	48	...	...	...	...

Sources: EBRD Transition Report 1999; National Statistical Institute, Bulgaria; State Institute of Macroeconomic Analysis and Forecasting, Croatia; Czech Statistical Office; Hungarian Statistical Office; Polish Statistical Office; National Bank of Romania; and Slovak Statistical Office.

1/ According to Revised National Classification of Economic Activities from 1996. The change in definition resulted in a step increase of 3.5 percentage points in the share in GDP in that year.

2/ End-of-year data; employment data for the period before 1993 include only 100 percent privately owned firms; from 1993-94 mixed firms with more than 50 percent private ownership and transformed firms are also included. Data for 1996-97 is according to the revised definition of the labor force. Tentative estimates.

3/ Shares in GDP estimates are for the "non-state sector"; private sector employment includes enterprises with mixed ownership.

4/ Share in GDP estimats are for the "non-state" sector. Before 1994, firms with mixed ownership were excluded from the definition of the private sector. Since 1994, such firms were included in the definition of the private sector.

5/ Excluding socially managed enterprises.

Table A18. Bulgaria: Financial Performance of State-Owned Enterprises, 1991-98

	1991	1992	1993	1994	1995	1996	1997	1998
				(In millions of leva)				
Revenues	309.6	306.4	360.2	643.0	912.1	2,199.1	16,269.6	15,103.3
Operational	297.7	288.6	339.1	596.0	867.4	1,979.2	14,510.9	13,759.4
Financial	6.9	8.2	8.5	26.2	21.4	176.9	1,422.9	809.4
Extraordinary	5.0	9.6	12.7	20.8	23.3	43.0	335.8	534.5
Expenditures	289.8	314.7	391.3	644.1	914.5	2,106.7	14,917.1	14,765.5
Operational	263.8	269.9	335.7	538.7	809.2	1,761.3	11,975.9	13,047.6
Financial	20.7	35.9	43.3	80.5	65.9	274.4	2,248.5	940.2
Interest paid on credits	17.0	29.9	36.9	44.7	48.7	81.8	279.0	242.8
Extraordinary	5.3	8.9	12.2	25.0	39.4	71.0	692.7	777.7
Operational surplus	33.9	18.7	3.3	57.3	58.2	217.9	2,535.0	711.8
Net financial revenues	-13.8	-27.6	-34.8	-54.2	-44.5	-97.5	-825.6	-130.8
Net extraordinary	-0.3	0.7	0.4	-4.1	-16.1	-28.0	-356.8	-243.1
Net revenues	19.8	-8.3	-31.1	-1.1	-2.4	92.4	1,352.5	337.9
Total losses	-5.8	-24.7	-40.9	-38.9	-49.4	-123.6	-488.9	-753.7
Total profits	25.7	16.4	9.8	37.8	47.0	215.9	1,841.4	1,091.5
				(In percent of GDP)				
Revenue	228.2	152.6	120.5	123.1	103.6	125.8	95.1	70.0
Operational	219.4	143.7	113.4	114.1	98.5	113.2	84.8	63.8
Financial	5.1	4.1	2.8	5.0	2.4	10.1	8.3	3.8
Extraordinary	3.7	4.8	4.2	4.0	2.6	2.5	2.0	2.5
Expenditures	213.6	156.7	130.9	123.3	103.9	120.5	87.2	68.4
Operational	194.4	134.4	112.3	103.2	91.9	100.7	70.0	60.5
Financial	15.3	17.9	14.5	15.4	7.5	15.7	13.1	4.4
Extraordinary	3.9	4.4	4.1	4.8	4.5	4.1	4.0	3.6
Operational surplus	25.0	9.3	1.1	11.0	6.6	12.5	14.8	3.3
Net financial revenues	-10.2	-13.8	-11.7	-10.4	-5.1	-5.6	-4.8	-0.6
Net extraordinary revenues	-0.2	0.3	0.1	-0.8	-1.8	-1.6	-2.1	-1.1
Net revenues	14.6	-4.1	-10.4	-0.2	-0.3	5.3	7.9	1.6
Total losses	-4.3	-12.3	-13.7	-7.4	-5.6	-7.1	-2.9	-3.5
Total profits	18.9	8.2	3.3	7.2	5.3	12.3	10.8	5.1
Memorandum item:								
GDP (million leva)	135.7	200.8	298.9	522.2	880.3	1,748.7	17,103	21,577

Sources: National Statistical Institute and Ministry of Finance.

Table A19. Bulgaria: Bank and Nonbank Liabilities of State-Owned Enterprises, 1991-1998

	1991	1992	1993	1994	1995	1996	1997 1/	1998 1/
				(Change from previous year, in millions of leva)				
Total change in liabilities	90.8	67.2	60.6	131.8	134.5	1,118.9	5,601.6	147.5
(in percent of GDP)	66.9	33.5	20.3	25.1	15.3	64.0	32.8	0.7
Changes in bank credit	35.3	21.9	31.7	48.8	35.2	411.7	2,173.0	-104.2
(in percent of GDP)	26.0	10.9	10.6	9.3	4.0	23.5	12.7	-0.5
(in percent of bank liabilities)	50.2	23.8	25.6	28.3	16.9	66.4	77.8	-3.9
Short-term loans	13.2	14.4	14.6	17.6	11.1	104.1	494.0	-141.1
Of which: Arrears	1.0	6.1	7.1	-2.4	18.0	53.4	44.9	-14.1
Long-term loans	22.2	7.5	17.0	8.8	-16.5	137.8	750.0	256.0
Of which: Arrears	11.7	2.1	7.2	-11.7	-0.1	31.5	125.7	204.1
Other loans	...	...	...	22.4	40.6	169.8	928.9	-219.1
Total change in arrears to banks	12.6	8.3	14.3	-14.1	17.8	98.4	170.6	190.0
(in percent of bank credit)	17.9	9.0	11.5	-8.2	8.6	15.9	6.1	7.1
Total change in nonbank liabilities	55.5	45.3	28.8	83.0	99.3	822.0	3,428.7	251.7
(in percent of GDP)	40.9	22.6	9.6	15.8	11.3	47.0	20.0	1.2
(in percent of nonbank liabilities)	78.5	39.1	19.9	36.4	30.4	79.5	76.8	5.3
Suppliers	25.9	9.9	4.9	27.5	29.6	335.0	1,161.0	87.7
Personnel	3.1	1.6	3.7	3.4	1.7	29.2	151.0	2.6
Taxes	5.5	8.5	6.8	27.7	24.7	133.4	748.1	386.5
Pensions	1.3	3.3	2.9	3.4	6.9	25.2	88.4	83.9
Other	19.6	22.0	10.6	21.0	36.5	299.2	1,280.2	-308.9
				(Stocks in millions of leva)				
Total stocks	140.9	208.1	268.7	400.5	535.0	1,653.9	7,255.5	7,403.1
(in percent of GDP)	103.8	103.6	89.9	76.2	60.8	94.6	42.4	34.3
Bank credit	70.3	92.1	123.9	172.7	207.9	619.6	2,792.6	2,688.4
(in percent of GDP)	51.8	45.9	41.5	32.9	23.6	35.4	16.3	12.5
(in percent of total stocks)	49.9	44.3	46.1	43.1	38.9	37.5	38.5	36.3
Short-term loans	27.3	41.6	56.3	73.9	85.0	189.1	683.1	542.0
Of which: Arrears	1.8	8.0	15.0	12.6	30.6	84.0	128.9	114.8
Long-term loans	43.0	50.5	67.5	76.3	59.8	197.6	947.6	1,203.6
Of which: Arrears	12.0	14.1	21.4	9.7	9.6	41.1	166.8	370.9
Other loans	...	...	0.1	22.5	63.1	232.9	1,161.8	942.8
Total arrears	13.8	22.1	36.4	22.3	40.1	125.1	295.7	485.7
(in percent of bank credit)	19.6	24.0	29.4	12.9	19.3	20.2	10.6	18.1
Liabilities to non-banks	70.7	116.0	144.7	227.8	327.1	1,034.2	4,462.9	4,714.7
(in percent of GDP)	52.1	57.8	48.4	43.3	37.2	59.1	26.1	21.9
(in percent of total stocks)	50.2	55.7	53.9	56.9	61.1	62.5	61.5	63.7
Suppliers	30.6	40.5	45.4	72.9	102.5	406.0	1,567.0	1,654.8
Personnel	4.2	5.8	9.4	12.8	14.5	39.5	190.5	193.0
Taxes	7.2	15.7	22.5	50.2	74.9	182.0	930.1	1,316.6
Pensions	1.7	5.0	7.8	11.2	18.1	37.0	125.4	209.3
Other	27.0	49.0	59.6	80.7	117.1	369.7	1,649.9	1,341.0
Memorandum items:								
Credit to SOEs	106.5	139.0	203.3	346.5	329.3	1,077.4	1,254.1	945.6
(in percent of GDP)	78.5	69.2	68.0	65.9	37.4	61.6	7.3	4.4
Total lev credit	60.8	78.0	112.3	149.0	189.2	186.5	470.4	324.9
Lev credit	56.7	73.9	75.7	111.7	97.6	95.2	336.2	299.9
Lev bad loan bonds	4.1	4.1	36.6	37.2	91.6	91.3	134.2	25.0
Total FX credit	45.7	61.0	91.1	197.5	140.1	598.7	2,280.2	1,855.2
FX credit	45.7	61.0	91.1	78.2	71.4	429.7	917.8	645.7
FX bad loan bonds	...	...	...	119.4	68.7	169.0	1,362.4	1,209.5
Total FX credit (in US$ billion)	2.1	2.5	2.8	3.0	2.0	3.4	1.4	1.0
GDP (In billions of leva)	135.7	200.8	298.9	525.6	880.3	1,748.7	17,103.4	21,577.0

Sources: National Statistical Institute; Ministry of Finance; and Bulgarian National Bank.

1/ Data for 1997 and 1998 exclude agriculture.

Table A20. Bulgaria: State-Owned Enterprises Profitability and Profit Categories, 1992-98

	1992	1993	1994	1995	1996	1997	1998
Total number of enterprises /1	5,736	5,119	5,490	5,630	5,492	4,034	3,090
Group I							
Number	1,243	117	1,065	89	74	127	71
Share in Total, in percent	21.7	2.3	19.4	1.6	1.3	3.1	2.3
Group II							
Number	1,973	2,108	2,247	1,525	1,384	1,376	969
Share in Total, in percent	34.4	41.2	40.9	27.1	25.2	34.1	31.4
Group III							
Number	867	766	894	2,754	2,276	1,448	1,031
Share in Total, in percent	15.1	15.0	16.3	48.9	41.4	35.9	33.4
Subtotal: Groups I - III							
Number	4,083	2,991	4,206	4,368	3,734	2,951	2,071
Share in Total, in percent	71.2	58.4	76.6	77.6	68.0	73.2	67.0
Group IV							
Number	410	329	394	353	505	56	230
Share in Total, in percent	7.1	6.4	7.2	6.3	9.2	1.4	7.4
Group V							
Number	1,243	799	890	909	1,253	1,027	789
Share in Total, in percent	21.7	15.6	16.2	16.2	22.8	25.5	25.5

Sources: National Statistical Institute and Ministry of Finance.
1/ Excluding agriculture.

Group I: Enterprise whose current revenues do not meet current expenditures on material inputs.
Group II: Enterprises that meet the cost of material inputs but nothing else.
Group III: Enterprises that meet the costs of material inputs and wages, but are unable to cover non-operational expenditure.
Group IV: Enterprises that meet all costs excluding depreciation.
Group V: Enteprises that meet all costs.

Table A21. Bulgaria: Share of the 100 Largest Loss-Making State-Owned Enterprises in all State-Owned Enterprises, 1997-98

	1997			1998		
	100 Largest loss-making SOEs in millions of leva	All other SOEs in millions of leva	Largest loss-making SOEs as percentage of all SOEs	100 Largest loss-making SOEs in millions of leva	All other SOEs in millions of leva	Largest loss-making SOEs as percentage of all SOEs
Revenue	4,353.9	16,269.6	26.8	3,863.5	15,103.3	25.6
Operational	4,034.3	14,510.9	27.8	3,546.3	13,759.4	25.8
Financial	262.6	1,422.9	18.5	256.4	809.4	31.7
Extraordinary	57.0	335.8	17.0	60.8	534.5	11.4
Expenditures	4,832.1	14,917.1	32.4	4,547.6	14,765.5	30.8
Operational	3,688.5	11,975.9	30.8	3,871.3	13,047.6	29.7
Financial	881.8	2,248.5	39.2	348.9	940.2	37.1
Extraordinary	261.8	692.7	37.8	327.4	777.7	42.1
Operational surplus	345.8	2,535.0	13.6	-325.0	711.8	-45.7
Net financial revenues	-619.2	-825.6	75.0	-92.5	-130.8	70.7
Net extraordinary revenues	-204.8	-356.9	57.4	-266.6	-243.2	109.6
Net profits	-478.2	1,352.5		-684.1	337.8	
Total nonbank liabilities	1,707.8	4,462.9	38.3	1,747.4	4,714.7	37.1
Suppliers	668.8	1,567.0	42.7	749.0	1,654.8	45.3
Personnel	29.7	190.5	15.6	48.4	193.0	25.1
Budget 2/	449.6	930.1	48.3	305.7	1,316.6	23.2
Other 3/	559.7	1,775.3	31.5	644.3	1,550.3	41.6

Sources: National Statistical Institute and Ministry of Finance.

1/ The 100 largest loss-making SOEs include enterprises under Isolation Program.

2/ Excludes ZUNK credits transferred from banks to the budget.

3/ This represents a composite grouping of several categories including money received from customers in advance but not recognized as revenue for the year under review, and interest accrued but not actually paid to deposit money banks.

Table A22. Bulgaria: Privatization of State-Owned Enterprises, 1993-99

	1993	1994	1995	1996	1997	1998	1999	Total
Number of Privatization transactions 1/	116	549	1,521	3,091	912	1,383	...	...
In the state sector	63	165	308	516	588	1,102	1,225	3,967
Of which: Privatization agency	11	36	69	146	83	176	231	752
Ministries/Committees	51	129	240	369	506	769	994	3,058
In the municipal sector	53	384	1,213	2,575	324	281		4,830
Privatization proceeds (US$ million) 2/	72	233	182	417	608	614	1,156	3,281
Of which: Payments contracted	44	144	114	185	572	569	656	2,284
Corporate Liabilities paid	13	33	58	218	35	45	499	901
Corporate Liabilitites assumed	15	56	11	14	1	0	1	97
Long-term assets privatized (billion leva) 3/	2	9	6	24	107	26	99	273
By privatization agency	2	9	3	20	14	10	81	139
By Ministries/Committees	0	1	3	3	8	16	17	49
By Center for Mass Privatization 4/	0	0	0	0	85	0	0	85
Long-term assets privatized (percent of total) 5/	0	2	1	4	18	4	17	47
By privatization agency	0	1	1	4	2	2	14	24
By Ministries/Committees	0	0	1	1	1	3	3	8
By Center for Mass Privatization	0	0	0	0	15	0	0	15

Source: Privatization Agency.

1/ Includes privatization of whole enterprises and of parts of enterprises.
2/ Includes cash payments contracted and debt instruments.
3/ At end-1995 accounting valuation.
4/ Voucher privatization.
5/ Percent of total state owned assets of 580 billion leva at end-1995 accounting valuation.

Table A23. Bulgaria: General Government, 1992-99 1/

	1992	1993	1994	1995	1996	1997	1998	1999
				(In millions of leva)				
Total revenue	77	111	210	314	558	5,352	7,935	9,065
Of which: Tax revenue	66	86	167	258	464	4,546	6,767	6,923
BNB transfers	3	10	20	7	22	34	0	90
Total expenditure	88	144	240	364	740	5,708	7,732	9,279
Of which: Current non-interest	69	110	161	230	383	3,967	6,001	7,048
Interest	13	28	71	124	344	1,355	952	896
External	3	3	7	25	48	419	688	688
Domestic	10	25	64	100	297	936	264	208
Primary balance	2	-5	41	75	162	999	1,154	683
Primary balance excluding BNB transfers	-1	-14	21	68	139	965	1,154	593
Overall balance	-11	-33	-30	-50	-183	-356	203	-213
Financing	11	33	30	50	183	356	-203	213
External financing (net)	-2	-4	-3	-12	-50	-130	-204	42
Domestic financing (net)	12	36	33	61	233	-54	-314	-331
Banking system	12	33	29	43	213	-67	-545	-331
Nonbank	0	4	4	18	19	116	73	0
Privatization	0	0	0	0	0	539	335	503
				(In percent of GDP)				
Total revenue	38.4	37.2	39.9	35.7	31.9	31.4	36.8	40.3
Of which: Tax revenue	33.1	28.9	31.8	29.3	26.5	26.7	31.4	30.8
Total expenditure	43.6	48.1	45.7	41.3	42.3	33.5	35.8	41.2
Of which: Current non-interest	34.4	36.9	30.7	26.1	21.9	23.3	27.8	31.3
Interest	6.5	9.3	13.5	14.1	19.7	7.9	4.4	4.0
External	1.6	1.0	1.3	2.8	2.7	2.5	3.2	3.1
Domestic	4.8	8.3	12.2	11.3	17.0	5.5	1.2	0.9
Primary balance	1.2	-1.5	7.7	8.5	9.3	5.9	5.3	3.0
Primary balance excluding BNB transfers	-0.4	-4.7	3.9	7.7	8.0	5.7	5.3	2.6
Overall balance	-5.2	-10.9	-5.8	-5.6	-10.4	-2.1	0.9	-0.9
Financing	5.2	10.9	5.8	5.6	10.4	2.1	-0.9	0.9
External financing (net)	-0.7	-1.2	-0.5	-1.3	-2.9	-0.8	-1.0	0.2
Domestic financing (net)	6.0	12.1	6.3	7.0	13.3	-0.3	-1.5	-1.5
Banking system	6.0	11.0	5.5	4.9	12.2	-0.4	-2.5	-1.5
Nonbank	-0.1	1.2	0.7	2.1	1.1	0.7	0.3	0.0
Privatization	0.0	0.0	0.0	0.0	0.0	3.2	1.6	2.2
Memorandum items								
Government social insurance contributions 2/								
(in millions of leva)	3	7	11	16	23	249	385	564
(in percent of GDP)	2.2	2.2	2.0	1.8	1.3	1.5	1.8	2.5
Nominal GDP (in millions of leva)	201	299	526	880	1,749	17,055	21,577	22,515

Source: Bulgarian Ministry of Finance.

