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Slovak Republic: Selected Issues and Statistical Appendix

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SLOVAK REPUBLIC

Selected Issues and Statistical Appendix

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Approved by European I Department

July 24, 2002

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I. Slovakia's External Current Account Deficit: Why So Large and Is It Sustainable?[1]

A. Introduction

1. ***Slovakia's economic growth has been accompanied by recurring large external current account deficits.*** Slovakia's external current account deficit widened through the late 1990s, reaching over 9 percent of GDP in 1996–98. With a strong macroeconomic policy adjustment in 1999, the external deficit was halved in 1999–2000, but widened sharply again in 2001 and—still at over 8 percent of GDP in 2002—remains around the levels reached in the mid- to late 1990s.

2. ***The large external deficit has raised macroeconomic risks, and may require adjustments in policies to address imbalances.*** Short-term vulnerability is low, but the external current account deficit remains above sustainable levels. Although the external deficit should start to narrow in the period ahead, as Slovakia starts to reap the export rewards of the industrial restructuring over the past few years, policy adjustments may still be needed to ensure the return of the external deficit to sustainable levels.

3. ***This chapter investigates the reasons for the large, recurrent external current account deficits in Slovakia, which are unusual by the current standards of other advanced transition economies, and the implications for external sustainability.*** The chapter focuses on the present episode (2001–02), and is organized as follows. Section B reviews the causes of the widening in the external deficit from 2001. Section C discusses Slovakia's competitiveness and estimates a range for the external current account deficit that could be sustainable in the medium term, as well as assessing short-term vulnerabilities. Section D concludes.

B. The Reasons Behind the Widening Current Account Deficit

4. ***The deterioration of the current account balance stems from a combination of factors, some of them exogenous and temporary, and others of a more structural nature, compounded in 2001 by an expansionary fiscal stance (Table 1).***

Exogenous and temporary factors

5. ***The downturn in Western Europe, Slovakia's main export market, adversely affected export performance and contributed about ½ percent of GDP of the widening of the current account deficit in 2001–02.***[2] The slowdown in exports—real growth decelerated

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[1] Prepared by Patrick Megarbane.

[2] The loss to Slovak exports caused by the slow growth in Western Europe has been estimated by assuming that the ratio of the trend to actual growth in Slovak non-oil real exports is equal to the ratio of the trend to actual growth in European real imports. The

(continued)

from 13.8 percent in 2000 to 6.5 percent in 2001—can be almost fully explained by the weak external environment. Non-oil exports decelerated less markedly in 2001 than European non-oil imports, indicating that Slovak exporters have continued to gain market share in the European markets (Figures 1–2). Moreover, the buoyant growth of exports in 2000 was partly due to the production pattern of the car manufacturer Volkswagen Slovakia, which accounts for 15 percent of Slovakia's exports. When car exports are excluded, the gain in market share in 2001 appears even more marked (see Figure 1). This evolution seems to indicate that Slovak exports remain competitive and that the recent slowdown in exports is likely to be temporary.

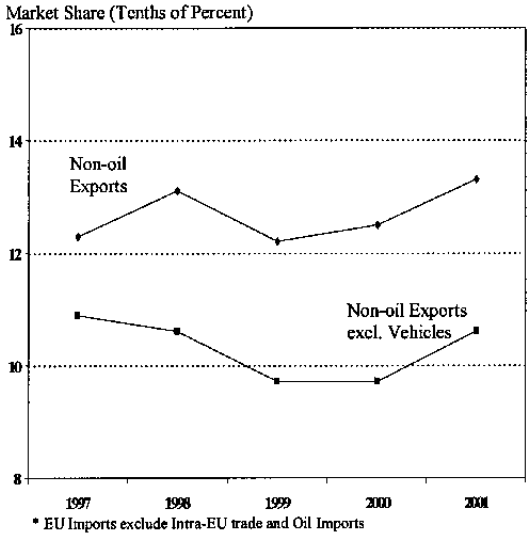
Table 1. Contribution to Widening of the External Current Account Deficit

(In percent of GDP)

	2001
Exogenous and Temporary Factors	**1.0**
Slowdown in Europe	0.5
Other factors	0.5
Structural Factors	**3.0**
Investment demand	1.5
Consumption shift	1.5
Total Analyzed Factors	**4.0**
Of which:	
Impact of policy measures	**0.9**
Fiscal expansion	0.4
NPF redemption	0.5

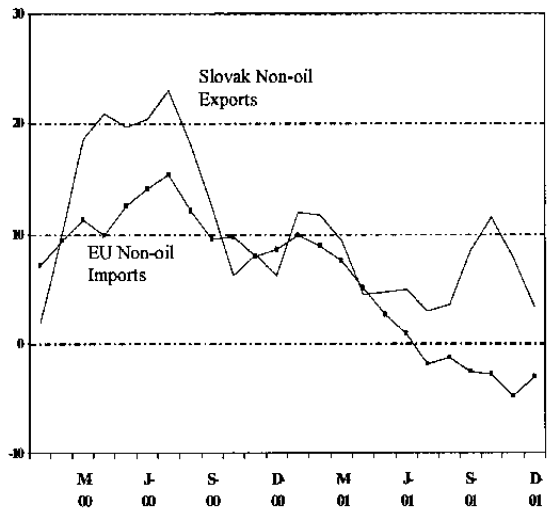
Source: IMF staff Calculations.

Figure 1. Market Share of Slovak Exports in EU Markets (Slovak Exports to EU Imports*)



* EU Imports exclude Intra-EU trade and Oil Imports

Figure 2. Export Growth Slowdown



import-content of Slovak non-oil exports is assumed equal to 60 percent, in line with trade equations calculated by staff and consistent with the assumption used by the Slovak Statistical Office.