1/ Consolidated government through 1997.

2/ Social insurance contributions paid by central government to the social insurance fund.

Table A24. Bulgaria: General Government Revenue, 1992-99 1/

	1992	1993	1994	1995	1996	1997	1998	1999
				(In millions of leva)				
Total revenue	77	111	210	314	558	5,352	7,935	9,065
Tax revenue	66	86	167	258	464	4,546	6,767	6,923
Profit taxes	14	7	19	33	74	849	873	735
Nonfinancial enterprises	9	6	19	30	62	755	692	637
Financial enterprises	5	1	1	3	12	94	182	97
Income taxes	11	15	23	36	70	680	1,022	1,056
VAT/turnover taxes	7	10	39	59	117	1,049	1,833	1,927
Excise duties	5	11	18	23	26	362	674	688
Customs duties	4	9	15	21	38	363	435	259
Social insurance contributions	22	30	47	70	121	1,176	1,655	1,793
Pension fund	19	26	40	59	108	1,059	1,497	1,538
Unemployment fund	3	4	7	10	13	117	158	152
Health Insurance fund	0	0	0	0	0	0	0	104
Other taxes	4	4	6	15	17	67	275	466
Nontax revenues	11	19	40	50	86	745	1,152	1,968
BNB transfers	3	10	20	16	22	34	0	90
Other	7	9	20	34	64	711	1,152	1,878
Extrabudgetary funds	0	6	3	6	8	0	16	174
				(In percent of GDP)				
Total revenue	38.4	37.2	39.9	35.7	31.9	31.4	36.8	40.3
Tax revenue	33.1	28.9	31.8	29.3	26.5	26.7	31.4	30.8
Profit taxes	6.8	2.2	3.7	3.8	4.2	5.0	4.0	3.3
Nonfinancial enterprises	4.5	2.0	3.6	3.4	3.6	4.4	3.2	2.8
Financial enterprises	2.3	0.3	0.1	0.4	0.7	0.6	0.8	0.4
Income taxes	5.4	5.0	4.4	4.1	4.0	4.0	4.7	4.7
VAT/turnover taxes	3.6	3.5	7.3	6.7	6.7	6.1	8.5	8.6
Excise duties	2.6	3.8	3.4	2.6	1.5	2.1	3.1	3.1
Customs duties	2.0	3.0	2.8	2.4	2.2	2.1	2.0	1.1
Social insurance contributions	10.7	10.1	8.9	7.9	6.9	6.9	7.7	8.0
Pension fund	9.2	8.6	7.6	6.8	6.1	6.2	6.9	6.8
Unemployment fund	1.5	1.5	1.3	1.2	0.8	0.7	0.7	0.7
Health Insurance fund	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
Other taxes	2.1	1.3	1.2	1.7	1.0	0.4	1.3	2.1
Nontax revenues	5.3	6.3	7.6	5.7	4.9	4.4	5.3	8.7
BNB transfers	1.6	3.2	3.8	1.8	1.3	0.2	0.0	0.4
Other	3.7	3.1	3.8	3.9	3.7	4.2	5.3	8.3
Extrabudgetary funds	0.0	2.1	0.5	0.7	0.4	0.0	0.1	0.8

Source: Bulgarian Ministry of Finance.

1/ Consolidated government through 1997.

Table A25. Bulgaria; General Government Expenditure, 1992-99 1/

	1992	1993	1994	1995	1996	1997	1998	1999
				(In millions of leva)				
Total expenditure	88	144	240	364	740	5,708	7,732	9,279
Total non-interest expenditure	75	116	169	240	396	4,354	6,780	8,382
Current non-interest expenditure	69	110	161	230	383	3,967	6,001	7,048
Compensation 2/	12	19	28	40	61	629	1,020	1,216
Wages and salaries	12	18	27	40	59	614	997	1,191
Scholarships	1	1	1	1	2	12	23	25
Maintenance/operating	16	20	34	48	86	1,071	1,287	1,823
Defense/security	8	12	19	32	53	619	904	981
Subsidies	4	6	7	9	14	125	442	334
Social expenditure	29	45	69	95	159	1,455	2,348	2,681
Pensions	20	33	51	71	122	1,077	1,787	1,954
Assistance	7	10	14	18	27	267	425	448
EU financed assistance	0	0	0	0	0	44	49	0
Unemployment	2	3	4	6	9	59	86	190
Severance payments	0	0	0	0	2	7	0	0
Health Insurance fund	0	0	0	0	0	0	0	90
Extrabudgetary funds	0	8	5	5	9	35	44	14
Capital expenditure	6	6	8	10	13	175	605	980
Interest	13	28	71	124	344	1,355	952	896
External	3	3	7	25	48	419	688	688
Domestic	10	25	64	100	297	936	264	208
				(In percent of GDP)				
Total expenditure	43.6	48.1	45.7	41.3	42.3	33.5	35.8	41.2
Total noninterest expenditure	37.2	38.8	32.2	27.2	22.6	25.5	31.4	37.2
Current noninterest expenditure	34.4	36.9	30.7	26.1	21.9	23.3	27.8	31.3
Compensation 2/	6.1	6.4	5.3	4.6	3.5	3.7	4.7	5.4
Wages and salaries	5.8	6.1	5.0	4.5	3.4	3.6	4.6	5.3
Scholarships	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1
Maintenance/operating	8.0	6.5	6.4	5.5	4.9	6.3	6.0	8.1
Defense/security	4.2	4.0	3.6	3.6	3.0	3.6	4.2	4.4
Subsidies	1.8	2.2	1.4	1.1	0.8	0.7	2.0	1.5
Social expenditure	14.2	15.2	13.0	10.8	9.1	8.5	10.9	11.9
Pensions	10.0	11.0	9.8	8.0	7.0	6.3	8.3	8.7
Assistance	3.5	3.2	2.6	2.1	1.5	1.6	2.0	2.0
EU financed assistance	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.0
Unemployment	0.8	1.0	0.7	0.7	0.5	0.3	0.4	0.8
Severance payments	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Health Insurance fund	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Extrabudgetary funds	0.0	2.6	1.0	0.6	0.5	0.2	0.2	0.1
Capital expenditure	2.8	1.9	1.5	1.1	0.7	1.0	2.8	4.4
Interest	6.5	9.3	13.5	14.1	19.7	7.9	4.4	4.0
External	1.6	1.0	1.3	2.8	2.7	2.5	3.2	3.1
Domestic	4.8	8.3	12.2	11.3	17.0	5.5	1.2	0.9

Source: Bulgarian Ministry of Finance.

1/ Consolidated government through 1997.
2/ Excluding social insurance paid by the government on behalf of its employees.

Table A26. Bulgaria: Summary of General Government Operations (GFS Definition), 1988-99

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998 1/	1999 1/
						(In millions of leva)						
Total revenue and grants	24	26	27	61	87	119	235	354	646	6305	8535	9510
Total revenue	24	26	27	61	87	119	235	353	643	6210	8408	9309
Current revenue	24	25	26	61	87	118	230	350	641	6115	8330	9185
Tax revenue	19	21	20	53	69	91	178	272	484	4881	6738	7150
Nontax revenue	4	5	6	8	18	27	52	78	156	1234	1592	2035
Capital revenue	0	0	1	0	0	1	5	3	2	96	77	124
Grants	0	0	0	0	0	0	0	1	4	95	127	201
Total expenditure and net lending	25	26	31	67	98	154	260	400	916	5940	7952	9170
Total expenditure	24	25	29	65	98	152	262	399	913	6363	8248	9462
Current expenditure	21	22	28	62	92	146	251	380	885	5835	7389	8258
Of which: Interest expenses	1	1	2	9	14	29	77	129	353	1440	953	898
Capital expenditure	2	2	1	3	6	7	11	19	29	528	859	1204
Net lending	2	1	1	2	0	2	-2	1	3	-423	-296	-292
Primary balance	-1	1	-1	3	2	-7	52	83	84	1804	1536	1238
Overall balance	-2	0	-4	-6	-12	-36	-25	-46	-270	365	583	340
Financing	2	0	4	6	12	36	25	46	270	-365	-583	-340
Net external financing	-1	-1	0	4	3	-3	8	-7	-33	57	-148	258
Domestic financing	2	1	4	2	9	39	17	53	303	-421	-435	-597
						(In percent of GDP)						
Total revenue and grants	61.6	64.5	59.9	44.9	43.3	39.7	44.7	40.2	37.0	36.9	39.6	42.2
Total revenue	61.6	64.5	59.9	44.8	43.2	39.7	44.7	40.1	36.8	36.3	39.0	41.3
Current revenue	61.4	64.4	58.0	44.7	43.2	39.4	43.7	39.8	36.6	35.8	38.6	40.8
Tax revenue	49.8	51.9	44.5	39.1	34.3	30.5	33.8	30.9	27.7	28.5	31.2	31.8
Nontax revenue	11.5	12.5	13.5	5.6	8.9	8.9	9.9	8.9	8.9	7.2	7.4	9.0
Capital revenue	0.2	0.2	1.9	0.1	0.0	0.2	1.0	0.3	0.1	0.6	0.4	0.6
Grants	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.2	0.6	0.6	0.9
Total expenditure and net lending	65.7	65.4	67.6	49.0	49.0	51.7	49.4	45.4	52.4	34.7	36.9	40.7
Total expenditure	61.4	62.3	64.4	47.9	49.0	50.9	49.8	45.3	52.2	37.2	38.2	42.0
Current expenditure	56.0	56.7	61.2	45.9	45.8	48.7	47.8	43.2	50.6	34.1	34.2	36.7
Of which: Interest expenses	2.2	3.7	5.3	6.5	6.9	9.8	14.6	14.6	20.2	8.4	4.4	4.0
Capital expenditure	5.4	5.6	3.2	2.0	3.1	2.2	2.0	2.1	1.6	3.1	4.0	5.3
Net lending	4.3	3.1	3.2	1.1	0.0	0.7	-0.4	0.1	0.2	-2.5	-1.4	-1.3
Primary balance	-1.9	2.8	-2.5	2.3	1.2	-2.2	9.8	9.4	4.8	10.5	7.1	5.5
Overall balance	-4.1	-0.9	-7.7	-4.2	-5.7	-12.0	-4.8	-5.2	-15.4	2.1	2.7	1.5
Financing	4.1	0.9	7.7	4.2	5.7	12.0	4.8	5.2	15.4	-2.1	-2.7	-1.5
Net external financing	-1.3	-1.3	-0.8	2.8	1.4	-0.9	1.6	-0.8	-1.9	0.3	-0.7	1.1
Domestic financing	5.5	2.2	8.6	1.4	4.3	13.0	3.1	6.0	17.3	-2.5	-2.0	-2.7

Source: *Government Finance Statistics*; and Bulgaria Ministry of Finance.

1/ Includes central government, social security, 279 municipalities and 3,881 communes, 16 extrabudgetary funds, and 64 extrabudgetary accounts and agencies on a gross basis.

2/ Includes the central government, social security, 279 municipalities and 3,881 communes, and 12 extrabudgetary funds on a net basis.

Table A27. Bulgaria: General Government Revenue (GFS Definition), 1988-99

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
	(In percent of GDP)											
Total revenue and grants	61.6	64.5	59.9	44.9	43.3	39.7	44.7	40.2	37.0	36.9	39.6	42.2
Total revenue	61.6	64.5	59.9	44.8	43.2	39.7	44.7	40.1	36.8	36.3	39.0	41.3
Current revenue	61.4	64.4	58.0	44.7	43.2	39.4	43.7	39.8	36.6	35.8	38.6	40.8
Tax revenue	49.8	51.9	44.5	39.1	34.3	30.5	33.8	30.9	27.7	28.5	31.2	31.8
Taxes on income and profits	24.7	28.2	23.1	20.9	13.0	7.8	8.8	8.9	9.2	10.4	8.7	7.9
Individuals	3.8	3.9	4.2	3.7	5.4	5.0	4.4	4.1	4.0	4.0	4.7	4.7
Corporate	17.0	18.4	14.0	13.9	5.9	2.1	3.4	3.9	4.2	5.2	2.7	2.1
Other	4.0	5.9	4.9	3.3	1.6	0.7	0.9	0.8	1.1	1.3	1.2	1.1
Social security contributions	10.4	10.5	10.7	8.7	10.6	9.9	8.6	7.6	6.8	6.8	7.7	8.3
Employers	10.3	10.5	10.6	8.5	10.0	9.2	7.5	6.7	6.2	6.7	7.1	7.0
Self-employed	0.0	0.0	0.0	0.1	0.4	0.4	0.6	0.5	0.2	0.1	0.2	0.4
Other	0.1	0.1	0.1	0.1	0.2	0.3	0.5	0.4	0.3	0.0	0.0	0.6
Payroll taxes	0.1	0.2	0.1	0.7	1.5	1.4	1.2	1.1	0.7	0.7	0.0	0.7
Property taxes	0.4	0.4	0.3	0.1	0.2	0.3	0.4	0.3	0.2	0.1	0.6	0.4
Taxes on goods and services	11.9	11.5	9.1	7.2	6.3	7.6	11.4	10.0	8.5	8.3	11.7	11.7
Turnover taxes, VAT	5.1	4.5	3.6	2.7	2.6	2.3	7.5	7.1	6.8	6.1	8.5	8.6
Excises	6.1	6.2	5.0	3.5	2.5	3.8	3.5	2.7	1.6	2.2	3.1	3.1
Other taxes on goods and services	0.8	0.8	0.5	1.0	1.2	1.5	0.4	0.2	0.1	0.0	0.0	0.0
Taxes on international trade	1.0	0.9	0.9	1.1	2.2	3.0	3.1	2.9	2.2	2.1	2.1	1.1
Import duties	0.8	0.9	0.9	0.8	1.8	2.6	2.4	2.2	1.7	2.1	2.0	1.1
Export duties	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Other taxes on international trade	0.2	0.0	0.0	0.4	0.4	0.5	0.7	0.7	0.5	0.0	0.0	0.0
Other taxes	1.3	0.3	0.3	0.4	0.7	0.4	0.3	0.1	0.1	0.0	0.4	1.5
Nontax revenue	11.5	12.5	13.5	5.6	8.9	8.9	9.9	8.9	8.9	7.2	7.4	9.0
Capital revenue	0.2	0.2	1.9	0.1	0.0	0.2	1.0	0.3	0.1	0.6	0.4	0.6
Grants	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.2	0.6	0.6	0.9

Source: *Government Finance Statistics*; and Bulgarian Ministry of Finance.

Table A28. Bulgaria: General Government Expenditure (GFS Definition), 1988-98

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
						(In percent of GDP)					
Total expenditure by functions (exc. net lending)	64.3	65.5	67.5	51.1	53.7	56.1	54.1	48.6	54.4	39.4	41.3
General public services	3.4	2.8	1.9	1.3	2.0	2.4	2.2	1.9	1.5	2.3	3.0
Defense	5.0	4.8	4.1	3.3	3.2	2.9	2.7	2.6	2.4	2.7	2.7
Public order and safety	1.2	1.2	1.1	1.4	1.9	1.8	1.8	1.8	1.4	1.7	2.1
Education	4.5	4.9	5.1	5.2	5.8	5.5	4.5	4.1	3.6	3.8	3.8
Health	3.6	3.4	3.9	4.0	5.2	4.7	4.0	3.7	3.2	3.6	3.6
Social security and welfare	11.7	12.0	12.8	14.3	14.8	15.9	13.5	11.1	9.5	9.6	11.6
Housing and other services	5.5	5.6	5.1	2.7	2.8	1.9	2.0	1.5	1.3	0.9	1.7
Recreational and cultural services	1.7	1.8	1.3	1.0	0.9	0.8	0.7	0.7	0.5	0.5	0.7
Fuel and energy	0.1	0.1	0.7	3.0	1.0	1.3	0.6	0.4	0.4	1.1	1.3
Agriculture, forestry, fishing, hunting	9.5	9.7	9.2	1.0	1.1	0.8	1.0	0.8	0.6	0.9	0.7
Nonfuels mining and mineral	6.9	5.8	4.9	0.2	0.8	0.6	0.5	0.3	0.2	0.1	0.1
Transport and communications	2.2	2.4	2.2	0.6	2.0	2.0	1.3	1.3	1.0	1.2	2.1
Other economic activities	3.6	4.0	6.8	3.3	0.4	0.4	0.3	0.3	5.5	2.5	1.0
Other (including natural disaster and interest)	5.4	7.0	8.5	9.8	11.7	15.1	18.9	18.0	23.4	8.5	7.0
Total expenditure and net lending by economic classifications	65.7	65.4	67.6	49.0	49.0	51.7	49.4	45.4	52.4	34.7	36.9
Total expenditure	61.4	62.3	64.4	47.9	49.0	50.9	49.8	45.3	52.2	37.2	38.2
Current expenditure	56.0	56.7	61.2	45.9	45.8	48.7	47.8	43.2	50.6	34.1	34.2
Wages and salaries	5.0	5.1	6.4	6.0	7.6	7.9	6.8	6.2	4.6	4.7	8.7
Operations and maintenance	20.3	20.5	22.2	15.7	14.7	12.5	11.3	10.0	10.1	10.3	7.8
Interest payments	2.2	3.7	5.3	6.5	6.9	9.8	14.6	14.6	20.2	8.4	4.4
Subsidies and other current transfers	28.4	27.5	27.3	17.8	16.6	18.5	15.1	12.3	15.7	10.7	13.3
Subsidies	17.1	15.9	15.1	4.3	2.8	3.6	2.3	1.7	6.7	1.9	2.6
Transfers to other levels of government	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Transfers to non profit organization	11.3	11.6	12.3	13.5	13.8	14.7	12.8	10.6	9.0	8.7	10.6
Capital expenditure	5.4	5.6	3.2	2.0	3.1	2.2	2.0	2.1	1.6	3.1	4.0
Net lending	4.3	3.1	3.2	1.1	0.0	0.7	-0.4	0.1	0.2	-2.5	-1.4

Source: *Government Finance Statistics*; and Bulgarian Ministry of Finance.

Table A29. Bulgaria: Summary of Central Government Operations (GFS Definition), 1988-99 1/

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
						(In millions of leva)						
Total revenue and grants	15	15	15	32	38	56	134	199	352	3,238	4,618	5,401
Total revenue	14	14	14	32	38	56	134	199	351	3,228	4,594	5,381
Current revenue	14	14	13	32	38	56	133	198	351	3,223	4,588	5,270
Tax revenue	11	12	10	29	30	41	102	160	287	2,729	3,995	4,022
Nontax revenue	3	3	3	3	8	15	32	38	64	494	593	1,248
Capital revenue	0	0	1	0	0	0	1	1	0	5	7	111
Grants	0	1	0	0	0	0	0	0	1	10	24	21
Total expenditure and net lending	15	15	18	32	46	82	150	235	514	3,099	3,711	4,536
Total expenditure	15	15	17	32	47	82	150	236	517	3,503	3,908	4,842
Current expenditure	14	14	16	31	45	79	146	231	510	3,347	3,562	4,395
Of which: Interest payments	1	1	2	9	13	28	71	124	326	1,328	843	890
Capital expenditure	1	1	1	1	2	2	4	5	6	155	345	447
Net lending	0	0	0	-1	-1	0	0	-1	-2	-404	-197	-306
Primary balance	1	1	0	10	5	3	55	88	163	1,467	1,750	1,755
Overall balance	0	0	-3	1	-8	-25	-16	-36	-163	139	908	865
Financing	0	0	3	4	11	34	34	57	191	151	-480	-1,023
Net external financing	-1	-1	0	-3	-2	-4	-3	-12	-50	-206	-451	56
Domestic financing	0	1	3	7	14	38	37	69	241	356	-29	-1,080
						(In percent of GDP)						
Total revenue and grants	37.9	37.6	32.5	23.8	19.1	18.8	25.5	22.6	20.1	18.9	21.4	24.0
Total revenue	37.2	36.3	31.5	23.6	19.1	18.8	25.5	22.6	20.1	18.9	21.3	23.9
Current revenue	37.0	36.1	29.6	23.5	19.1	18.7	25.4	22.5	20.1	18.8	21.3	23.4
Tax revenue	29.5	29.3	23.0	21.1	15.1	13.7	19.4	18.2	16.4	16.0	18.5	17.9
Nontax revenue	7.6	6.8	6.6	2.4	4.0	5.0	6.0	4.3	3.7	2.9	2.7	5.5
Capital revenue	0.2	0.2	1.9	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.5
Grants	0.7	1.3	1.0	0.3	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Total expenditure and net lending	38.1	37.7	38.6	23.2	22.9	27.3	28.4	26.7	29.4	18.1	17.2	20.1
Total expenditure	38.4	37.4	37.7	23.9	23.5	27.4	28.5	26.8	29.6	20.5	18.1	21.5
Current expenditure	35.3	34.6	36.2	23.1	22.4	26.6	27.8	26.2	29.2	19.6	16.5	19.5
Of which: Interest payments	2.2	3.7	5.3	6.4	6.5	9.3	13.4	14.1	18.6	7.8	3.9	4.0
Capital expenditure	3.1	2.8	1.5	0.7	1.1	0.8	0.7	0.6	0.4	0.9	1.6	2.0
Net lending	-0.3	0.2	0.9	-0.7	-0.6	-0.1	0.0	-0.1	-0.1	-2.4	-0.9	-1.4
Primary balance	2.0	3.6	-0.9	7.0	2.7	0.8	10.5	10.0	9.3	8.6	8.1	7.8
Overall balance	-0.2	0.0	-6.1	0.6	-3.8	-8.5	-3.0	-4.1	-9.3	0.8	4.2	3.8
Financing	-0.1	0.9	6.3	3.3	5.7	11.5	6.5	6.5	10.9	0.9	-2.2	-4.5
Net external financing	-1.3	-1.3	-0.8	-2.2	-1.1	-1.3	-0.5	-1.3	-2.9	-1.2	-2.1	0.3
Domestic financing	1.2	2.2	7.1	5.5	6.8	12.8	7.0	7.9	13.8	2.1	-0.1	-4.8

Source: *Government Finance Statistics*; and Bulgarian Ministry of Finance.

1/ Includes the National Assembly, the Office of the Council of Ministers, the Office of the President, five ministries and 9 committees, and the budgets of the Judicial authorities.

Table A30. Bulgaria: Summary of Social Security Institutions (GFS Definition), 1988-99

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
						(In millions of leva)						
Total revenue and grants	4	4	5	12	21	30	45	67	120	1193	1892	2092
Total revenue	4	4	5	12	21	30	45	67	120	1193	1892	2092
Current revenue	4	4	5	12	21	30	45	67	120	1193	1892	2092
Tax revenue	4	4	5	12	21	30	45	67	118	1167	1658	2029
Of which: Contributions	4	4	5	12	21	30	45	67	118	1167	1658	1861
Employers	4	4	5	11	20	27	39	59	109	1142	1527	1560
Self-employed	0	0	0	0	1	1	3	5	4	22	42	80
Nontax revenue	0	0	0	0	0	0	0	0	2	26	234	63
Capital revenue	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0
Total expenditure and net lending	4	4	5	16	25	39	60	82	138	1287	2217	2578
Total expenditure	4	4	5	16	25	39	60	82	138	1287	2238	2578
Current expenditure	4	4	5	16	25	39	60	82	138	1284	2228	2480
Of which: Goods and services	0	0	0	0	0	0	0	0	1	10	33	56
Transfers	4	4	5	16	25	39	59	81	137	1274	2195	2424
Capital expenditure	0	0	0	0	0	0	0	0	0	3	10	98
Net lending	0	0	0	0	0	0	0	0	0	0	-21	0
Overall balance	0	0	0	-5	-4	-9	-14	-15	-18	-93	-326	-486
						(In percent of GDP)						
Total revenue and grants	10.4	10.5	10.7	8.7	10.6	9.9	8.6	7.6	6.8	7.0	8.8	9.3
Total revenue	10.4	10.5	10.7	8.7	10.6	9.9	8.6	7.6	6.8	7.0	8.8	9.3
Current revenue	10.4	10.5	10.7	8.7	10.6	9.9	8.6	7.6	6.8	7.0	8.8	9.3
Tax revenue	10.4	10.5	10.7	8.7	10.6	9.9	8.6	7.6	6.8	6.8	7.7	9.0
Nontax revenue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	1.1	0.3
Capital revenue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Grants	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total expenditure and net lending	10.2	10.4	11.0	12.1	12.4	13.0	11.3	9.3	7.9	7.5	10.3	11.5
Total expenditure	10.2	10.4	11.0	12.1	12.4	13.0	11.3	9.3	7.9	7.5	10.4	11.5
Current expenditure	10.2	10.4	11.0	12.1	12.4	13.0	11.3	9.3	7.9	7.5	10.3	11.0
Capital expenditure	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Net lending	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0
Overall balance	0.2	0.1	-0.4	-3.5	-1.8	-3.1	-2.7	-1.7	-1.0	-0.5	-1.5	-2.2

Source: *Government Finance Statistics*; and Bulgarian Ministry of Finance.

Table A31. Bulgaria: Summary of Municipalities' Operations (GFS Definition), 1988-99

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
						(In millions of leva)						
Total revenue and grants	5	5	6	15	25	34	48	67	111	1011	1666	1974
Total revenue	4	5	5	11	15	19	25	38	73	652	1027	1215
Current revenue	4	5	5	11	15	18	25	38	72	641	1012	1215
Tax revenue	4	4	5	11	14	16	21	29	60	577	910	848
Nontax revenue	0	0	0	0	1	2	4	9	13	64	101	367
Capital revenue	0	0	0	0	0	0	1	1	1	11	16	0
Grants from other levels of government	1	1	1	4	9	15	22	29	38	358	638	759
Total expenditure and net lending	5	5	6	15	26	34	48	67	111	999	1682	2011
Total expenditure	5	5	6	15	26	34	48	67	111	998	1682	2028
Current expenditure	4	4	5	13	23	30	44	62	104	919	1470	1756
Capital expenditure	1	1	1	2	3	3	4	5	6	79	212	272
Net lending	0	0	0	0	0	0	0	0	0	1	0	-17
Overall balance	0	0	0	0	-2	0	-1	0	0	11	-17	-38
Financing	0	0	0	0	2	0	1	0	0	-11	17	38
Net external financing	0	0	0	0	0	0	0	0	0	0	0	80
Domestic financing	0	0	0	0	2	0	1	0	0	-11	17	-43
From other levels of government	0	0	0	0	1	0	0	0	0	0	3	0
Banking system	0	0	0	0	1	0	0	0	0	-11	14	0
Nonbanking system	0	0	0	0	0	0	0	0	0	0	0	-43
						(In percent of GDP)						
Total revenue and grants	11.9	13.4	12.9	11.2	12.2	11.4	9.1	7.6	6.3	5.9	7.7	8.8
Total revenue	9.7	11.5	10.8	8.3	7.6	6.2	4.8	4.4	4.2	3.8	4.8	5.4
Current revenue	9.7	11.5	10.8	8.3	7.6	6.1	4.7	4.3	4.1	3.8	4.7	5.4
Tax revenue	9.2	11.1	9.9	8.1	6.8	5.4	3.9	3.3	3.4	3.4	4.2	3.8
Nontax revenue	0.5	0.4	0.9	0.2	0.7	0.7	0.8	1.0	0.7	0.4	0.5	1.6
Capital revenue	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Grants from other levels of government	2.2	1.9	2.0	2.9	4.7	5.1	4.2	3.3	2.1	2.1	3.0	3.4
Total expenditure and net lending	11.8	13.2	12.3	11.0	13.0	11.3	9.2	7.6	6.3	5.8	7.8	8.9
Total expenditure	11.8	13.2	12.3	11.0	13.0	11.3	9.2	7.6	6.3	5.8	7.8	9.0
Current expenditure	9.6	10.6	10.8	9.7	11.3	10.2	8.3	7.1	6.0	5.4	6.8	7.8
Capital expenditure	2.2	2.7	1.6	1.2	1.7	1.1	0.8	0.6	0.4	0.5	1.0	1.2
Net lending	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1
Overall balance	0.0	0.2	0.6	0.3	-0.8	0.1	-0.1	0.0	0.0	0.1	-0.1	-0.2
Financing	0.0	-0.2	-0.6	-0.3	0.8	-0.1	0.1	0.0	0.0	-0.1	0.1	0.2
Net external financing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Domestic financing	0.0	-0.2	-0.6	-0.3	0.8	-0.1	0.1	0.0	0.0	-0.1	0.1	-0.2
From other levels of government	0.0	0.1	-0.1	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Banking system	-0.1	-0.3	-0.4	-0.3	0.4	-0.1	0.1	0.0	0.0	-0.1	0.1	0.0
Nonbanking system	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2

Source: *Government Finance Statistics*; and Bulgarian Ministry of Finance.

Table A32. Bulgaria: Monetary Survey, 1991-99

	1991	1992	1993	1994	1995	1996	1997	1998	1999
					(In millions of leva)				
Broad money	103	159	234	418	584	1,310	6,019	6,597	7,351
Lev money	69	118	187	282	425	649	3,395	4,013	4,475
Deposits	57	99	161	243	363	523	2,080	2,271	2,518
Notes and coins	12	18	25	39	62	127	1,314	1,742	1,957
Foreign currency	35	41	48	136	159	661	2,624	2,584	2,876
Net foreign assets	-1	-12	-23	49	71	158	4,851	5,272	6,049
Of which: BNB	1	7	-1	-18	12	-235	2,719	3,251	3,839
DMB 1/	-1	-19	-22	66	59	393	2,132	2,021	2,210
Net domestic assets	104	171	257	369	513	1,152	1,167	1,325	1,303
Lev credit	84	122	204	269	411	651	1,036	1,359	1,076
Government	14	30	103	120	207	417	104	-222	-844
Non-government	70	92	101	149	204	235	932	1,581	1,920
Public enterprise 2/	57	74	76	112	98	95	336	300	216
Private sector 2/	13	18	25	38	106	139	595	1,281	1,703
FX credit	78	120	192	279	217	1,422	4,101	2,868	3,162
Government	32	59	90	157	62	485	1,538	732	1,000
Non-government	46	61	102	122	155	937	2,563	2,136	2,162
Public enterprise (SOE)	46	61	91	78	71	430	918	646	497
Private sector	n.a.	n.a.	11	44	84	507	1,646	1,490	1,665
Other items net	-58	-72	139	-179	-116	-921	-3,969	-2,902	-2,935
					(Percent change from previous year)				
Broad money	110.0	53.6	47.6	78.6	39.6	124.5	359.3	9.6	11.4
Lev money	58.9	71.1	58.6	51.0	50.9	52.7	423.0	18.2	11.5
Foreign currency deposits	485.2	18.8	16.2	186.5	16.4	316.4	296.8	-1.5	11.3
Real broad money	-52.1	-14.4	-9.9	-19.5	5.1	-45.4	-32.3	8.6	5.0
Real lev money	-63.8	-4.6	-3.2	-32.0	13.5	-62.8	-22.9	17.1	5.1
Real lev credit	-66.7	-18.6	2.1	-40.6	14.9	-61.4	-76.6	30.0	-25.4
					(In millions of U.S. dollars)				
Foreign currency deposits	1,529	1,673	1,455	2,066	2,245	1,357	1,477	1,543	1,477
(In percent of broad money)	33	26	20	33	27	51	44	39	39
Net foreign assets	-33	-491	-713	740	1,001	325	2,731	3,148	3,107
Of which: BNB	21	299	-28	-265	171	-481	1,531	1,941	1,972
DMB 1/	-54	-790	-685	1,004	830	806	1,200	1,207	1,135
Foreign exchange credit	3,569	4,915	5,871	4,224	3,075	1,754	2,308	1,712	1,624
Government	1,478	2,424	2,765	2,375	881	832	865	437	513
Non-government	2,091	2,490	3,106	1,849	2,194	1,922	1,443	1,275	1,110
Public enterprise (SOE)	...	...	2,784	1,184	1,011	882	517	385	255
Private sector	...	...	323	665	1,184	1,040	926	890	855

Source: Bulgarian National Bank.

1/ Foreign liabilities of DMBs are adjusted to exclude debt of the government, using estimates prior to 1995.

2/ Introduction of a new Chart of Accounts in June 1995 reclassified credit from state enterprise to the private sector.