6. ***Other temporary factors—such as the production pattern of Volkswagen Slovakia and the bad agricultural harvest—contributed to the deterioration of the current account by an additional ½ percent of GDP in 2001–02.***[3] Volkswagen Slovakia's production growth is characterized by a stop-and-go pattern, with periods of slow growth (such as 2001–02) succeeding periods of booms at the launch of new product lines (such as in 2000 and the one expected in mid-2002). This production pattern contributed to weaker Slovak exports in 2001 and early 2002, causing a temporary increase in the external current account deficit of about ¼ percent of GDP.[4] The bad harvest in 2000–01 led to higher imports of agricultural and food products resulting in a further deterioration of the external current account deficit of about ¼ percent of GDP.[5]

7. ***The exogenous and temporary factors that affected Slovakia's external position in 2001–02 fell short of explaining the overall deterioration of the current account deficit.*** After discounting for these factors, the underlying current account deficit remains large at about 7½–8 percent of GDP in 2001–02, compared with about 4 percent of GDP in 2000. This suggests that there are other factors—either structural or policy-induced—that contributed to the external imbalance.

Structural factors

Investment demand

8. ***The surge in the external current account deficit in 2001 partly reflects import-intensive investment activities.*** Fixed investment grew by 9.6 percent in real terms and was boosted by enterprise restructuring, increased profitability, and a reduced corporate income tax rate.[6] More than 10 percent of investment was related to greenfield foreign direct investment which amounted to 3.8 percent of GDP in 2001. This buoyant investment activity

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[3] The impact of higher energy prices on the current account balance has not been included because the increase in energy prices occurred in early 2000. Thus, it cannot account for the increase in the deficit in 2001. Moreover, although Slovakia imports a significant amount of fuel products, the impact of fuel prices on the current account is limited, due to substantial refinery and re-export of fuel products. Thus, the (first round) impact on the current account deficit of a $5 per barrel increase in oil prices is estimated at 0.5 percent of GDP.

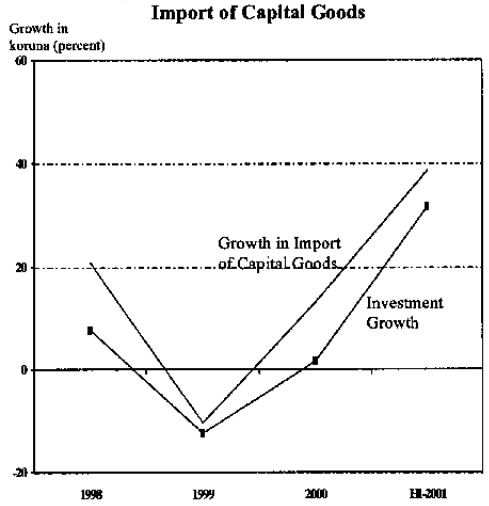
[4] The impact of Volkswagen Slovakia's production pattern has been estimated by comparing the actual and projected production over the period 2000–05 by its log-linear regression and using the actual value for the import content of production (78 percent).

[5] The impact of the bad harvest on the current account deficit has been estimated by comparing the actual import growth of agricultural products in 2001 with its historical trend.

[6] The corporate income tax rate was reduced from 40 percent to 29 percent effective January 1, 2001.

was highly import intensive and led to a sharp increase in the import of capital goods (Figure 3).

Figure 3. Growth in Investment and Import of Capital Goods



9. ***The surge in the investment activity in 2001 contributed about 1½ percent of GDP to the enlarged current account deficit.*** The contribution of investment demand to the current account deficit was estimated based both on the acceleration in imports of capital goods, and also on the surge in gross capital formation (Table 2).

Table 2. Impact of the Investment Demand on the Current Account Balance

		Growth Rates		Acceleration		Impact on CA
		1997-2000	2001	2001/97-2000		2001
		(a)	(c)	(d)=(c)-(a)		
Gross capital formation 1/		4.1	15.2	11.1	⇨	**1.9** percent of GDP (d)*(f)*(g)
Import of capital goods 2/		17.3	27.8	10.5	⇨	**1.5** percent of GDP (d)*(e)
Memorandum items:		*in Percent*				
Imported capital goods to GDP in 2000	(e)	14.6				
Import-content of new investment 1999-2001	(f)	65.0				
Investment to GDP in 2000	(g)	26.4				

Sources: Slovak Statistical Office; and IMF staff estimates.
(f) is defined as the ratio between the increase in imported capital over 1999-2001 and the increase in gross investment over 1999-2001.
1/ Growth rates in constant price.
2/ Growth rates in koruna terms.

A secular shift in consumption behavior

10. ***The widening of the current account deficit was also partly caused by a surge in imports of consumer goods.*** A detailed analysis of the composition of imports indicates that the surge in imports, which started in the second half of 2000, occurred across a wide range of product categories. Capital and intermediate goods increased sharply but so did consumer goods. For the first half of 2001, consumer goods explain one-third of the increase in imports (Box 1 and Table 3).

11. ***The surge in imports of consumer goods contributed about 1½ percentage points of GDP to the deterioration of the current account deficit in 2001.*** The contribution of the

Box 1. The Surge in Imports in 2001[1]

For the first half of 2001, consumer and capital goods increased relatively more rapidly than intermediate goods.