Table A33. Bulgaria: Foreign Assets of the Banking System, 1991-1999

	BNB International Reserves						Deposit Money Banks		Banking System	
	Gross reserves 1/	IMF purchases	Net reserves	Gross liabilities	Net foreign assets	Reserves less gold	Foreign assets 2/	Foreign currency deposits 3/	Foreign assets	Broad money
	(In millions of U.S. dollars)									
1991: March	455	186	270	186	270	150	1,352	1,674	1,807	4,446
June	459	248	211	248	211	154	1,428	1,568	1,887	4,131
Sep.	645	327	318	512	133	340	1,664	1,529	2,309	4,308
Dec.	636	414	222	614	21	331	1,477	1,582	2,112	4,732
1992: March	918	461	457	822	96	613	1,434	1,619	2,351	4,893
June	1,118	527	591	916	202	813	1,503	1,512	2,621	5,179
Sep.	1,409	631	778	1,032	376	1,104	1,698	1,656	3,106	6,088
Dec.	1,240	590	649	941	299	935	1,516	1,462	2,755	6,255
1993: March	1,182	643	539	991	191	877	1,390	1,475	2,572	6,215
June	1,316	642	674	1,010	306	1,011	1,247	1,425	2,563	6,867
Sep.	1,200	652	548	1,024	177	895	1,375	1,456	2,575	7,378
Dec.	960	633	328	988	-28	655	1,331	1,455	2,291	7,156
1994: March	941	650	291	1,034	-93	636	1,316	1,548	2,257	4,619
June	1,434	854	580	1,270	164	1,124	1,576	1,748	3,010	5,874
Sep.	1,052	978	73	1,406	-354	742	1,846	2,175	2,897	6,143
Dec.	1,311	941	370	1,576	-265	1,002	1,659	2,066	2,970	6,332
1995: March	1,437	961	476	1,634	-197	1,127	1,674	2,024	3,110	6,768
June	1,809	900	909	1,577	232	1,500	1,381	2,055	3,190	7,537
Sep.	1,743	799	944	1,464	279	1,434	1,554	2,267	3,297	7,982
Dec.	1,546	717	829	1,374	171	1,236	1,426	2,245	2,972	8,255
1996: March	953	630	323	1,277	-324	644	1,447	2,083	2,400	7,411
June	883	566	316	1,209	-326	573	1,192	1,661	2,075	4,489
Sep.	780	625	155	1,320	-540	471	1,235	1,525	2,015	3,594
Dec.	793	585	208	1,274	-481	483	1,248	1,357	2,041	2,689
1997: March	826	528	298	1,183	-357	517	1,331	1,311	2,157	1,940
June	1,654	701	952	1,333	321	1,344	1,547	1,399	3,201	2,334
Sep.	2,233	891	1,342	891	1,342	1,923	1,721	1,461	3,954	2,917
Dec.	2,474	943	1,531	943	1,531	2,164	1,603	1,477	4,077	3,388
1998: March	2,570	909	1,662	909	1,662	2,260	1,613	1,465	4,183	3,249
June	2,612	1,043	1,569	1,043	1,569	2,303	1,640	1,469	4,252	3,340
Sep.	2,484	982	1,502	982	1,502	2,180	1,901	1,589	4,385	3,624
Dec.	3,056	1,117	1,939	1,117	1,939	2,760	1,688	1,542	4,392	3,938
1999: March	2,780	1,118	1,662	1,118	1,662	2,497	1,510	1,423	4,416	3,439
June	2,726	1,134	1,592	1,134	1,592	2,456	1,443	1,415	4,290	3,265
Sep.	2,882	1,221	1,660	1,221	1,660	2,600	1,689	1,503	4,607	3,637
Dec.	3,222	1,251	1,970	1,251	1,970	2,957	1,565	1,477	4,916	3,776

Sources: Bulgarian National Bank; and staff calculations.

1/ Gross reserves net of outstanding purchases from the IMF.

2/ Includes claims in non-convertible currency and other illiquid assets in addition to claims on nonresident banks.

3/ Foreign currency denominated time deposits of households, SOEs, and the private sector.

Table A34. Bulgaria: Composition of Broad Money, 1991-1999

		Currency Outside Banks	Demand Deposits	Narrow Money (M1)	Savings Deposits	Time & other Deposits 1/	Lev Money	Foreign Currency Deposit	Broad Money (M3)
					(In millions of leva)				
1991:	March	7	11	18	15	9	42	25	67
	June	8	10	18	13	14	45	28	73
	Sep.	9	13	22	12	19	53	29	82
	Dec.	12	15	27	16	26	69	35	103
1992:	March	12	12	24	15	37	76	38	113
	June	13	12	25	15	45	84	35	119
	Sep.	16	16	32	16	53	100	38	138
	Dec.	18	20	38	20	59	117	36	153
1993:	March	17	15	33	20	73	126	39	165
	June	20	17	37	21	87	145	38	183
	Sep.	23	21	44	22	100	166	41	207
	Dec.	25	23	48	28	110	187	48	234
1994:	March	27	23	50	28	121	199	101	300
	June	30	25	55	30	136	221	94	315
	Sep.	33	30	64	31	148	243	133	376
	Dec.	39	37	75	41	166	282	136	418
1995:	March	37	35	71	44	199	314	134	448
	June	47	30	76	40	246	362	136	498
	Sep.	54	36	90	43	256	389	154	543
	Dec.	62	46	108	58	259	425	159	584
1996:	March	57	36	93	56	271	420	164	584
	June	70	42	112	55	273	440	258	698
	Sep.	85	57	143	52	281	476	351	827
	Dec.	127	110	237	82	331	649	661	1,310
1997:	March	266	197	463	91	507	1,061	2,089	3,150
	June	553	331	884	100	622	1,606	2,405	4,011
	Sep.	967	607	1,574	162	810	2,545	2,579	5,124
	Dec.	1,314	953	2,267	227	901	3,395	2,624	6,019
1998:	March	1,285	769	2,054	238	979	3,272	2,686	5,958
	June	1,416	743	2,160	254	973	3,386	2,659	6,045
	Sep.	1,463	745	2,209	259	937	3,405	2,659	6,064
	Dec.	1,742	1,014	2,756	292	965	4,013	2,584	6,597
1999:	March	1,567	832	2,399	307	963	3,670	2,591	6,261
	June	1,479	799	2,278	312	914	3,504	2,679	6,184
	Sep.	1,687	887	2,574	341	999	3,913	2,757	6,669
	Dec.	1,957	1,039	2,997	388	1,091	4,475	2,876	7,351
					(In percent of broad money)				
1991:	March	10.9	15.8	26.7	21.9	13.8	62.3	37.7	100.0
	June	11.1	14.0	25.1	18.0	19.0	62.0	38.0	100.0
	Sep.	11.4	15.6	27.0	14.8	22.7	64.5	35.5	100.0
	Dec.	11.5	14.6	26.1	15.4	25.1	66.6	33.4	100.0
1992:	March	10.4	10.7	21.1	12.9	32.9	66.9	33.1	100.0
	June	10.7	10.4	21.0	12.3	37.4	70.8	29.2	100.0
	Sep.	11.6	11.5	23.1	11.4	38.4	72.8	27.2	100.0
	Dec.	11.9	12.8	24.7	13.2	38.7	76.6	23.4	100.0
1993:	March	10.5	9.2	19.8	12.3	44.2	76.3	23.7	100.0
	June	11.0	9.1	20.2	11.5	47.6	79.3	20.7	100.0
	Sep.	11.3	9.9	21.2	10.8	48.3	80.3	19.7	100.0
	Dec.	10.7	9.9	20.6	12.0	47.0	79.7	20.3	100.0
1994:	March	8.9	7.8	16.7	9.4	40.4	66.5	33.5	100.0
	June	9.6	7.8	17.4	9.5	43.3	70.2	29.8	100.0
	Sep.	8.8	8.1	16.9	8.3	39.4	64.6	35.4	100.0
	Dec.	9.2	8.8	18.0	9.8	39.6	67.4	32.6	100.0
1995:	March	8.1	7.7	15.8	9.7	44.5	70.1	29.9	100.0
	June	9.4	5.9	15.3	8.1	49.4	72.7	27.3	100.0
	Sep.	10.0	6.5	16.5	7.9	47.2	71.6	28.4	100.0
	Dec.	10.6	7.9	18.5	9.9	44.4	72.8	27.2	100.0
1996:	March	9.8	6.1	15.9	9.6	46.4	71.9	28.1	100.0
	June	10.1	6.0	16.1	7.8	39.1	63.0	37.0	100.0
	Sep.	10.3	6.9	17.3	6.3	34.0	57.6	42.4	100.0
	Dec.	9.7	8.4	18.1	6.2	25.2	49.5	50.5	100.0
1997:	March	8.6	6.3	14.9	2.6	14.8	32.4	67.6	100.0
	June	13.8	8.3	22.0	2.5	15.5	40.0	60.0	100.0
	Sep.	18.9	11.8	30.7	3.2	15.8	49.7	50.3	100.0
	Dec.	21.8	15.8	37.7	3.8	15.0	56.4	43.6	100.0
1998:	March	21.6	12.9	34.5	4.0	16.4	54.9	45.1	100.0
	June	23.4	12.3	35.7	4.2	16.1	56.0	44.0	100.0
	Sep.	24.1	12.3	36.4	4.3	15.5	56.1	43.8	100.0
	Dec.	26.4	15.4	41.8	4.4	14.6	60.8	39.2	100.0
1999:	March	25.0	13.3	38.3	4.9	15.4	58.6	41.4	100.0
	June	23.9	12.9	36.8	5.1	14.8	56.7	43.3	100.0
	Sep.	25.3	13.3	38.6	5.1	15.0	58.7	41.3	100.0
	Dec.	26.6	14.1	40.8	5.3	14.8	60.9	39.1	100.0

Source: Bulgarian National Bank.

1/ Other deposits consist of lev-denominated import and restricted deposits, plus money market instruments denominated in lev.

Table A35. Bulgaria: Nominal Interest Rates and Exchange Rates, 1991-99

		BNB Basic Rate		DMB Lending Rate		Time Deposit Rate		Time Deposit	Lev per U.S. Dollar	
		Monthly	Annual	Monthly	Annual	Monthly	Annual	U.S. dollar 1/	End-month	Month average
		(In percent, lev denominated unless otherwise noted)								
1991:	March	3.8	55.5	4.1	62.3	3.0	42.1	...	0.0152	0.0159
	June	4.2	63.1	4.5	70.4	3.1	44.1	...	0.0176	0.0181
	Sep.	4.5	69.6	5.0	78.8	3.7	53.8	...	0.0190	0.0183
	Dec.	4.5	69.6	5.2	83.9	3.9	57.7	...	0.0219	0.0217
1992:	March	4.5	69.6	5.3	85.2	4.2	64.5	...	0.0232	0.0236
	June	4.5	69.6	5.3	85.2	4.2	64.6	...	0.0230	0.0231
	Sep.	3.6	52.5	4.4	68.4	3.1	44.9	...	0.0226	0.0223
	Dec.	3.4	49.7	4.2	64.6	3.2	45.3	...	0.0245	0.0248
1993:	March	4.3	64.8	5.2	82.9	3.9	57.4	4.7	0.0265	0.0266
	June	4.0	60.7	4.9	78.4	3.4	49.2	4.7	0.0267	0.0266
	Sep.	3.7	54.1	4.6	71.7	3.2	45.6	4.7	0.0280	0.0276
	Dec.	4.3	66.4	5.2	83.7	3.6	53.6	5.1	0.0327	0.0320
1994:	March	4.9	77.9	5.7	95.2	4.0	60.8	5.6	0.0649	0.0472
	June	5.2	83.0	5.9	99.9	4.2	64.0	5.7	0.0537	0.0544
	Sep.	5.8	97.5	6.4	111.0	4.5	69.0	5.4	0.0612	0.0613
	Dec.	6.0	101.2	6.7	117.8	4.6	72.3	5.9	0.0660	0.0655
1995:	March	6.0	101.2	6.8	119.5	4.7	72.7	5.7	0.0662	0.0660
	June	4.3	66.4	5.1	81.2	2.9	41.4	6.2	0.0661	0.0661
	Sep.	2.8	39.8	3.6	53.2	1.9	25.3	5.9	0.0001	0.0001
	Dec.	2.8	39.8	3.5	51.4	1.9	25.3	6.6	0.0707	0.0703
1996:	Jan.	2.8	39.8	3.5	50.9	1.9	25.0	6.6	0.0739	0.0725
	Feb.	3.4	49.5	4.0	60.5	2.2	29.4	6.5	0.0761	0.0746
	March	4.0	59.9	4.6	71.5	2.6	35.3	5.8	0.0788	0.0779
	April	4.3	66.3	5.0	78.8	2.7	37.7	4.6	0.0894	0.0815
	May	8.0	151.3	8.4	163.2	4.4	67.8	6.0	0.1470	0.1195
	June	9.0	181.3	9.8	205.4	5.0	78.8	6.1	0.1555	0.1431
	July	9.0	181.3	9.7	203.7	4.9	78.4	5.7	0.1871	0.1801
	Aug.	9.0	181.3	9.7	202.7	4.9	78.4	5.8	0.2020	0.1918
	Sep.	11.4	264.1	12.1	292.1	5.4	87.3	5.6	0.2300	0.2246
	Oct.	22.8	1,079.4	24.2	1,246.0	19.9	779.2	4.9	0.2396	0.2243
	Nov.	15.5	463.6	16.8	546.0	11.0	248.0	4.7	0.3499	0.2834
	Dec.	15.0	435.0	15.8	480.8	9.9	211.8	4.8	0.4874	0.4612
1997:	Jan.	15.2	443.5	16.1	502.3	10.5	231.0	4.7	1.0219	0.6986
	Feb.	16.5	525.0	17.9	622.1	10.9	247.6	4.7	2.0455	2.3872
	March	18.0	628.8	19.3	727.0	10.9	247.6	4.9	1.5887	1.6601
	April	13.4	351.7	15.0	436.7	8.3	161.5	4.6	1.4678	1.5441
	May	5.1	81.4	5.9	98.3	3.0	43.0	4.9	1.5681	1.5326
	June	3.0	42.7	3.8	56.4	1.5	19.7	4.8	1.7186	1.6684
	July	0.7	8.5	1.1	14.4	0.3	4.2	4.1	1.8438	1.7881
	Aug.	0.5	5.8	0.9	11.0	0.2	2.8	3.8	1.8090	1.8442
	Sep.	0.5	6.3	1.0	12.7	0.2	3.0	3.8	1.7628	1.7919
	Oct.	0.5	5.6	0.9	11.2	0.3	3.1	3.8	1.7190	1.7512
	Nov.	0.5	5.6	1.0	12.5	0.2	3.0	3.8	1.7670	1.7311
	Dec.	0.6	7.0	1.1	13.9	0.3	3.0	4.1	1.7765	1.7748
1998:	Jan.	0.5	6.6	1.2	14.9	0.2	3.0	4.0	1.8092	1.8157
	Feb.	0.5	5.9	1.1	14.4	0.2	2.9	3.9	1.8202	1.8149
	March	0.4	5.5	1.1	13.8	0.2	2.8	4.1	1.8340	1.8267
	April	0.4	5.5	1.1	14.6	0.2	2.8	3.8	1.7980	1.8182
	May	0.4	5.4	1.2	15.4	0.2	2.7	3.9	1.7824	1.7749
	June	0.4	5.3	1.1	14.3	0.2	2.7	4.3	1.8102	1.7906
	July	0.4	5.3	1.1	13.9	0.2	3.0	3.8	1.7690	1.7992
	Aug.	0.4	5.3	1.0	13.2	0.3	3.3	3.9	1.7918	1.7890
	Sep.	0.4	5.2	1.1	13.4	0.3	3.3	4.0	1.6732	1.7325
	Oct.	0.4	5.3	1.1	14.1	0.3	3.3	3.9	1.6475	1.6604
	Nov.	0.4	5.4	1.1	14.1	0.3	3.3	3.9	1.7026	1.6751
	Dec.	0.4	5.2	1.1	13.5	0.3	3.3	3.9	1.6751	1.6711
1999:	Jan.	0.4	5.2	1.1	14.4	0.3	3.3	3.9	1.7181	1.6846
	Feb.	0.4	5.1	1.1	13.7	0.3	3.3	3.7	1.7751	1.7453
	March	0.4	5.0	1.1	14.6	0.3	3.3	3.8	1.8207	1.7973
	April	0.4	4.8	1.1	13.8	0.3	3.3	3.7	1.8456	1.8280
	May	0.4	4.6	1.0	13.3	0.3	3.3	3.7	1.8705	1.8414
	June	0.4	4.5	1.1	13.8	0.3	3.3	3.7	1.8937	1.8847
	July	0.4	4.9	1.0	12.4	0.3	3.3	3.7	1.8289	1.8899
	Aug.	0.4	4.9	1.1	13.8	0.3	3.2	3.7	1.8498	1.8447
	Sep.	0.4	4.8	1.1	13.6	0.3	3.2	3.7	1.8339	1.8631
	Oct.	0.4	4.6	1.1	13.4	0.3	3.2	3.7	1.8711	1.8270
	Nov.	0.4	4.5	1.1	13.5	0.3	3.2	3.9	1.9395	1.8923
	Dec.	0.4	4.6	1.0	12.4	0.3	3.2	4.1	1.9469	1.9356

Sources: Bulgarian National Bank; and staff estimates.

1/ Annual interest rate on U.S. dollar denominated deposits with commercial banks.