- While imports of intermediate goods increased by 25.2 percent on an annual basis in current prices during the first half of 2001, imports of capital goods increased by 32.6 percent and imports of consumer goods increased by 34.7 percent during the same period.
- The surge in the imports of capital goods was driven to an important extent by foreign direct investment and joint-venture companies, but reflected also a broader momentum in investment activities.
- The surge in consumer goods cannot be explained entirely by the temporary increase in food items (33.4 percent) and car imports. There was also a sharp increase in a number of product categories, mainly consumer goods: in the first half of 2001, imports of TV and radio receivers rose by 66.8 percent in current prices, imports of computer equipment by 50.4 percent, imports of textiles by 30.5 percent, and imports of miscellaneous manufactures by 60.8 percent.
- The relatively lower growth in the import of intermediate goods reflected largely the subdued growth in mineral products: non-oil intermediate goods grew by 29.6 percent.

Comparing growth rates in the first half of 2001 to past growth trends, it appears that **imports in consumer goods accelerated from 14.3 percent on average in the period 1998-2000 to 34.7 percent in the first half of 2001**, while imports in intermediate goods accelerated from 17.0 percent to 25.2 percent. However, the growth in the import of capital goods accelerated more rapidly than the growth for other commodities (from 9.0 percent to a buoyant 32.6 percent). Nevertheless, capital goods explain no more than one-third of the acceleration in imports in the first half of 2001 (Table).

	Share in total imports	Annualized YOY Growth Rate in Koruna			Contribution to Growth				Source of Acceleration	
	2000	1998-2000 Average	2000	2001 Q1-Q2	1998-2000 Average	2000	2001 Q1-Q2	2001 Q1-Q2	2001 vs 1998-2000	
	(a)	(b)	(c)	(d)	(e)=(a*b)	(f)=(a*c)	(g)=(a*d)	(h)=(g) in %	(i)=(g-e)	(j)=(i) in %
(Based on IMF Staff estimates)										
Total import of goods	**100.0**	**14.5**	**26.0**	**30.0**	**14.5**	**26.0**	**30.0**	**100.0**	**15.6**	**100.0**
Intermediate goods	50.6	17.0	39.9	25.2	8.6	20.2	12.8	44.3	4.2	26.7
of which mineral products	18.9	17.5	65.7	17.9	3.3	12.4	3.4	11.2	0.1	0.5
of which non-mineral products	31.6	16.7	24.5	29.6	5.3	7.8	9.4	31.2	4.1	26.2
Capital goods	21.8	9.0	14.6	32.6	2.0	3.2	7.1	23.7	5.2	33.1
Consumer goods	27.6	14.3	18.0	34.7	3.9	5.0	9.6	31.9	5.7	36.3
(Based on Statistical Office estimates)										
Total import of goods	**100.0**	**14.5**	**26.0**	**30.0**	**14.5**	**26.0**	**30.0**	**100.0**	**15.6**	**100.0**
Intermediate goods	57.1	18.9	33.4	26.9	10.8	19.1	15.4	51.1	4.5	29.2
Capital goods	17.9	7.0	13.2	38.6	1.3	2.4	6.9	23.0	5.7	36.4
Consumer goods	25.0	13.1	20.5	31.3	3.3	5.1	7.8	26.0	4.5	29.1

[1] A breakdown of imports into capital, consumer, and intermediate goods is not readily available in the official statistics. To obtain this decomposition, it was necessary to use a disaggregated breakdown of imports and allocate the various items to the three main categories. Ad hoc assumptions were sometimes necessary since many items consisted of a mix of two or three categories. This exercise was performed separately by the IMF staff and the Statistical Office of the Slovak Republic. The composition of imports was analyzed based on both breakdowns. The table shows the results of the two analyzed sets, while the text refers to the results based on the IMF breakdown. Both breakdowns support the findings of the present box.

surge in consumer imports was estimated by assessing separately the acceleration in the import of consumer goods and the surge in domestic consumption (Table 3).

Table 3. Impact of the Consumption Increase on the Current Account Balance

	Growth Rates		Acceleration		Impact on CA
	1997-2000	2001	2001/97-2000		2001
	(a)	(c)	(d)=(c)-(a)		
Domestic consumption 1/	1.1	4.2	3.1	⇨	1.4 percent of GDP (d)*(f)*(g)
Import of consumer goods 2/	17.8	27.8	10.0	⇨	1.7 percent of GDP (d)*(e)

Memorandum Items		in Percent
Imported consumer goods to GDP in 2000	(e)	16.6
Import-content of new consumption 1999-2001	(f)	60.0
Consumption to GDP in 2000	(g)	76.0

Sources: Slovak Statistical Office; and IMF staff estimates.

(f) is defined as the ratio between the increase in imported consumer goods over 1999-2001 and the increase in consumption over 1999-2001.

1/ Growth rates in constant price.

2/ Growth rates in koruna terms.

12. ***Notwithstanding the temporary exogenous factors, the surge in imports of consumer goods appears to be related to a secular shift in the propensity of households to spend on imported goods.*** As the transition process proceeds and real convergence takes place, the consumption pattern of households is likely to evolve toward the consumption pattern of higher income countries. Domestic firms would normally adapt their production to the changing demand within the limits of their competitive advantage, but a significant part of this evolving consumption will have to be met by an increase in imported goods, causing a deterioration in the current account deficit. In addition, short-term rigidities, restructuring needs, and possibly structural impediments might prevent domestic producers from adjusting their output in the short run, further increasing the need for imported goods and compounding the deterioration of the current account balance.

13. ***Countries that entered the EU 15–20 years ago, then having a substantial per capita income differential with EU countries, showed a substantial shift in consumption patterns over time, as their income converged to EU levels (Box 2).***

14. ***Evidence suggests that this shift has already started to occur in Slovakia.*** First, the surge in the import of consumer goods appears to have outpaced the increase in gross disposable income and domestic consumption, indicating that the propensity to spend on importable goods has increased (Figures 4–5). Second, the analysis of the composition of imports indicates that the growth of some durable consumer goods has been particularly strong since mid-2000—such as the imports of cars, computer equipment (50.4 percent in current prices), TV and radio receivers (66.8 percent)—indicating that a change in consumption behavior driven by real convergence in income is taking place (Box 2). Finally, there is evidence that Slovak firms producing consumer goods are losing market share in the

Box 2. Evidence of Convergence in Consumption Patterns

There is evidence that the evolution of Slovak household consumption patterns toward the patterns of the wealthier European Union countries is already under way. This conjecture is supported by the analysis of the consumption patterns of two large consumer goods, passenger cars and televisions.

Based on data for selected EU countries, Figure A illustrates that, as real income increases, the number of cars per capita increases. Slovakia is following this pattern and currently the propensity to consume passenger cars in Slovakia is as high as it was for Greece and Portugal when household incomes were at similar levels in these countries.

Based on available data, Figure B suggests that the number of televisions per capita also increases with real income. The trend observed for Slovakia appears to show that convergence in consumption in this area is proceeding quickly. Indeed, the number of televisions per capita in Slovakia is higher than in Portugal for similar income levels.

Figure A. Wealth Effect on Cars per Capita, 1978–99

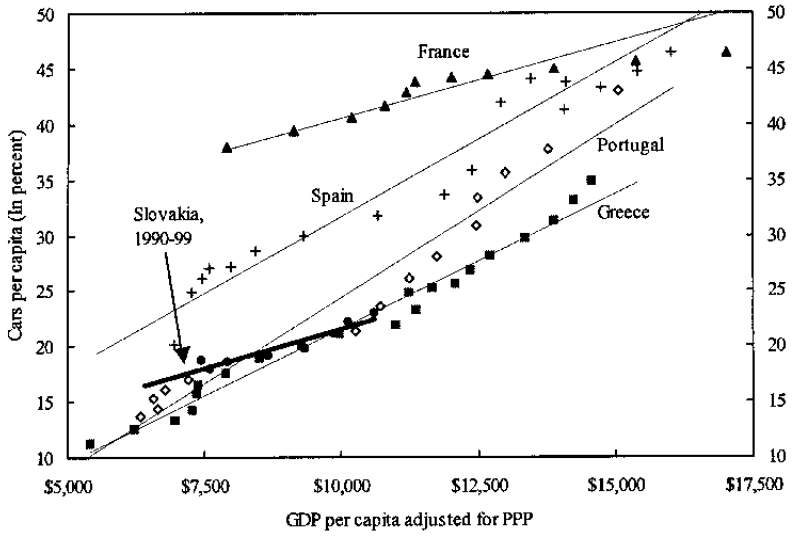


Figure B. Wealth Effect on Televisions per Thousand, 1995–99

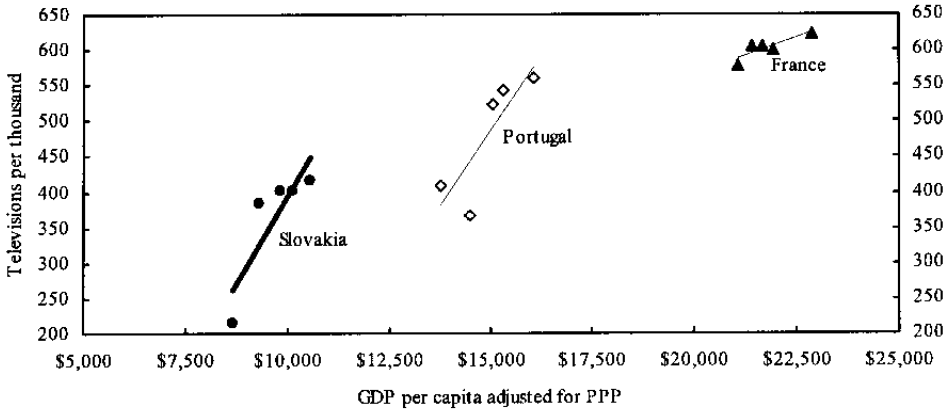


Figure 4. Growth in Consumer Import and Domestic Consumption

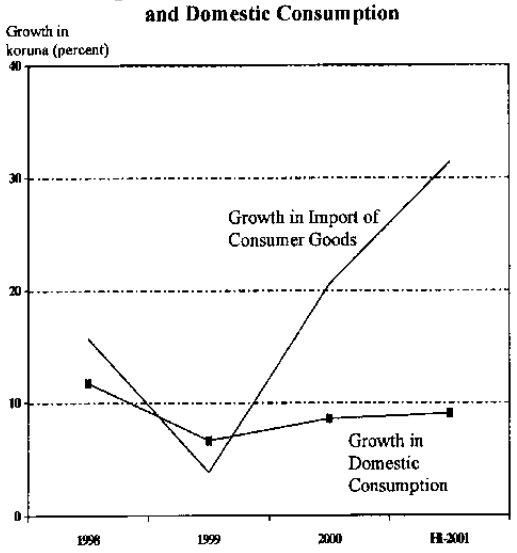
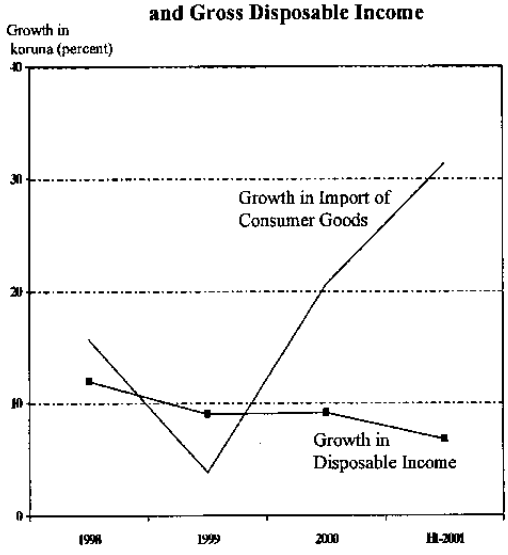


Figure 5. Growth in Consumer Import and Gross Disposable Income



domestic market, as successful foreign retail chains that tend to sell foreign goods are increasingly shaping consumers' preferences.