Table A36. Bulgaria: Real Interest Rates and Uncovered Interest Differentials, 1991-1999

		Lev Time Deposit Rate		CPI Inflation		Real Time Deposit Rate		Annual Interest on	Lev per U.S. Dollar	Uncovered Interest Differential 4/	
		Monthly	Annual	Monthly	Annual 1/	Monthly	Annual	U.S. dollar deposits 2/	Appreciation 3/	Monthly	Annual
						(In percent)					
1991:	March	3.0	42.1	45.7	...	6.6	...	6.6	-44.9	-43.6	-99.9
	June	3.1	44.1	2.8	...	0.3	3.5	6.2	-2.1	0.4	5.4
	Sep.	3.7	53.8	5.9	...	-2.1	-22.6	5.6	-0.3	2.8	39.8
	Dec.	3.9	57.7	3.2	...	0.6	7.8	4.6	-5.6	-2.3	-24.2
1992:	March	4.2	64.5	4.8	153.6	-0.6	-6.6	4.4	-2.8	1.0	12.7
	June	4.2	64.6	6.9	87.6	-2.5	-26.1	4.0	0.7	4.7	72.9
	Sep.	3.1	44.9	2.5	76.2	0.7	8.4	3.3	1.7	4.1	61.9
	Dec.	3.2	45.3	5.8	79.0	-2.5	-26.4	3.6	-7.6	-0.7	-8.5
1993:	March	3.9	57.4	5.7	95.2	-1.8	-19.4	4.7	-7.7	1.1	14.1
	June	3.4	49.2	4.4	68.3	-1.0	-11.3	4.7	-0.6	3.0	42.4
	Sep.	3.2	45.6	2.4	33.5	0.7	9.0	4.7	-4.8	1.5	19.9
	Dec.	3.6	53.6	4.2	64.3	-0.6	-6.5	5.1	-14.3	-1.8	-19.3
1994:	March	4.0	60.8	7.5	84.7	-1.1	-12.9	5.6	-49.6	-9.0	-67.9
	June	4.2	64.0	4.1	249.1	-6.1	-53.0	5.7	21.0	-1.0	-11.8
	Sep.	4.5	69.0	11.0	90.9	-1.1	-11.5	5.4	-12.3	-0.1	-0.9
	Dec.	4.6	72.3	5.0	97.1	-1.1	-12.6	5.9	-7.3	1.9	24.7
1995:	March	4.7	72.7	3.4	54.2	1.0	12.0	5.7	-0.1	3.9	58.8
	June	2.9	41.4	0.5	14.3	1.8	23.7	6.2	-2.9	2.8	39.1
	Sep.	1.9	25.3	4.8	30.7	-0.4	-4.2	5.9	-3.8	-1.4	-15.7
	Dec.	1.9	25.3	2.6	35.4	-0.6	-7.5	6.6	-10.3	-2.5	-26.1
1996:	March	2.6	30.7	1.7	26.2	0.3	3.5	5.8	-65.7	-8.7	-66.5
	June	5.0	69.5	20.3	275.3	-6.4	-54.8	6.1	-52.8	-47.3	-100.0
	Sep.	5.4	81.4	18.8	764.7	-12.2	-79.0	5.6	-69.3	-29.3	-98.4
	Dec.	9.9	348.5	26.9	595.2	-3.6	-35.5	4.8	-7.6	-46.7	-99.9
1997:	March	10.9	242.4	12.3	92936.6	-37.3	-99.6	4.9	-3.3	-66.2	-100.0
	June	1.5	65.7	0.8	25.2	0.7	32.4	4.8	-3.1	-2.1	-22.0
	Sep.	0.2	3.7	3.6	64.7	-3.2	-37.1	3.8	1.3	1.3	16.1
	Dec.	0.3	3.0	1.5	10.5	-1.2	-6.8	4.1	8.2	8.1	154.5
1998:	March	0.2	2.4	-0.1	15.6	0.3	-11.4	4.1	-8.1	-8.2	-64.2
	June	0.2	2.7	-1.9	-5.1	2.1	8.3	4.3	-3.9	-4.0	-38.5
	Sep.	0.3	3.7	3.0	2.4	-2.7	1.3	4.0	3.3	3.2	46.1
	Dec.	0.3	3.3	-0.7	-7.5	1.0	11.6	3.9	-5.8	-5.9	-51.5
1999:	March	0.3	3.2	-1.0	-0.7	1.3	4.0	3.8	-8.0	-8.0	-63.4
	June	0.3	3.2	-0.5	-7.0	0.7	10.9	3.7	-3.9	-3.9	-37.9
	Sep.	0.3	3.2	1.5	25.2	-1.2	-17.6	3.7	3.3	3.2	46.3
	Dec.	0.3	3.2	0.7	10.0	-0.4	-6.2	4.1	-5.8	-5.9	-51.6

Sources: Bulgarian National Bank; and staff estimates.

1/ Change in CPI over previous three months, in monthly and annualized terms.

2/ Annual interest rate on U.S. dollar time deposits, or annual rate on three-month LIBOR when this is not available.

3/ Monthly rate of appreciation in lev per U.S. dollar over previous three-month period.

4/ Differential in return on lev and U.S. dollar time deposits, based on three-month rate of exchange rate appreciation (positive if differential in favor of lev).

Table A37. Bulgaria: National Bank Balance Sheet, 1992-99

	1992	1993	1994	1995	1996	1997				1998				1999			
	Dec.	Dec.	Dec.	Dec.	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec
								(In millions of leva)									
Reserve money	45	53	83	129	247	609	1,110	1,610	2,174	2,095	2,074	2,045	2,387	2,200	2,163	2,290	2,722
Currency in circulation	23	28	43	69	138	299	599	1,032	1,420	1,360	1,490	1,557	1,845	1,659	1,587	1,796	2,080
DMB reserves (net)	23	24	40	67	109	310	508	577	746	734	581	488	542	541	576	493	642
Required reserves	6	11	32	48	111	243	296	396	444	460	488	511	472	498	501	529	566
DMBs reserves (FX)	2	1	2	7	0	113	104	123	124	132	134	132	162	195	257	191	179
Excess reserves	4	4	2	1	-2	66	211	180	303	274	93	-24	70	43	76	-36	76
Other	0	1	0	0	0	0	4	1	8	1	3	0	0	0	0	1	0
Net foreign assets	7	-1	-18	-10	-235	-566	1,580	2,364	2,719	3,061	3,356	3,022	3,248	3,027	3,015	3,044	3,836
Net domestic assets	38	54	100	139	482	1,175	-470	-754	-545	-966	-1,281	-977	-861	-827	-852	-754	-1,114
Government credit (net)	22	34	41	26	147	366	8	-236	-72	-389	-713	-391	-282	-159	-287	-154	-490
Claims on DMBs (FX)	4	10	19	19	113	348	159	160	182	129	117	110	109	104	103	94	94
Claims on DMBs (leva)	15	17	29	24	125	139	153	155	153	154	148	148	148	144	143	139	135
Other items net	-4	-8	11	70	96	322	-789	-833	-808	-860	-834	-844	-835	-916	-812	-832	-852
Leva per U.S. dollar	0.025	0.033	0.066	0.071	0.487	1.589	1.719	1.763	0.002	1.834	1.810	1.673	1.675	1.821	1.894	1.834	1.947
								(Percent change from previous year, or previous quarter from 1997 on)									
Memorandum items:																	
Broad money	53.6	47.6	11.2	10.2	124.5	140.4	27.3	27.8	17.5	-1.0	1.5	0.3	8.8	-5.1	-1.2	7.9	10.2
Lev money	71.1	58.6	15.9	12.3	52.7	63.4	51.4	58.5	33.4	-3.6	3.5	0.6	17.9	-8.5	-4.5	11.7	14.4
Reserve money	52.7	16.0	19.1	55.6	91.5	146.1	82.4	45.1	35.0	-3.6	-1.0	-1.4	16.7	-7.8	-1.7	5.9	18.8
Contributions to reserve money growth																	
NFA	23.1	-18.1	-10.5	-41.5	2,190.4	141.3	-379.0	49.6	15.0	12.5	9.6	-9.9	7.5	-6.8	-0.4	1.0	26.0
NDA	29.7	34.1	29.6	245.8	143.8	743.0	140.0	-60.4	27.6	-77.1	-32.7	23.8	11.9	4.0	-3.1	11.6	-47.8
Reserve money multiplier																	
Broad money	3.5	4.4	4.9	4.5	5.3	5.1	3.6	3.2	2.8	2.6	2.9	3.0	2.7	2.8	2.9	3.0	2.7
Lev money	2.6	3.5	3.3	3.3	2.6	1.6	1.4	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.6	1.7	1.6

Sources: Bulgarian National Bank.

Table A38. Bulgaria: Liquidity Ratios and Capital Adequacy of Commercial Banks, 1997-99

Commercial Bank Groups		1997 Dec.	1998 Dec.	1999 March	1999 June	1999 Sep.
Group I 1/	Primary liquidity, % of deposits	...	...	...	17.8	11.2
	Secondary liquidity, % of deposits	...	...	...	37.2	31.1
	Capital base, billions of leva	...	...	...	636.4	645.3
	Total risk component, billions of leva	...	...	...	1175.1	1276.4
	Total capital adequacy, billions of leva	...	...	...	54.2	50.6
Group II 2/	Primary liquidity, % of deposits	...	...	...	17.6	13.7
	Secondary liquidity, % of deposits	...	...	...	53.1	44.7
	Capital base, billions of leva	...	...	...	129.9	161.6
	Total risk component, billions of leva	...	...	...	520.3	610.3
	Total capital adequacy, billions of leva	...	...	...	25.0	26.5
Group III 3/	Primary liquidity, % of deposits	...	...	...	10.5	11.2
	Secondary liquidity, % of deposits	...	...	...	34.6	30.7
	Capital base, billions of leva	...	...	...	95.4	105.7
	Total risk component, billions of leva	...	...	...	470.4	451.4
	Total capital adequacy, billions of leva	...	...	...	20.3	23.4
Group IV 4/	Primary liquidity, % of deposits	...	...	...	17.0	18.7
	Secondary liquidity, % of deposits	...	...	...	48.0	47.4
	Capital base, billions of leva	...	...	...	222.9	233.4
	Total risk component, billions of leva	...	...	...	434.8	415.4
	Total capital adequacy, billions of leva	...	...	...	51.3	56.2
Group V 5/	Primary liquidity, % of deposits	...	...	...	11.2	11.3
	Secondary liquidity, % of deposits	...	...	...	14.5	16.5
	Capital base, billions of leva	...	...	...	...	...
	Total risk component, billions of leva	...	...	...	...	...
	Total capital adequacy, billions of leva	...	...	...	...	...
Total for the banking system	Primary liquidity, % of deposits	22.4	17.1	21.3	16.2	12.4
	Secondary liquidity, % of deposits	57.2	57.4	60.8	39.8	34.3
	Capital base, billions of leva	580.8	1002.4	1109.0	1084.6	1146.1
	Total risk component, billions of leva	2162.0	2728.2	2665.4	2600.7	2753.6
	Total capital adequacy, billions of leva	26.9	36.7	41.6	41.7	41.6

Source: Bulgarian National Bank

1/ Group I includes the following banks: United Bulgarian Bank; DSK Bank; and Bulbank.

2/ Group II includes: Expressbank; Biochim; Hebros Commercial Bank; and Bulgarian Post Bank.

3/ Group III includes: Municipal Bank; First Investment Bank; Raiffeisenbank, Bulgaria; BNP-Dresdnerbank, Sofia; and Central Cooperative Bank.

4/ Group IV includes: Neftinvestbank; Bulgarian-American Credit Bank; Eurobank; Unionbank; Corporate Commercial Bank; Demirbank; Tokuda Credit Express Bank; Rossexim bank; First East International Bank; International Commercial Bank; Teximbank; Bulgaria-Invest; Balkan Universal Bank; Promotional Bank; BRI Bank; and International Bank for Trade and Development.

5/ Group V includes: Hypovereinsbank, Bulgaria, Sofia Branch; ING Bank, Sofia Branch; Xiosbank, Sofia Branch; National Bank of Greede, Sofia Branch; T.C. Ziraat Bank, Sofia Branch; and Ionian and Popular Bank of Greece, Sofia Branch.

Table A39. Bulgaria: Quality of Credit Portfolio of Commercial Banks, 1997-99

Commercial Bank Groups		1997 Dec.	1998 Dec.	1999 March	1999 June	1999 Sep.
		(In percent of loans)				
Group I 1/	Total (in billions of leva)	...	...	...	1955.2	2.2
	Standard (in percent)	...	...	...	94.4	93.8
	Watch (in percent)	...	...	...	2.4	2.1
	Substandard (in percent)	...	...	...	1.0	2.2
	Doubtful (in percent)	...	...	...	0.1	0.1
	Loss (in percent)	...	...	...	2.1	1.8
	Provisions (in percent)	...	...	...	5.9	5.6
Group II 2/	Total (in billions of leva)	...	...	...	985.3	1.2
	Standard (in percent)	...	...	...	61.7	66.1
	Watch (in percent)	...	...	...	6.3	5.4
	Substandard (in percent)	...	...	...	3.9	0.7
	Doubtful (in percent)	...	...	...	1.3	2.6
	Loss (in percent)	...	...	...	26.7	25.3
	Provisions (in percent)	...	...	...	27.2	23.6
Group III 3/	Total (in billions of leva)	...	...	...	688.0	0.7
	Standard (in percent)	...	...	...	89.5	89.2
	Watch (in percent)	...	...	...	7.2	6.4
	Substandard (in percent)	...	...	...	1.4	2.0
	Doubtful (in percent)	...	...	...	0.5	0.7
	Loss (in percent)	...	...	...	1.4	1.7
	Provisions (in percent)	...	...	...	5.4	5.2
Group IV 4/	Total (in billions of leva)	...	...	...	451.9	0.5
	Standard (in percent)	...	...	...	70.6	74.3
	Watch (in percent)	...	...	...	9.0	7.3
	Substandard (in percent)	...	...	...	10.4	8.5
	Doubtful (in percent)	...	...	...	4.5	5.0
	Loss (in percent)	...	...	...	5.5	5.0
	Provisions (in percent)	...	...	...	15.9	14.0
Group V 5/	Total (in billions of leva)	...	...	...	347.8	0.4
	Standard (in percent)	...	...	...	84.1	88.5
	Watch (in percent)	...	...	...	2.1	1.1
	Substandard (in percent)	...	...	...	13.9	10.4
	Doubtful (in percent)	...	...	...	0.0	0.0
	Loss (in percent)	...	...	...	0.0	0.0
	Provisions (in percent)	...	...	...	9.1	7.3
Total	Total (in billions of leva)	3806.0	5945.9	5903.0	4428.1	4.9
	Standard (in percent)	78.8	86.6	86.6	83.1	84.4
	Watch (in percent)	3.7	3.6	4.1	4.7	3.9
	Substandard (in percent)	2.7	1.9	2.2	3.7	3.1
	Doubtful (in percent)	2.0	0.6	0.7	0.9	1.2
	Loss (in percent)	12.9	7.3	6.5	7.7	7.5
	Provisions (in percent)	...	...	...	11.8	10.7

Source: Bulgarian National Bank

1/ Group I includes the following banks: United Bulgarian Bank; DSK Bank; and Bulbank.

2/ Group II includes: Expressbank; Biochim; Hebros Commercial Bank; and Bulgarian P

3/ Group III includes: Municipal Bank; First Investment Bank; Raiffeisenbank, Bulgaria; BNP-Dresdnerbank, Sofia; and Central Cooperative Bank.

4/ Group IV includes: Neftinvestbank; Bulgarian-American Credit Bank; Eurobank; Unionbank; Corporate Commercial Bank; Demirbank; Tokuda Credit Express Bank; Rossexim bank; First East International Bank; International Commercial Bank; Teximbank; Bulgaria-Invest; Balkan Universal Bank; Promotional Bank; BRI Bank; and International Bank for Trade and Development.

5/ Group V includes: Hypovereinsbank, Bulgaria, Sofia Branch; ING Bank, Sofia Branch; Xiosbank, Sofia Branch; National Bank of Greede, Sofia Branch; T.C. Ziraat Bank, Sofia Branch; and Ionian and Popular Bank of Greece, Sofia Branc

Table A40. Bulgaria: Consolidated Income Statement of the Banking System, 1999

	1999			
	March	June	Sep.	Dec.
	(in thousands of leva, cumulative)			
Interest Income	106,654	215,227	328,895	450,759
on Banks and Other Financial Institutions	28,093	46,971	72,840	103,705
on Loans and Advances to Non-Financial Institutions and other Clients	67,658	141,747	216,639	295,611
Income on Investment Securities	10,903	26,509	39,416	51,443
Interest Expense	35,365	62,572	96,684	129,761
on Deposits by Banks and Other Financial Institutions	7,070	9,859	14,003	18,101
on Deposits by Non-Financial Institutions and Other Clients	25,423	50,289	77,585	104,870
on Borrowings	2,872	2,424	5,096	6,790
Net Interest Income	71,289	152,655	232,211	320,998
Net Interest and Trading and Revaluation Income	105,963	215,320	324,699	434,989
Of which: Trading and Revaluation Profit/Loss	43,081	62,948	87,942	123,912
Less: Provisions for Credit Losses	8,408	283	-4,546	9,921
Operating Income/Loss Before Tax and Extraordinary Items	55,457	129,638	184,963	211,568
Other Non-Interest Income	36,026	97,850	140,166	170,836
Operating Income Before Expenses	141,989	313,171	464,865	605,825
Overhead Expenses	86,532	183,533	279,902	394,257
Net Profit/Loss	71,707	130,610	170,057	207,030
Revaluation Extraordinary Gain/Loss	50,575	59,320	49,338	74,744
Profit/Loss Before Taxation	106,032	188,958	234,301	286,312

Source: Bulgarian National Bank.

Table A41. Balance Sheet of the Deposit Money Banks, 1999

	1999			
	March	June	September	December
	(In thousands of leva)			
Assets				
Cash in vault and funds in current account with BNB	716,974	873,696	708,838	916,831
Due from Banks and OtherFinancial Institutions	2,409,058	2,255,153	2,689,696	2,649,764
Securities in Trading Portfolio	1,010,274	1,036,106	985,665	968,286
Securities in Investment Portfolio	558,369	556,090	594,809	649,819
Loans Extended to the Budget	165,096	121,385	4,211	3,518
Loans Extended to State Enterprises	324,391	254,455	274,183	292,296
Loans Extended to Private Enterprises	1,113,063	1,261,257	1,407,607	1,627,921
Loans Extended to Individuals and Households	467,550	485,849	499,532	495,285
Loans Extended to Non-financial Institutions and Other Clients	2,070,100	2,122,946	2,185,533	2,419,020
Earning Assets	6,047,802	5,970,296	6,455,703	6,686,889
Assets for Resale	19,040	23,991	24,428	24,140
Interest Receivable and Other Assets	315,883	282,418	258,567	204,107
Fixed Assets	330,366	333,295	338,321	353,544
Total Assets	7,430,065	7,483,696	7,785,857	8,185,511
Of Which Pledged Assets	262,231	278,487	249,249	263,405
Liabilities and Capital				
Deposits by Banks	377,900	372,573	379,732	453,665
Deposits by Other Financial Institutions	162,489	146,365	151,715	167,851
Deposits by Non-financial Institutions and Other Clients	4,808,419	4,883,544	5,207,840	5,490,645
Total Deposits	5,348,808	5,402,482	5,739,287	6,112,161
Short Term Attracted Funds	66,153	39,572	32,914	63,422
Interest Payable and Other Liabilities	700,839	748,139	645,503	555,808
Long-Term Attracted Funds	163,941	155,880	169,075	170,910
Subordinated Debt				
Total Liabilitites	6,279,740	6,346,073	6,586,779	6,902,301
Capital	808,132	776,770	833,080	894,582
Reserves	342,193	360,853	365,998	388,628
Capital and Reserves	1,150,325	1,137,623	1,199,078	1,283,210
Total Liabilities and Own Funds	7,430,065	7,483,696	7,785,857	8,185,511
Credit Substitudes	470,319	513,872	519,406	636,144
Derivatives	1,009,475	881,970	592,797	495,074
Off-Balance Sheet Liabilities	1,479,794	1,395,842	1,112,203	1,131,218

Source: Bulgarian National Bank.