15. ***Structural factors appear to have been more pronounced in Slovakia than in other countries in the region.*** Indeed, Slovakia started the process of economic transformation later than most neighboring countries, and its initial level of income was lower than the Central European countries' (CEC5)[7] average. Moreover, the country's specialization in heavy industries prior to 1990 was to the detriment of consumer goods production industries, and required more enterprise restructuring than in some neighboring countries later on. This restructuring is still in process. More broadly, the Slovak pattern of economic growth accompanied by large current account deficits has not been evident in the other CEC5 economies (Box 3).

The role of macroeconomic policies

16. ***Fiscal expansion—reflecting both above- and below-the-line items—is estimated to have contributed about 1 percent of GDP of the external deficit widening in 2001.*** As noted earlier, the general government deficit widened in 2001 by ½ percentage point of GDP, to 4.0 percent of GDP. Once the increase in state-guaranteed debt is included in the overall fiscal position, government net savings deteriorated by 0.8 percent of GDP in 2001. Assuming that about half of this deterioration was offset by higher private sector savings, the looser fiscal stance in 2001 would have contributed about 0.4 percent of GDP to the enlarged

[7] The CEC5 countries are the Czech Republic, Hungary, Poland, the Slovak Republic, and Slovenia.

external current account deficit in 2001.[8] Some fiscal measures, such as the removal of the import surcharge and the reduction in corporate and personal income tax rates in 2001, are likely to have particularly fueled the demand for imports. Moreover, a large below-the-line operation—the repayment of National Property Fund (NPF) bonds[9]—improved the liquidity position of households, resulting in an increase in consumption. This repayment is estimated to have contributed an additional ½ percent of GDP to the current account deficit.[10]

Box 3. Current Account Deficits in Other Advanced Transition Countries

Slovakia's economic growth has been accompanied by large external current account deficits—more so than in other countries in the region. In 1996–98, and again in 2001–02, Slovakia was the only country in the region with a large current account deficit. In contrast, the CEC5 countries generally managed to maintain an external current account deficit below 5 percent of GDP (table).

Domestic Demand Growth and Current Account Deficits in the CEC5 Countries

	1996-98	1999-2000	2001-02
Slovakia			
Current account deficit (percent of GDP)	-8.8	-4.3	-8.6
Real GDP growth	5.5	1.8	3.7
Real domestic demand growth	9.6	-3.1	5.3
Consumption	7.2	-0.5	4.0
Gross investment	15.8	-8.7	9.0
Region (simple average, CEC5, excl. Slovakia)			
Current account deficit (percent of GDP)	-2.9	-4.5	-3.2
Real GDP growth	3.5	3.8	2.8
Real domestic demand growth	4.4	3.7	3.0

Sources: Slovak Statistical Office; WEO, Winter 2002 Board version; and staff estimates.

[8] The authorities assume that about 70 percent of any increase in domestic demand would translate in increased imports.

[9] NPF bonds were issued in 1996 in lieu of vouchers when the second wave of voucher privatization was cancelled. These bonds were redeemed in 2001 and 2002.

[10] It is estimated that 40 to 60 percent of the retired NPF bonds has been spent contributing to an increase in domestic demands of about ¾ percent of GDP and implying a deterioration of the external deficit by about ½ percent of GDP (assuming that 60 percent of the spending went to imports; see Table 1).

C. Short-Term Vulnerability and Medium-Term Sustainability

17. ***Even after netting out the impact of the exogenous and temporary factors, the underlying current account deficit in 2001–02 (of about 7½–8 percent) remains higher than the levels that could safely be financed over the medium term (about 6–7 percent).*** To assess the resulting increase in macroeconomic risks, staff analyzed the competitiveness of the Slovak economy, financing issues over the medium term, and the near-term risk of balance-of-payment crisis.

Competitiveness

18. ***A broad range of indicators show no evidence that the external imbalances reflect cost-related competitiveness problems.***

- Although the CPI-based real effective exchange rate (REER) has appreciated by about 8 percent from 1995 through end-2001, this modest appreciation is unlikely to have led to a loss of competitiveness and compares favorably with appreciations in neighboring countries (Figure 6). In fact, the real appreciation appears to be part of the real convergence and is expected to continue in the coming years.[11]

Figure 6.
CPI-based Real Effective Exchange Rate

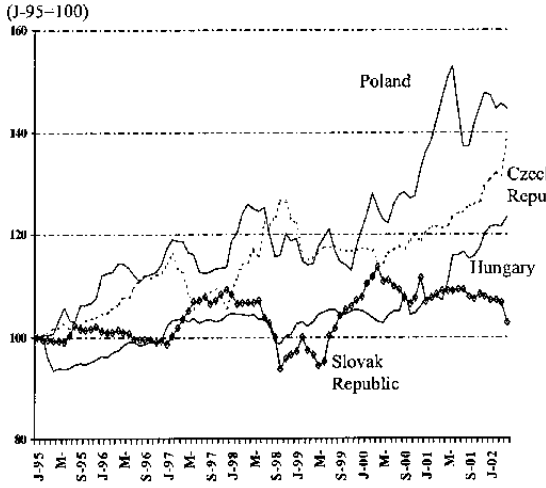
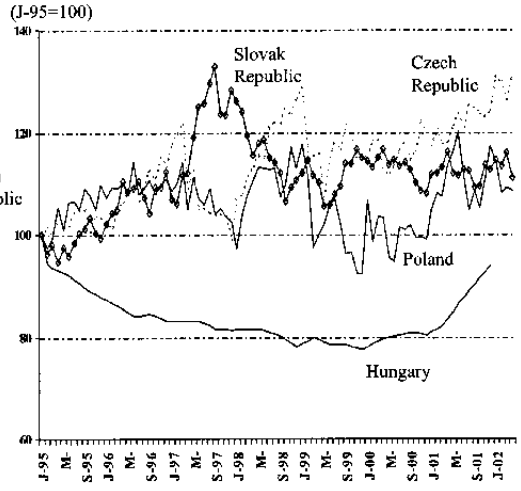


Figure 7.
ULC-based Real Effective Exchange Rate



- Over the long-run, Slovakia's ULC-based REER remained in line with trends observed in Poland and the Czech Republic, with structural reform-induced productivity gains and moderate wage increases playing a leading role in preserving competitiveness (Figure 7).

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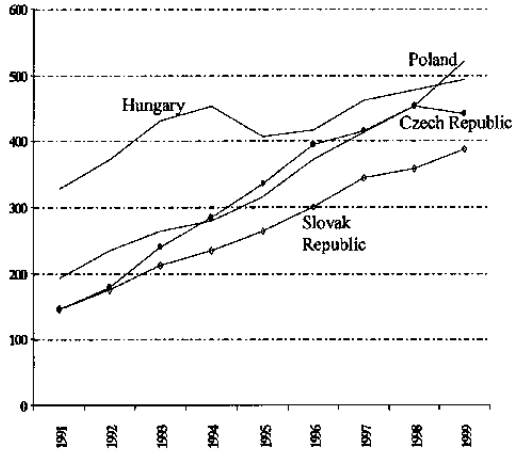
[11] During the transition process, a number of factors might be expected to contribute to an appreciation of the REER, including the Balassa-Samuelson effect, productivity gains stemming from economic restructuring and improvement in the quality of goods, elimination of price controls, changes in the composition of public spending and persistent capital flows.

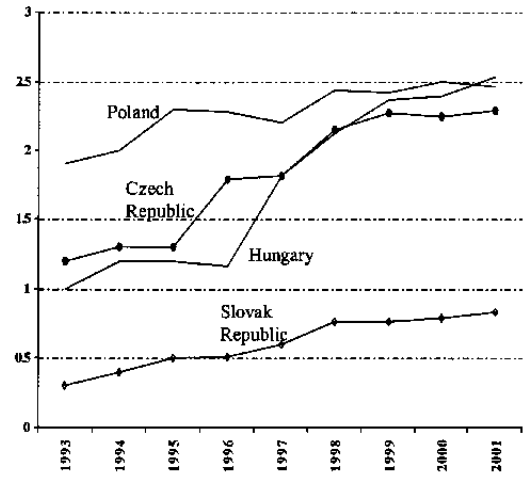
- The evolution of the euro-denominated wages in the industrial sector shows that wage growth in Slovakia has been in line with trends in neighboring countries and that Slovakia remains a country with relatively cheap labor[12] (Figure 8).

Figure 8.
Average Gross Monthly Wages in Industry (in Euro)



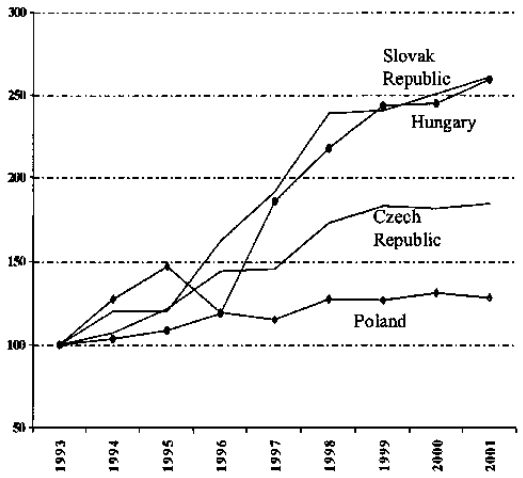
19. ***Moreover, Slovakia's continued strong export performance points to the sound competitiveness of Slovakia's export sector.*** The country's export performance to the EU was the strongest in the region, with the share of Slovak exports in the total EU imports more than doubling from 1993 to 2001. This rapid penetration of the EU markets reflects not only the end of managed trade and a burst of economic relations with Western Europe, it also points to the sound competitiveness of Slovakia's export sector (Figures 9 and 10).

Figure 9. Export to EU as share of Total EU Imports* (in percent)



*excluding intra EU trade and oil imports

Figure 10. Export to EU as share of Total EU Imports* (index 1993=100)



*excluding intra EU trade and oil imports

[12] Comparing wages across countries can be difficult because of the difficulty in correctly capturing the indirect direct labor costs.

20. ***Slovakia's business environment, though slightly less attractive than in neighboring countries, has improved substantially over the past years and became conducive to sound investment and effective restructuring.*** For the period 1996 to 2000, the Economist Intelligence Unit Report on World Investment Prospects ranked Slovakia 37th with respect to the business environment, with other CECs placed between 26 (Hungary) and 32 (Czech Republic)[13] (Figure 11). The structural reforms implemented since 1999, including the restructuring of the banking sector, the privatization of some important state-owned companies, the improvement of fiscal transparency and the curtailment of some quasi-fiscal activities, have substantially improved the business climate and created an environment that is more conducive to profitable investment.