Table A42. Bulgaria: Summary Balance of Payments, 1995-99 1/

	1995	1996	1997	1998	1999 2/ Jan.-Sep.
	(In millions of U.S. dollars)				
Current account balance	-77	21	446	-61	-392
Trade balance 3/	94	133	394	-381	-765
Exports 3/	4,913	4,691	4,814	4,193	2,839
Imports 3/	4,819	4,558	4,420	4,574	3,604
Services balance	-303	-282	-185	90	141
Receipts	1,523	1,533	1,542	2,094	1,617
Of which: Interest	150	143	158	307	170
Payments	1,825	1,815	1,727	2,004	1,476
Of which: Interest	582	480	440	530	384
Transfers, net	132	171	237	230	232
Capital account balance	418	-860	641	178	304
Foreign direct investment, net	98	137	507	537	466
Portfolio investment, net	-66	-129	133	-180	-189
Medium- and long-term financial capital, net	-153	-184	-206	100	40
Disbursements	68	190	164	582	289
Amortization	220	374	370	482	249
Short-term trade credits, net 4/	0	306	141	9	97
Other short-term capital, net 5/	349	990	-167	-44	-34
Errors and omissions, net	189	-1,981	234	-244	-76
Overall balance	341	-839	1,088	117	-88
Financing	-341	839	-1,088	-117	88
Change in BNB gross foreign assets (increase:-)	-235	753	-1,675	-521	-29
Obligations deferred/rescheduled	111	90	90	278	0
Change in arrears	29	105	103	-4	0
Use of Fund credit, net	-246	-108	394	130	117
Financing gap	0	0	0	0	0
Memorandum items:					
Total medium- and long-term external debt	9,958	9,388	9,322	9,739	...
Gross official reserves (including gold)	1546	793	2468	3,056	...
(in months of imports of GNFS)	3.1	1.6	5.3	6.1	...
(excluding gold, in months of imports of GNFS)	2.4	1.0	4.6	5.4	...
	(In percent of GDP)				
Current account balance	-0.6	0.2	4.4	-0.5	-3.2
Capital account balance	3.2	-8.8	6.3	1.5	2.5
Overall balance	2.6	-8.5	10.7	1.0	-0.7
Total medium- and long-term external debt	76	95	92	79	...
Total external debt service (including to IMF)	8.0	11.0	8.8	9.7	...

Sources: Data provided by the Bulgarian authorities; and staff estimates.

1/ Data for 1995-97 based on export and import transactions recorded at date goods cross the border. Data for 1998-99 based on export and import transactions recorded at date goods clear customs.

2/ Preliminary.

3/ Customs basis.

4/ Includes the value of repayments made by Russia in the form of gas provided to Bulgaria under the Jamburg agreement in 1996-97.

5/ Includes the discrepancy between settlements and customs data in the trade account, clearing account transactions, changes in net foreign assets of deposit money banks, other short-term capital flows, and errors and omissions.

Table A43. Bulgaria: Current Account, 1995-99 1/

	1995	1996	1997	1998	1999 2/ Jan-Sep
	(In millions of U.S. dollars)				
Current account balance	-77	21	446	-61	-392
Trade balance	94	133	394	-381	-765
Exports of goods, f.o.b.	4,913	4,691	4,814	4,193	2,839
Imports of goods, f.o.b.	4,819	4,558	4,420	4,574	3,604
Services balance	-303	-282	-185	90	141
Receipts	1,523	1,533	1,542	2,094	1,617
Payments	1,825	1,815	1,727	2,004	1,476
Of which:					
Transport, net	-61	-53	-51	-78	-77
Receipts	435	425	443	452	394
Payments	496	478	494	530	471
Travel, net	278	190	148	447	368
Receipts	473	389	369	966	766
Payments	195	199	222	519	398
Interest, net	-432	-337	-282	-223	-214
Receipts	150	143	158	307	170
Payments	582	480	440	530	384
Other (including income), net	-87	-82	1	-57	65
Receipts	465	577	572	369	287
Payments	552	658	572	426	222
Transfer income, net	132	171	237	230	232
Receipts	257	298	275	262	242
Payments	125	127	38	32	10
	(In percent of GDP)				
Memorandum items:					
Current account balance	-0.6	0.2	4.4	-0.5	-3.2
Trade balance	0.7	1.4	3.9	-3.1	-6.2
Services balance	-2.3	-2.9	-1.8	0.7	1.2
Net transfer income	1.0	1.7	2.3	1.9	1.9

Sources: Data provided by the Bulgarian authorities; and staff estimates.

1/ Data for 1995-97 based on export and import transactions recorded at date goods cross the border. Data for 1998-99 based on export and import transactions recorded at date goods clear customs.

2/ Preliminary data.

Table A44. Bulgaria: Trade Volumes and Prices, 1995-98

(Percentage changes in U.S. dollar indices, 1991=100)

	1995	1996	1997	1998
	(U.S. dollar indices, 1991 =100)			
Export value	147	137	140	122
Export price	114	114	107	97
Export volume	128	120	131	126
Import value	188	175	169	175
Import price	78	81	77	67
Import volume	239	216	219	263
Terms of trade	143	138	136	143
	(percentage changes in US dollar indices)			
Export value	25.6	-6.8	2.6	-12.9
Export price 1/	9.2	-0.4	-5.8	-9.3
Export volume	15.0	-6.4	9.0	-4.0
Import value	26.4	-6.9	-3.1	3.4
Import price 2/	9.3	3.0	-4.3	-13.8
Import volume	15.6	-9.6	1.3	20.0
Terms of trade	-0.1	-3.4	-1.6	5.2
Memorandum items:				
Exports of goods:				
Volume growth in Bulgaria's export markets 3/	12.0	6.2	8.5	3.0
Volume growth in Bulgaria's exports	15.0	-6.4	9.0	-4.0
Change in Bulgaria's market share	2.7	-11.9	0.5	-6.8
Imports of goods:				
Real GDP growth in Bulgaria	2.1	-10.9	-6.9	3.5
Volume growth in Bulgaria's imports	15.6	-9.6	1.3	20.0
Change in foreign suppliers' share of Bulgarian mark	13.2	1.4	8.8	15.9

Sources: Data provided by the Bulgarian authorities; IMF *World Economic Outlook*; and IMF staff estimates.

1/ Bulgarian export-weighted average change in non-fuel commodities prices, export unit values for manufactured goods of industrialized economies, and fuel commodities' price, all in U.S. dollar terms.

2/ Bulgarian import-weighted average change in non-fuel commodities prices, export unit values for manufactured goods of industrialized economies, and fuel commodities' prices,l all in U.S. dollar terms.

3/ Bulgarian export-weighted average change in partners' (all countries) real imports of goods (including oil) in U.S. dollar terms.

Table A45. Bulgaria: Exchange Rates, 1995-99

	Nominal exchange rates		Real effective exchange rates 2/	
	BGL:DM	BGL:US$	CPI-basis	ULC-basis
1995	0.0469	0.0672	100.0	100.0
1996	0.1174	0.1779	86.1	82.5
1997	0.9673	1.6810	105.1	84.5
1998	1.0000	1.7667	122.7	115.4
1999 3/	1.0000	0.8994	122.1	128.7
1995				
March	0.0469	0.0660	98.2	91.9
June	0.0472	0.0661	98.3	99.3
September	0.0465	0.0680	102.6	104.0
December	0.0488	0.0703	105.1	103.9
1996				
March	0.0527	0.0779	100.2	120.2
June	0.0937	0.1431	76.1	85.2
September	0.1492	0.2246	80.9	84.8
December	0.2972	0.4612	64.3	54.3
1997				
January	0.4355	0.6986	62.4	42.5
February	1.4255	2.3872	64.4	34.6
March	0.9783	1.6601	104.0	85.4
April	0.9025	1.5441	111.0	91.0
May	0.8998	1.5326	117.1	87.5
June	0.9659	1.6684	108.8	100.4
July	1.0000	1.7881	107.4	77.9
August	1.0000	1.8442	111.9	84.4
September	1.0000	1.7919	117.2	102.4
October	1.0000	1.7512	118.5	99.4
November	1.0000	1.7311	119.0	101.0
December	1.0000	1.7748	119.0	108.3
1998				
January	1.0000	1.8157	120.1	96.4
February	1.0000	1.8149	121.8	96.8
March	1.0000	1.8267	122.0	113.1
April	1.0000	1.8182	122.8	112.9
May	1.0000	1.7749	124.4	113.1
June	1.0000	1.7906	120.9	120.1
July	1.0000	1.7992	119.6	110.0
August	1.0000	1.7890	118.6	118.0
September	1.0000	1.7459	125.7	143.5
October	1.0000	1.6475	127.9	129.7
November	1.0000	1.7026	125.1	107.5
December	1.0000	1.6751	124.2	124.3
1999				
January	1.0000	1.6846	125.6	122.8
February	1.0000	1.7453	123.8	115.4
March	1.0000	1.7973	121.6	134.6
April	1.0000	1.8280	120.4	129.2
May	1.0000	1.8414	118.7	139.6
June	1.0000	1.8847	116.7	126.9
July	1.0000	1.8899	120.3	127.5
August	1.0000	1.8447	122.9	122.9
September	1.0000	1.8631	123.6	139.5
October	1.0000	1.8270	125.0	
November	1.0000	1.8923	123.6	
December	1.0000	1.9356	123.3	

Sources: Data provided by the Bulgarian authorities; and IMF staff estimates.

1/ Period average data.

2/ Indices, 1995 = 100.

3/ 1998 averages through November and October, respectively, for the real effective exchange rate indices on a CPI-basis and ULC-basis.

Table A46. Bulgaria: Commodity Composition of Exports, 1995-99 1/

	1995	1996	1997	1998	1999 Jan.-Sep. 2/
	(In percent of total)				
Exports, f.o.b.	**100**	**100**	**100**	**100**	**100**
Metal products	19.0	17.9	21.4	19.5	16.5
Of which: Iron and steel products (72,73)	11.7	9.1	11.6	11.1	7.4
Copper products (74)	4.7	5.4	5.9	4.9	5.3
Zinc products (79)	1.0	1.4	1.7	1.6	1.7
Chemical products	18.1	19.7	18.4	14.8	12.8
Of which: Organic and inorganic chemicals (28, 29)	5.6	5.5	6.1	4.9	3.9
Fertilizers (31)	4.9	5.7	3.6	1.9	1.0
Plastic products (39)	2.6	2.5	2.5	2.3	2.4
Pharmaceutical products (30)	1.7	2.1	2.5	1.9	1.4
Essential oils, perfumes, toiletries (33)	1.5	2.0	1.9	2.0	2.1
Rubber products (40)	1.0	1.1	0.9	1.1	1.1
Textiles	12.7	15.0	16.4	20.2	24.9
Of which: Clothing and accessories (61, 62)	4.8	5.9	7.3	10.6	15.1
Footwear, etc (64)	1.9	2.3	2.5	2.7	3.1
Machinery and equipment	14.4	14.9	14.4	15.8	15.5
Of which: Nuclear reactors, boilers, machinery, etc (84)	5.5	5.9	5.3	6.2	6.9
Electrical machines, equipment, etc (85)	4.0	3.8	3.5	3.2	3.1
Ships and boats (89)	1.4	1.7	1.6	1.9	0.1
Optical instruments and appliances (90)	0.3	0.4	0.3	0.5	1.4
Animal and vegetable products	22.3	18.8	14.1	16.2	15.0
Of which: Tobacco products (24)	6.1	5.4	3.4	2.6	2.5
Beverages, etc (22)	3.9	3.8	3.0	3.4	2.4
Cereals (10)	2.5	0.1	0.3	2.1	2.2
Fruit and vegetables (07, 08)	1.0	1.1	0.8	1.4	1.2
Mineral products	9.0	9.2	10.6	8.3	9.8
Of which: Mineral fuels, oils and products, etc (27)	6.8	6.6	7.7	6.3	7.3
Wood, paper, earthenware, glass, etc	4.5	4.6	4.8	5.2	5.5
Of which: Wood products (44)	1.3	1.6	1.6	2.0	2.6

Source: Data provided by the Bulgarian authorities.

1/ Exports recorded according to the date at which goods cross the border.
2/ Preliminary data.

Table A47. Bulgaria: Direction of Trade, 1995-99 1/

(In percent of total)

	1995		1996		1997		1998		1997 Jan-Sep		1998 Jan-Sep		1999 Jan-Sep 2/	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
Developed countries	52.1	46.5	53.0	42.9	58.9	47.4	64.0	56.0	58.9	46.7	63.7	55.6	67.6	59.7
Of which:														
Austria	0.9	2.9	1.1	2.5	1.1	2.5	1.7	2.8	1.0	2.6	1.5	2.9	1.6	3.3
Belgium	1.6	1.4	1.5	1.2	1.6	1.2	3.6	1.8	1.6	1.3	3.7	1.8	5.2	1.8
France	3.5	3.0	2.7	3.2	2.8	3.3	3.4	4.5	2.7	3.2	3.3	4.5	4.8	5.3
Germany	9.2	13.2	9.4	11.6	9.6	11.9	10.6	13.9	9.1	11.6	10.4	13.9	10.3	15.1
Greece	6.5	3.6	7.1	3.7	8.3	4.1	8.8	5.9	8.1	3.9	9.3	5.8	9.0	6.0
Italy	8.6	6.1	10.4	6.3	11.9	7.3	13.1	7.7	12.2	7.2	13.2	7.6	14.0	8.4
Japan	0.4	0.8	0.5	0.6	0.7	0.7	0.8	0.8	0.8	0.8	0.9	0.8	0.6	1.3
Netherlands	2.0	2.1	1.7	1.8	1.5	1.9	1.9	2.1	1.6	1.9	1.9	2.1	2.1	1.9
Spain	2.7	0.5	2.4	0.5	2.7	0.5	2.9	1.1	2.9	0.5	3.2	1.0	2.4	1.3
Turkey	7.6	1.7	8.0	1.6	9.1	2.0	8.0	2.6	9.3	2.0	7.5	2.2	7.1	3.0
United States	3.3	2.1	2.4	2.5	2.7	3.8	2.6	4.0	2.4	3.8	2.5	4.2	3.7	2.9
United Kingdom	3.0	2.7	3.0	2.0	2.7	2.6	2.6	2.4	2.9	2.7	2.6	2.4	2.5	2.5
Developing countries	47.9	53.5	47.0	57.1	41.1	52.6	36.0	44.0	41.1	53.3	36.3	44.4	32.4	40.3
Of which:														
Czech Republic	0.4	1.3	0.5	1.3	0.4	1.3	0.4	1.9	0.4	1.2	0.4	1.8	0.4	1.8
Hungary	0.5	0.7	0.5	0.6	0.5	0.9	0.8	0.8	0.4	1.0	0.8	0.7	0.6	0.9
Macedonia	6.2	1.3	2.5	0.6	1.7	0.5	1.8	0.7	1.5	0.5	1.8	0.6	2.6	0.5
Poland	0.5	0.6	0.6	0.7	0.6	1.2	1.3	0.9	0.5	1.2	1.5	0.8	0.7	1.2
Romania	1.9	1.0	1.5	1.4	1.3	0.9	1.2	1.2	1.1	1.0	1.3	1.1	1.2	1.2
Russia	10.4	30.1	9.6	33.8	7.8	28.4	5.3	20.0	7.9	28.6	5.8	20.8	5.2	20.2
Serbia/Montenegro	0.8	0.0	4.2	0.8	2.1	0.7	1.8	0.7	1.9	0.6	2.0	0.7	2.9	0.3
Ukraine	3.8	2.7	3.3	2.1	2.9	3.5	2.6	3.5	2.9	3.6	2.8	3.7	1.7	2.4
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**
Memorandum items:														
European Union	39.3	38.3	40.2	35.2	43.9	38.0	50.5	45.4	43.7	37.2	50.9	45.1	53.5	49.5
CEFTA members 3/	3.8	4.2	3.5	4.5	3.3	5.0	4.9	5.6	2.9	5.0	4.9	5.3	4.0	6.0

Source: Data provided by the Bulgarian authorities.

1/ Imports and exports recorded according to the date at which goods cross the border.
2/ Preliminary data.
3/ Includes Czech Republic, Hungary, Poland, Romania, Slovak Republic, and Slovenia.

Table A48. Bulgaria: Commodity Composition of Imports, 1995-99 1/

	1995	1996	1997	1998	1998 Jan.-Sep.	1999 Jan.-Sep. 2/	Percentage Change 1995-99	Percentage Change 1997-99
							(In percent)	
Imports, c.i.f.	**100**	**100**	**100**	**100**	**100**	**100**	...	...
Metal products	5.1	5.0	5.8	6.1	6.2	5.4	0.3	-0.5
Of which: Iron and steel products (72,73)	2.7	2.8	3.4	3.8	3.8	3.1	0.5	-0.3
Aluminium products (76)	1.6	1.2	1.3	1.2	1.2	0.5	-1.0	-0.7
Chemical products	13.8	11.9	11.9	14.6	15.1	12.3	-1.5	0.4
Of which: Organic and inorganic chemicals (28, 29)	5.0	3.4	3.7	4.2	4.6	1.6	-3.5	-2.1
Plastic products (39)	2.3	2.1	2.1	2.6	2.5	2.9	0.6	0.8
Pharmaceutical products (30)	1.5	1.5	1.6	2.0	2.0	1.9	0.4	0.3
Miscellaneous chemical products (38)	1.5	1.7	1.4	1.7	1.8	1.6	0.0	0.2
Rubber products (40)	1.0	0.9	1.0	1.3	1.2	1.2	0.3	0.2
Textiles, leather, clothing, footwear, etc	11.5	11.8	14.5	15.3	15.0	14.7	3.2	0.3
Of which: Clothing and accessories (61, 62)	1.1	1.3	1.9	2.7	2.5	2.9	1.8	1.0
Synthetic and artificial fibers (54, 55)	3.0	2.8	3.3	3.4	3.3	3.3	0.3	0.0
Cotton (52)	1.9	1.8	2.4	2.2	2.1	1.9	0.0	-0.6
Wool, etc (51)	0.7	0.9	1.2	1.2	1.3	1.2	0.5	0.0
Machines, transport facilities, appliances, and tools	22.2	19.6	18.3	23.5	22.7	31.9	9.7	13.6
Of which: Nuclear reactors, boilers, machinery, etc (84)	9.7	8.4	9.2	9.9	9.8	13.7	4.0	4.4
Electrical machines, equipment, etc (85)	4.8	3.9	4.0	5.3	5.4	7.0	2.2	3.0
Automobile transport (87)	4.6	3.1	2.6	4.9	4.3	8.3	3.6	5.7
Optical instruments and appliances (90)	2.1	1.8	1.6	2.0	1.9	1.9	-0.3	0.3
Animal and vegetable products, food, drinks, tobacco, etc	6.6	8.1	8.2	7.6	7.5	6.5	-0.1	-1.7
Of which: Sugar products (17)	2.1	2.1	2.1	1.2	1.3	1.2	-0.9	-0.8
Mineral products and fuels	35.8	39.4	37.3	28.4	29.1	24.8	-10.9	-12.5
Of which: Mineral fuels, oils and products, etc (27)	30.1	34.7	31.2	21.7	22.0	20.4	-9.8	-10.8
Ores, slag, and ash (26)	2.4	2.3	3.3	4.0	4.4	2.7	0.3	-0.6
Wood, paper, earthenware, and glass products	5.0	4.3	4.0	4.5	4.4	4.3	-0.7	0.3
Of which: Paper and cardboard products (48)	3.0	2.3	2.0	2.5	2.4	2.4	-0.6	0.3

Source: Data provided by the Bulgarian authorities.

1/ Imports recorded according to the date at which goods cross the border.
2/ Preliminary data.

Table A49. Bulgaria: Economic Classification of Imports, 1995-99 1/

	1995	1996	1997	1998	1998 Jan.-Sep.	1999 Jan-Sep. 2/	Percentage Change 1995-99	Percentage Change 1997-99
			(In percent of total)				(In percent)	
Imports, c.i.f.	**100**	**100**	**100**	**100**	**100**	**100**	...	...
Consumption goods	11.8	9.7	10.4	14.6	13.8	17.1	5.3	6.7
Of which:								
Food, beverages, and tobacco	3.2	2.2	2.8	3.9	3.7	3	-0.2	0.2
Clothing and footwear	1.3	1.5	2.1	3.1	2.9	3.3	2.0	1.2
Furniture and household appliances	2.7	1.7	1.4	1.8	1.7	2.6	-0.1	1.2
Medicines and cosmetics	1.9	2.0	1.9	2.7	2.6	2.9	1.0	1.0
Automobiles	1.0	0.7	0.6	1.0	0.9	2.7	1.7	2.1
Capital goods	19.6	18.0	17.4	21.6	21.1	27.7	8.1	10.3
Of which:								
Machines and equipment	6.5	6.1	7.2	7.8	7.7	11.4	4.9	4.2
Electrical machines	2.7	2.2	2.4	3.3	3.4	4.2	1.5	1.8
Vehicles	2.7	2.1	1.8	3.5	3.1	5.1	2.4	3.3
Spare parts and equipment	3.7	3.1	2.9	3.6	3.6	3.7	0.0	0.8
Fuels	28.5	35.0	31.9	23.3	23.5	21.2	-7.3	-10.7
Of which:								
Crude oil	16.0	18.1	15.6	10.1	10.0	12.8	-3.2	-2.8
Coal	1.3	3.6	3.4	3.2	3.5	1.4	0.1	-2.0
Natural gas	8.5	10.8	9.8	6.5	6.8	4.7	-3.8	-5.1
Other intermediate goods	40.1	37.3	40.2	40.4	41.6	34	-6.1	-6.2
Of which:								
Ores	2.2	2.3	3.2	4.0	4.4	2.7	0.5	-0.5
Iron and steel	2.5	1.9	2.2	2.4	2.4	1.6	-0.9	-0.6
Textiles	8.0	8.2	9.9	10.0	9.9	9.2	1.2	-0.7
Chemicals	6.5	5.1	5.1	5.7	6.3	3.1	-3.4	-2.0
Plastics and rubber	3.6	3.3	3.2	3.8	3.7	4	0.4	0.8
Wood products	3.7	2.7	2.4	2.8	2.7	2.5	-1.2	0.1
Cereals and others intermediate food products	3.8	4.8	4.9	2.4	2.6	2.4	-1.4	-2.5

Source: Data provided by the Bulgarian authorities.

1/ Imports recorded according to the date at which goods cross the border.

2/ Preliminary data.

Table A50. Bulgaria: Tourism Indicators, 1995-99

	1995	1996	1997	1998 1/	1997 Jan.-Sep.	1998 Jan.-Sep. 1/	1999 Jan-Sep.1/
				(In thousands)			
Total foreign visitors 2/	**3,466**	**2,795**	**2,980**	**2,667**	**2,367**	**2,174**	**1,874**
Of which, visitors from:				(In percent of total)			
BRO	14.8	27.7	26.8	...	...	...	...
Former SFRY	53.8	39.1	21.8	...	...	...	...
Germany	5.6	4.2	7.3	7.3	7.4	8.4	11.2
Greece	4.4	3.3	5.7	11.8	5.2	10.8	12.6
Macedonia	...	...	...	18.9	10.1	16.7	26.9
Romania	3.5	3.4	4.4	7.0	4.6	6.6	6.6
Russia	...	...	...	7.0	12.8	8.2	3.6
Scandinavian countries	1.3	1.3	2.3	2.1	2.4	2.4	3.4
United Kingdom	1.4	1.4	2.6	3.0	2.7	3.3	3.0
Other countries	15.1	19.5	29.1	29.5	54.8	30.3	22.4
				(Annual percent change)			
Total foreign visitors 2/	**-11.0**	**-19.4**	**6.6**	**-10.5**	**...**	**-8.2**	**-13.8**
Of which, visitors from:							
BRO	-46.7	50.8	3.0	...	...	...	...
Former SFRY	19.0	-41.4	-40.5	...	...	...	...
Germany	30.9	-39.5	85.6	-11.4	...	3.4	15.4
Greece	-39.1	-40.3	83.7	85.8	...	91.1	0.9
Macedonia	...	...	...	...	...	52.5	39.1
Romania	-44.2	-20.0	37.5	42.4	...	33.3	-13.9
Russia	...	...	...	...	...	-41.4	-62.4
Scandinavian countries	31.4	-19.6	86.5	-17.4	...	-8.8	21.2
United Kingdom	-15.8	-18.8	97.4	2.6	...	12.5	-22.2
Memorandum items:							
Travel receipts 3/	473	389	369	966	272	844	766
Average number of nights per visit	3.4	3.8	3.9	3.9	3.9	3.9	3.9
Average expenditure per visitor 4/	...	161	168	345	169	360	387

Source: Data provided by the Bulgarian authorities.

1/ These numbers are based on a revised methdology for estimating tourism receipts.
2/ Includes visitors for both tourism and business purposes, and excludes transit visitors.
3/ Balance of payments data, in millions of U.S. dollars
4/ Per visit, in U.S. dollars, excluding airfares, as estimated by the Ministry of Trade and Tourism.

Table A51. Bulgaria: Capital Account, 1995-99

(In millions of U.S. dollars)

	1995	1996	1997	1998	1999 1/ Jan.-Sep.
Capital account balance	418	-860	641	178	304
Foreign direct investment, net	98	137	507	537	466
Portfolio investment, net	-66	-129	133	-180	-189
Medium- and long-term financial capital	-153	-184	-206	100	40
Disbursements	68	190	164	582	289
Official project finance	64	73	117	130	156
Official policy-based lending (excluding IMF)	0	81	40	435	133
World Bank	0	30	40	149	...
EU	0	51	0	283	...
G-24 (including JEXIM)	0	0	0	3	...
Private disbursements	3	37	6	17	...
Amortization	220	374	370	482	249
Official creditors	135	105	241	386	...
Former CMEA creditors	53	6	0	73	...
World Bank, EIB, EBRD	0	14	26	43	...
Paris Club	82	76	52	98	...
EU	0	0	154	162	...
G-24 (incl. JEXIM)	0	9	8	11	...
Private creditors	85	270	129	96	...
London Club (Brady bonds)	0	0	0	0	...
Privately placed (Japan) bonds	25	197	51	53	...
Private debtors	60	73	78	44	...
Short-term trade credits	0	306	141	9	97
Other short-term capital	349	990	-167	-44	-34
Errors and omissions, net	189	-1,981	234	-244	-76
		(In percent of GDP)			
Memorandum items:					
Capital account balance	3.2	-8.8	6.3	1.5	2.5
Foreign direct investment, net	0.8	1.4	5.0	4.4	3.8
Portfolio investment, net	-0.5	-1.3	1.3	-1.5	-1.5
Disbursements	0.5	1.9	1.6	4.8	2.4
Amortization (excl. IMF)	1.7	3.8	3.6	3.9	2.0
Short-term trade credits	0.0	3.1	1.4	0.1	0.8
Other short-term capital	2.7	10.1	-1.6	-0.4	-0.3
Errors and omissions, net	1.4	-20.2	2.3	-2.0	-0.6

Sources: Data provided by the Bulgarian authorities; and staff estimates.

1/ Preliminary data.

Table A52. Bulgaria: Direct and Portfolio Investment, 1995-99

(In millions of U.S. dollars)

	1995	1996	1997	1998	1999 Jan.-Sep.
Inward direct investment 1/	**90**	**109**	**505**	**537**	**465**
Privatization purchases	63	36	340	214	123
Direct (non-privatization) purchases	28	73	152	290	199
Reinvested earnings	...	...	0	50	-20
Other changes in ownership by non-residents	...	...	13	-17	64
Inward portfolio investment	**-75**	**-122**	**146**	**-112**	**10**
Equity securities	...	2	52	19	3
Debt securities	-75	-124	94	-131	6
Brady bonds	...	...	-21	21	-4
Bulbank bonds	...	...	-51	-53	2
Government securities	...	...	58	-48	0
Zunk bonds	...	...	109	-81	-2
Other portfolio investment by non-residents	...	...	...	30	11
Memorandum items:					
Inward direct investment	0.7	1.1	5.0	4.4	...
Inward portfolio investment	-0.6	-1.2	1.4	-0.9	...

Source: Data provided by the Bulgarian authorities.

1/ Measured on a balance of payments basis.

Table A53. Bulgaria: Foreign Direct Investment by Sector and Country of Origin, 1995-99 1/

(In millions of U.S. dollars)

	1995	1996	1997	1998	1999 2/ (Jan-Sep)
Foreign direct investment by sector:					
Industry	95	172	458	311	187
Trade	20	32	46	177	204
Finance	32	15	64	72	35
Tourism	10	23	6	18	13
Telecommunications	0	1	4	23	7
Transportation	1	5	3	6	12
Construction	1	1	6	6	22
Agriculture	0	1	5	0	2
Other sectors	3	5	44	6	36
Total	**163**	**256**	**636**	**620**	**518**
Foreign direct investment by country of origin:					
Belgium	10	1	264	31	1
Germany	16	53	31	56	119
United States	16	21	47	39	22
Greece	30	15	16	3	5
Netherlands	1	46	11	41	11
Cyprus	1	8	21	109	115
United Kingdom	14	7	16	59	49
Switzerland	8	23	31	7	6
Spain	0	0	50	57	2
Korea	0	22	23	2	3
Luxembourg	14	7	10	24	5
France	5	7	1	3	29
Austria	1	12	12	47	60
Turkey	0	0	12	23	15
Other countries	51	32	311	111	54
Total	**163**	**256**	**636**	**620**	**494**
Memorandum items:					
Foreign direct investment inflow (BoP basis) 3/	90	109	505	537	465
(In percent of GDP)	0.7	1.1	5.0	4.4	3.8
Foreign direct investment stock (BoP basis) 3/ 4/	332	441	946	1,483	1,949
(In percent of GDP)	2.5	4.5	9.3	12.1	15.9

Sources: Data provided by the Bulgarian authorities; and staff estimates.

1/ As measured by the Bulgarian Foreign Investment Agency on the basis of contracted amounts and using nominal values for any amounts to be paid in the form of securities such as Zunk bonds.

2/ Preliminary estimates.

3/ As measured in the balance of payments on the basis of amounts remitted and using market values for any amounts paid in the form of securities such as Zunk bonds.

4/ Stock calculated from 1991.

Table A54. Bulgaria: External Debt Stock, 1995-99 1/

	1995	1996	1997	1998	1999
	(In millions of U.S. dollars)				
Total external debt	10,147	9,514	9,733	10,021	9,792
Of which: Total public external debt 2/	9,006	8,836	9,131	9,294	9,021
Medium- and long-term debt 3/	9,958	9,388	9,322	9,739	9,407
Official creditors	4,001	3,837	3,962	4,272	4,080
IMF	717	586	942	1,115	1,249
World Bank	411	456	540	712	892
Former CMEA institutions	765	747	775	403	0
EIB and EBRD	69	202	252	315	342
EU	461	496	286	422	402
Paris Club	1,238	1,035	878	1,045	815
Paris Club I	615	537	475	442	298
Paris Club II	195	172	154	166	140
Paris Club III	224	207	185	406	372
Non-rescheduled debt	203	119	64	32	5
G-24 (incl. JEXIM)	190	170	152	151	190
Former GDR 4/	70	64	56	0	0
Poland	81	82	80	74	64
Other	0	0	0	36	127
Private creditors	5,957	5,551	5,360	5,468	5,327
London Club 5/	5,005	4,984	4,924	4,977	4,977
Other private bond-holders	410	147	81	35	0
Russian commercial banks	0	0	0	0	0
Debt of Bulgarian commercial banks	474	340	270	298	292
Other private medium- and long-term debt	68	79	85	158	58
Short-term debt	189	126	411	282	386
Non-resident deposits with commercial banks	168	83	85	91	123
Non-resident holdings of government securities	0	15	245	81	89
Other private short-term debt	21	28	81	109	174
Memorandum items:	(In percent of GDP)				
Total external debt	77	97	96	82	80
Total public external debt	69	90	90	76	74
Medium- and long-term debt	76	95	92	79	77
Public medium- and long-term debt	69	90	88	75	73
Medium- and long-term debt to official creditors	31	39	39	35	33
Medium- and long-term debt to private creditors	45	56	53	45	43
Short-term debt	1	1	4	2	3

Sources: Data provided by the Bulgarian authorities; and staff estimates.

1/ Valued at end-period exchange rates.
2/ Public medium- and long-term debt plus non-resident holdings of government securities.
3/ Including principal and interest arrears.
4/ Included in Paris Club III from April 1998.
5/ In the form of Brady bonds from 1994.

Table A55. Bulgaria: External Debt Service, 1995-99 1/

	1995	1996	1997	1998	1999 Est.
			(In millions of U.S. dollars)		
Total debt service	1,049	1,079	897	1,194	899
Interest	582	480	440	530	500
Official creditors	242	179	158	240	221
IMF	50	30	31	45	44
World Bank, EIB, EBRD	30	37	41	51	57
Former CMEA creditors	27	0	0	65	20
EU	0	22	18	12	12
Paris Club	135	81	61	60	52
G-24 (incl. JEXIM)	0	9	7	7	8
JEXIM	0	4	3	3	4
Other G24	0	5	4	5	4
Private creditors	341	301	282	290	279
London Club	273	262	267	267	259
Privately placed bonds	28	26	8	14	2
Private debtors	40	13	8	9	18
Bulgarian commercial banks	33	12	3	1	1
Other private debtors	7	1	5	7	17
Amortization 2/	467	599	458	665	399
Official creditors	381	329	328	568	366
IMF	246	225	88	183	124
World Bank, EIB, EBRD	0	14	26	43	54
Former CMEA creditors	53	6	0	73	0
EU	0	0	154	162	0
Paris Club	82	76	52	98	164
G-24 (incl. JEXIM)	0	9	8	11	25
JEXIM	0	9	8	7	9
Other G24	0	0	0	3	16
Private creditors	85	270	129	96	33
London Club	0	0	0	0	0
Privately placed bonds	25	197	51	53	34
Private debtors	60	73	78	44	0
Bulgarian commercial banks	53	31	19	0	0
Other private debtors	7	42	59	43	0
Memorandum items:			(In percent of GDP)		
Total debt service	8.0	11.0	8.8	9.7	7.3
Interest	4.4	4.9	4.3	4.3	4.1
Amortization	3.6	6.1	4.5	5.4	3.3
			(In percent of exports of goods and nonfactor services)		
Total debt service	15.5	17.1	14.2	20.0	15.7
Interest	8.6	7.6	6.9	8.9	8.7
Amortization	6.9	9.5	7.2	11.1	7.0

Sources: Data provided by the Bulgarian authorities; and staff estimates.