21. ***As a result, substantial restructuring occurred in the corporate sector, as reflected in strong productivity increases, improved profitability and sustained export growth (Figure 13–14).*** To increase productivity, firms usually downsized their workforce, reorganized their activities, and upgraded their technology. Gains in productivity, together with higher export sales and lower taxation, resulted in a strong improvement in profitability, in particular in the industrial sector.

22. ***However, further restructuring remains necessary to preserve competitiveness, and many companies still need to reassess their strategic positioning in an environment that is increasingly integrated with the global economy.*** Despite the absence of cost-related competitiveness problems, some firms are losing market share in the domestic market to foreign producers, as they are having difficulties adapting to evolving consumer preferences and changing market structures (Box 4).

23. ***The unfinished transformation of the enterprise sector has increased the reliance of the economy on imported goods, contributing to the widening current account deficit.*** As noted, consumer demand has been relying to a large extent on imported goods because domestic producers have had difficulties adapting to the new competitive environment. Also, many large enterprises have had difficulties finding reliable good quality domestic suppliers and needed to rely primarily on imported intermediate goods.

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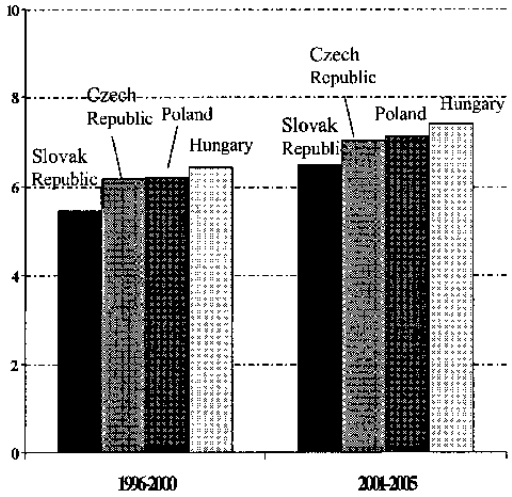
[13] More specifically, the strongest factors explaining Slovakia's attractiveness as a business location are considered to be the availability of competitively priced and skilled labor as well as open trade and exchange regimes. On the other hand, market opportunities, financing and policies toward foreign investment are seen as the main weaknesses of the Slovak economy relatively to its neighboring countries (Figure 12).

Figure 11.
EIU Business Environment Scores
(out of 10)



Ranks

Slovak Republic	37	35
Czech Republic	32	32
Poland	31	30
Hungary	28	27

Figure 12.
Slovak Scores by Category 1996-2001
(as a percentage of CEECs average scores)