1/ On an accrual basis.
2/ Including repurchases to the IMF.

Table A56. Bulgaria: Currency Composition of External Debt, 1996-99 1/

(In percent of medium- and long-term debt; end of period)

	1996	1997	1998	1999
Total	**100.0**	**100.0**	**100.0**	**100.0**
U.S. dollars	81.7	71.6	70.4	65.5
Deutsche marks	1.2	4.8	7.0	5.7
ECU	6.8	4.2	4.0	8.3
SDRs	6.8	10.8	10.8	13.8
Japanese yen	2.6	4.8	3.9	4.1
Austrian schillings	0.6	1.6	1.5	1.1
Swiss francs	0.0	1.1	1.0	0.6
French francs	0.0	0.5	0.5	0.3
Pounds sterling	0.0	0.3	0.2	0.2
Euro	...	...	...	...
Other currencies	0.2	0.4	0.7	0.4

Source: Data provided by the Bulgarian authorities.

Table A57. Bulgaria: Clearing Account Balances with Former CMEA Partners, 1995-99 1/

(In millions of transferable rubles)

	1995	1996	1997	1998	1999
Total	**-37.1**	**-5.5**	**-495.6**	**67.4**	**67.4**
Poland	-125.1	-119.3	-18.2	0.0	0.0
Hungary	-85.9	-84.9	-37.8	0.0	0.0
Former CSFR	0.0	0.0	0.0	0.0	0.0
GDR	-531.9	-507.1	-507.1	0.0	0.0
Romania	-22.0	-22.0	-22.0	-22.0	-22.0
Cuba	91.8	91.8	91.8	91.8	91.8
Mongolia	-2.4	-2.4	-2.4	-2.4	-2.4
BRO 2/	638.4	638.4	0.0	0.0	0.0

Source: Data provided by the Bulgarian authorities.

1/ End of period. A minus sign indicates a Bulgarian liability.

2/ Baltics, Russia, and other countries of the former Soviet Union.

Table A58. Bulgaria: Convertible Currency Position with Developing Countries 1995–99 1/

(In millions of U.S. dollars)

	Claims of Bulgaria					Claims on Bulgaria					Balance 2/				
	1995	1996	1997	1998	1999	1995	1996	1997	1998	1999	1995	1996	1997	1998	1999
Afghanistan	43.7	45.3	42.4	43.1	44.1	0.1	0.1	0.1	0.1	0.1	43.6	45.2	42.3	43.0	44.0
Algeria	39.5	34.5	33.4	34.0	32.2	0.0	0.0	0.0	0.0	0.0	39.5	34.5	33.4	34.0	32.2
Angola	86.1	88.3	89.6	92.7	94.8	0.0	0.0	0.0	0.0	0.0	86.1	88.3	89.6	92.7	94.8
Bangladesh	0.7	0.3	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.7	0.3	0.3	0.3	0.3
Congo	1.3	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3
Egypt	0.3	0.3	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.3	0.3
Ethiopia	55.5	55.6	55.8	55.9	56.1	0.6	0.6	0.6	0.6	0.6	54.9	55.0	55.2	55.3	55.5
Ghana	0.0	0.0	0.0	0.0	0.0	8.6	8.6	8.6	8.6	8.6	-8.6	-8.6	(8.6)	(8.6)	(8.6)
Guinea	9.6	9.9	10.1	10.4	10.6	0.0	0.0	0.0	0.0	0.0	9.6	9.9	10.1	10.4	10.6
Guyana	0.3	0.9	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.3	0.9	1.0	1.0	1.0
India	0.2	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.2	0.1
Indonesia	0.5	0.4	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.4	0.3	0.1	0.0
Iran	0.9	0.6	0.6	0.6	0.7	0.0	0.0	0.0	0.0	0.0	0.9	0.6	0.6	0.6	0.7
Iraq	1,327.9	1,358.1	1,389.0	1,419.1	1,447.2	0.0	0.0	0.0	0.0	0.0	1,327.9	1,358.1	1,389.0	1,419.1	1,447.2
Libya	50.5	51.1	51.5	52.1	52.6	0.0	0.0	0.0	0.0	0.0	50.5	51.1	51.5	52.1	52.6
Nicaragua	226.4	228.4	230.2	232.3	237.9	0.0	0.0	0.0	0.0	0.0	226.4	228.4	230.2	232.3	237.9
Nigeria	58.9	38.8	38.8	38.8	35.6	0.0	0.0	0.0	0.0	0.0	58.9	38.8	38.8	38.8	35.6
Mozambique	30.1	33.3	32.0	33.6	34.4	0.0	0.0	0.0	0.0	0.0	30.1	33.3	32.0	33.6	34.4
Pakistan	0.0	0.0	0.1	0.1	0.0	0.3	0.3	0.0	0.0	0.0	-0.3	-0.3	0.1	0.1	0.0
Peru	0.3	0.3	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.3	0.3
Somalia	7.5	7.7	7.7	7.9	8.0	0.0	0.0	0.0	0.0	0.0	7.5	7.7	7.7	7.9	8.0
Syria	78.2	78.4	78.6	78.9	82.6	0.0	0.0	0.0	0.0	0.0	78.2	78.4	78.6	78.9	82.6
Tanzania	26.8	22.3	25.5	26.5	27.3	0.3	0.3	0.0	0.3	0.3	26.5	22.0	25.5	26.2	27.0
Tunisia	0.2	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.2	0.1
Yemen	85.0	86.8	93.0	94.4	95.4	0.0	0.0	0.0	0.0	0.0	85.0	86.8	93.0	94.4	95.4
Zambia	4.3	4.5	5.2	5.5	5.7	0.0	0.0	0.0	0.0	0.0	4.3	4.5	5.2	5.5	5.7
Total	**2,134.8**	**2,147.6**	**2,187.4**	**2,229.7**	**2,268.7**	**9.9**	**9.9**	**9.6**	**9.6**	**9.6**	**2,124.9**	**2,137.6**	**2,177.8**	**2,220.1**	**2,259.1**

Source: Data provided by the Bulgarian authorities.

1/ Government credits and clearing and barter arrangements; end of period.

2/ A negative sign indicates a net debtor position of Bulgaria.

Table A59. Bulgaria: Trade Arrangements

(As at January 1, 2000)

A. Multilateral Trade Arrangements

EU

Agreement on the reciprocal establishment of tariff quotas for certain wines (November 1993)
Association (Europe) Agreement (February 1995)

EFTA (July 1993)

WTO (December 1996)

Annex 1A: Multilateral Agreements on Trade in Goods
Annex 1B: General Agreement on Trade in Services
Annex 1C: Agreement on Trade-Related Aspects of Intellectual Property Rights
Annex 2: Understanding on Rules and Procedures Governing the Settlement of Disputes
Annex 3: Trade Policy Review Mechanism
Annex 4: Agreement on Trade in Civil Aircraft

CEFTA (January 1999)

B. Bilateral Trade Agreements

Free Trade Agreements

Turkey (January 1999)
Macedonia (January 2000)

Bilateral agreements that provide for MFN treatment 1/

Albania (August 1994)
Algeria (January 1978)
Angola (1976)
Argentina (May 1971)
Armenia (December 1998)
Australia (December 1974)
Azerbaijan (February 1996)
Bangladesh (February 1974)
Belarus (April 1996)
Benin (1978)
Bolivia (June 1971)
Brazil (September 1993)
Canada (1990)
Chile (November 1968)
People's Republic of China (October 1990)
Democratic Republic of Congo (September 1988)
Republic of Congo (November 1970)
Costa Rica (July 1971)
Cote d'Ivoire (February 1968)
Croatia (July 1993)
Cuba (November 1998)
Cyprus (April 1996)
Ecuador (June 1971)
Egypt (March 1998)
El Salvador (September 1974)
Ethiopia (February 1977)
Georgia (May 1996)
Ghana (June 1975)
Greece (December 1991)
Guinea (October 1976)
Hungary (April 1991)
India (December 1996)
Indonesia (May 1968)
Israel (August 1991)
Japan (February 1970)
Kazakhstan (February 1994)
Kenya (September 1998)
Korea (July 1994)
Korea DPR (June 1993)
Kuwait (May 1978)
Kyrgyz Republic (February 1995)
Lebanon (July 1998)
Libya (February 1971)
Lithuania (June 1996)
Macedonia (May 1999)
Madagascar (April 1984)
Mexico (May 1978)
Moldova (January 1995)
Mongolia (May 1991)
Morocco (May 1996)
Mozambique (November 1977)
New Zealand (November 1967)
Pakistan (May 1998)
Peru (March 1969)
Romania (January 1991)
Russia (October 1991)
Senegal (August 1970)
Serbia/Montenegro (January 1996)
Slovenia (April 1994)
Singapore (May 1966)
Sudan (June 1970)
Syria (February 1998)
Tajikistan (September 1997)
Tanzania (November 1977)
Thailand (March 1970)
Tunisia (July 1995)
Turkey (December 1994)
Ukraine (January 1996)
Uruguay (August 1998)
USA (November 1991)
Uzbekistan (September 1998)
Venezuela (September 1998)
Vietnam (March 1993)
Yemen (April 1964)
Zambia (August 1974)

Other Trade Agreements

Afghanistan (April 1973)
Bangladesh (February 1974)
China (October 1990)
Jordan (July 1977)
Malaysia (June 1971)
Nepal (October 1969)
Rwanda (April 1983)
USA (July 1998)
Zimbabwe (August 1980)

Source: Information provided by the Bulgarian authorities.

1/ In addition to these countries, as a WTO member, Bulgaria has extended MFN status to all other WTO members.

Table A60. Bulgaria: Import Tariffs, 1995-99 1/

(In percent unless otherwise indicated)

	1995	1996	1997	1998	1999
All products:					
Minimum MFN tariff rate	5	5	0	0	0
Maximum MFN tariff rate	55	55	120	110	74
Simple average MFN tariff rate 2/	17.4	17.2	16.8	18.1	15.2
Number of tariff lines 2/	9,180	9,273	9,374	10,901	10,765
Industrial products:					
Minimum MFN tariff rate	5	5	0	0	0
Maximum MFN tariff rate	40	40	40	40	35
Simple average MFN tariff rate	16.4	16.1	15.5	15.3	12.6
Number of tariff lines 2/	8,147	8,229	8,320	8,392	8,254
Agricultural products:					
Minimum MFN tariff rate	5	5	0	0	0
Maximum MFN tariff rate	55	55	120	110	74
Simple average MFN tariff rate	25.4	26.2	27.6	27.5	24.6
Number of tariff lines 2/	1,034	1,044	1,054	2,509	2,511
Memorandum item:					
Import surcharge 3/	1	5	4	2	0

Sources: Data provided by the Bulgarian authorities; and staff estimates.

1/ Applied ad valorem tariffs as at 1 January each year.

2/ This item is estimated for 1995.

3/ The 5 percent rate became effective on 1 June 1996, while the 4 percent and 2 percent rates became effective on 1 July 1997 and 1998, respectively. The import surcharge has been abolished as of January 1, 1999.

Table A61. Bulgaria: Products Subject to Export Prohibitions, 1995-99 1/

1995		1996		1997		1998		1999	
10	Wheat and meslin 1001 (from June) 2/ Ray 1002 (from December) Barley for the brewing industry 1003002 2/ Oats 1004 (from December) Maize 1005	10	Wheat and meslin 1001 Ray 100200 Barley 100300 Oats 100400 Maize ex. 100510, ex. 100590	10	Wheat and meslin ex. 1001 3/ Ray 100200 3/ Barley 100300 ex. 100300101 3/ Oats 100400 3/ Maize ex. 1005 3/				
11	Wheat or meslin flour, other cereal flours 1101, 1102 (from October) Cereal groats, meal and pellets 1103 (from December) Cereal grains otherwise worked, germ of cereals, whole, rolled, flaked or ground 1104 (from October)	11	Wheat or meslin flour, other cereal flours 110100, 1102 Cereal groats, meal and pellets 1103 Cereal grains otherwise worked, germ of cereals, whole, rolled, flaked or ground 1104	11	Wheat or meslin flour, other cereal flours 110100, 1102 3/ Cereal groats, meal and pellets 1103 3/ Cereal grains otherwise worked, germ of cereals, whole, rolled, flaked or ground 1104 3/				
12	Sunflower seeds 1206 ex. 12060092 (from December)	12	Soya beans 120100 Sunflower seeds ex. 120600001, 120600004, 120600009	12	Soya beans 120100 (January through May) Sunflower seeds 1206 ex. 120600001, 120600004, 12060009) 3/				
15	Crude sunflower oil ex. 151211 (from December) Refined sunflower oil ex. 151219 (from December)	15	Crude sunflower oil, ex. 151211 4/ Refined sunflower oil, ex. 151219 4/ Other mixtures or preparations of vegetable fats or oils 151790001 Soya bean oil, not chemically modified 1507	15	Crude sunflower oil ex. 151211 3/ Refined sunflower oil ex. 151219 3/ Other mixtures or preparations of vegetable fats or oils 151790001 3/ Soya bean oil, not chemically modified 1507 (January through May)				
		19	Pasta ex. 1902 (from September)						
23	Bran, sharps etc derived from milling of maize, wheat and other cereals 23021, 230230, 230240 (from December)	23	Bran, sharps etc derived from milling of maize, wheat and other cereals 230210, 230230, 230240 Residues of starch manufacture, beet-pulp, other waste of sugar manufacture, brewing or distilling 2303 Oil-cake and other solid residues, resulting from the extraction of soy-bean oil 230400 Oil-cake and other solid residues, resulting from the extraction of sunflower seeds 230630 Preparations of a kind used in animal feeding ex. 230990	23	Bran, sharps etc derived from milling of maize, wheat and other cereals 230210, 230230, 230240 3/ Residues of starch manufacture, beet-pulp, other waste of sugar manufacture, brewing or distilling 2303 (January through May) Oil-cake and other solid residues, resulting from the extraction of soy-bean oil 230400 (January through May) Oil-cake and other solid residues, resulting from the extraction of sunflower seeds 230630 3/ Preparations of a kind used in animal feeding ex. 230990 3/				
	Oil-cake and other solid residues, resulting from the extraction of soy-bean oil 230400 (from December) Oil-cake and other solid residues, resulting from the extraction of sunflower seeds 230630 (from December) Preparations used in animal feeding, ex. 230990 (from December)			27	Fuels: aviation, automobile, kerosine, diesel, heavy fuels, propane-butane, ex. 271000, 2711 (February through April)				
28	Potassium iodate/iodide and iodised salt ex 28299090, 282760, 25010030	28	Potassium iodate/iodide and iodised salt ex 28299080, 282760, 250100910	28	Potassium iodate/iodide and iodised salt ex. 282990800, 282760, 250100910				
72	Ferrous waste and scrap (6 lines)	72	Ferrous waste and scrap 720410, 720430, 720441, 720449, 720450 ex. 720450101 5/	72	Ferrous waste and scrap 720410, 720430, 720441, 720449, 720450 ex. 720450101 6/				
74	Non-ferrous waste and scrap (1 line) Ingots, billets of copper 7402001, 740313, 740319	74	Non-ferrous waste and scrap (1 line) Ingots, billets of copper (2 lines)	74	Non-ferrous waste and scrap (1 line) Ingots, billets of copper 740313, 740319				
75	Non-ferrous waste and scrap (1 line)								
76	Non-ferrous waste and scrap (1 line)								
78	Non-ferrous waste and scrap (1 line)	78	Non-ferrous waste and scrap (1 line)	78	Non-ferrous waste and scrap (1 line)				
79	Non-ferrous waste and scrap (1 line)								
80	Non-ferrous waste and scrap (1 line)	80	Non-ferrous waste and scrap (1 line)	80	Non-ferrous waste and scrap (1 line)				
		85	Waste and scrap of primary and spent cells, batteries, and accumulators 854810	85	Waste and scrap of primary and spent cells, batteries, and accumulators 854810				
		93	Anti-personnel land mines 930690100	93	Anti-personnel land mines 930690100	93	Anti-personnel land mines 930690100	93	Anti-personnel land mines 930690100

Source: Information supplied by the Bulgarian authorities.

1/ In addition to the products listed in the table, the following products were subject to export prohibitions for the purposes of conservation of exhaustible natural resources or protection of human, animal or plant life or health, in compliance with Article XX of GATT 1994: goods received as humanitarian aid, blood globulin, human blood, sera and haemoglobin, and natural mud for medicinal purposes. Exports of unfermented and unprocessed tobacco were also prohibited in 1995-97. In 1998, the only products subject to export prohibitions were those listed in this footnote together with anti-personnel land mines (9306901).

2/ Excluding an export quota for certain wheat (1001109, 1001909) and barley (1003 excluding 100300101) items.

3/ Abolished as of 1 July, 1997.

4/ Excluding export quotas of 30,000 tonnes for 151211 and 151219 between August 1996 and February 1997.

5/ Excluding an export quota of 75,000 tonnes for 7204 (excluding 7204211, 720419, 720429 , 720450101).

6/ Excluding an export quota of 150,000 tonnes for 7204 (excluding 7204211 ,720419, 720429, 720450101).