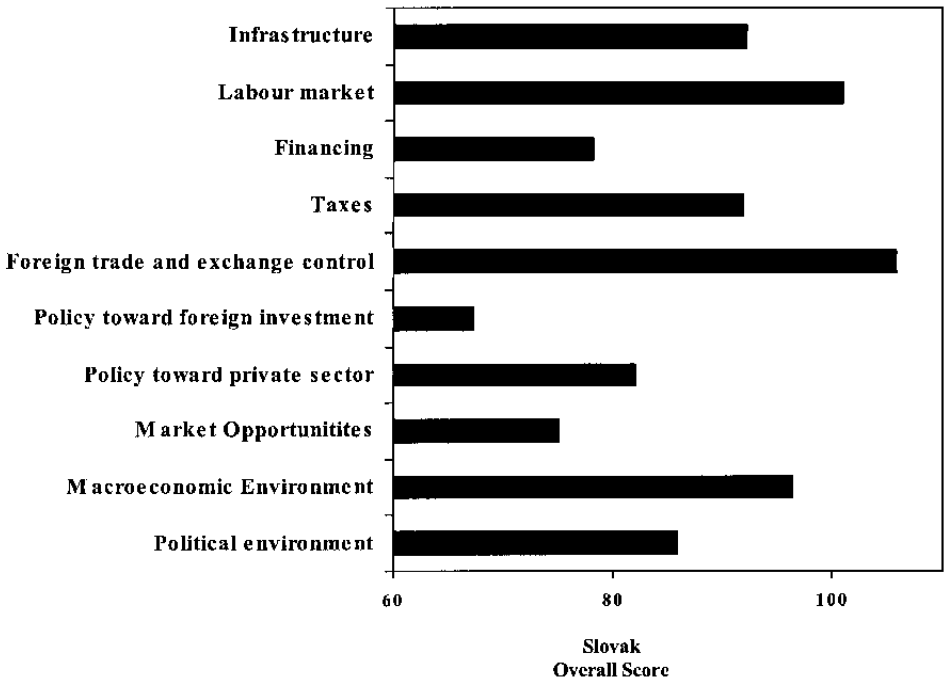


Figure 13. Evolution of the Profitability of Entreprises

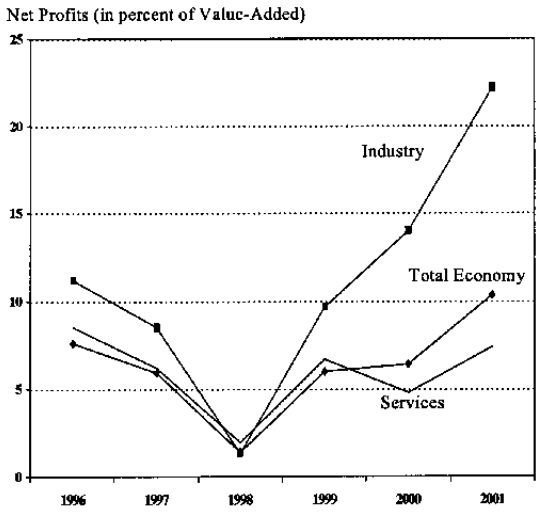
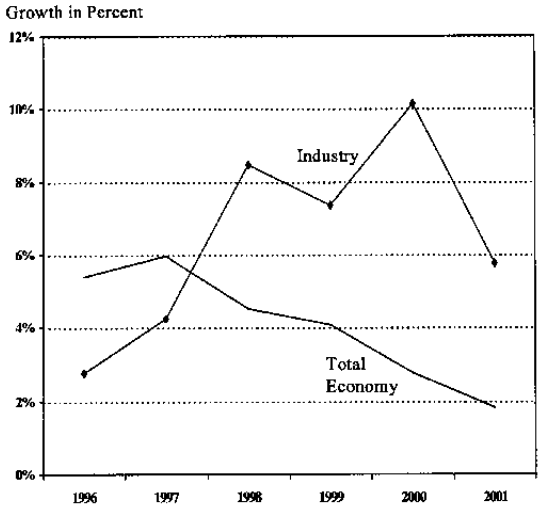


Figure 14. Productivity Gains



Medium-term sustainability

24. ***From a financing point of view, the current account is sustainable if the resulting net foreign debt ratio is not increasing.*** To achieve this end, debt-creating flows—needed to finance the share of the deficit that is not covered by nondebt creating flows—should not increase the net foreign debt faster than GDP. This condition is given by: CA = (g*/(1+g*)) NFD + B where CA denotes the current account as a share of GDP, g* the GDP growth in foreign currency terms, NFD the net foreign debt ratio, and B net nondebt-creating inflows as a share of GDP. However, a stable or declining external debt ratio is a arbitrary condition of sustainability, in the sense that it ignores differences in the initial debt levels.

25. ***An alternative, and arguably more meaningful approach, is to consider that the current account is sustainable if the resulting gross external debt ratio (GED) converges in the medium-term toward the average debt ratio in countries with similar characteristics*** (for instance the CEC5 countries), while assuming that foreign assets remain constant in terms of GDP. For Slovakia, this implies a tighter constraint on the current account, as its current level of gross external debt is higher than the CEC5 average.

26. ***Estimates based on Winter 2002 WEO projections indicate that a current account deficit of up to 5.8 to 6.8 percent of GDP would be sustainable in Slovakia in the medium-term, depending on whether the gross debt ratio is assumed to remain stable or decline to regional averages (Table 4).*** Similar estimates give rough limits for the current account deficit of 4.6 percent of GDP on average in the region. The relatively high level in the Slovak Republic is a direct reflection of large FDI inflows projected over the coming years including privatization receipts. These estimates, however, implicitly assume a growth path and FDI levels consistent with underlying policies, which in Slovakia, include a determined pursuit of fiscal discipline and implementation of structural reforms.

Box 4. Two Cases on the Need for Corporate Restructuring

Company A

Company A is a small-size Slovak enterprise with 140 employees and Sk 220 million in annual sales, producing consumer products.

The company has been losing market share over the past few years, especially since large retail chains have dominated the distribution channels in Slovakia. With the change in the retail market, Company A is faced with (i) increased competition from low-cost foreign producers that, thanks to their larger range of products, are better positioned to negotiate with the retailers, and (ii) higher fixed costs, because the retail chains are requesting retail fees from the producers. In addition, consumers' preferences are evolving and require increasing marketing efforts.

As a result, the financial position of Company A has become difficult. Despite a substantial downsizing of staff and significant productivity gains, profitability has been hit by stagnating sales and increasing distribution and marketing costs. In addition, the high level of indebtedness, inherited from the privatization process, is weighing on the ability of the company to finance needed investments.

Fundamentally, the fixed costs inherent to the company's activity (R&D, advertisement, distribution fees, etc.) are too important to be sustained by a small-size enterprise and the current market positioning of Company A is unsustainable.

Company A is considering a number of options to continue growing:

- Limiting the production under its own brand to a specific segment for which its products enjoy a strong reputation and a leading edge against competition, and developing a complete product line for this segment.
- Continuing to produce most of its remaining products for other private brands, possibly under a retailers' brand name.
- Finding new sources of financing, preferably in the form of equity capital, to undertake the needed capital upgrades.

Company B

Company B is a medium-size Slovak enterprise of 910 employees. The company produces food products for other food producers and directly to the retail market; 30 percent of the output is exported.

The establishment of large retail chains affected the company's activity by inducing (i) an increased competition from low-cost foreign producers, (ii higher distribution costs because of listing fees and other payments requested by the retail chains, and (iii) additional investment in warehouses to meet the wholesale requirements of the retailers.

The company enjoys a dominant position on the domestic market, and managed to preserve its market shares and margins, thanks to its close relations with agricultural suppliers, a substantial cut in its personnel, and an important investment program to modernize the production facilities and build warehouses. At the same time, the company was able to increase its exports, in particular to Eastern Europe.

However, the cost reduction strategy might soon find its limits, while the competition from multinationals and low-cost regional producers is likely to intensify. The company might then need to reassess its strategic positioning that could require the restructuring of its portfolio of activities and possible alliances with strategic partners.

Table 4. Range of Sustainable Current Account Deficits in the CEC5 Countries

	Nondebt-creating Flows (% of GDP)	GDP Growth in Dollar	Net Foreign Debt	Gross Foreign Debt	CA that is consistent with a	
					stable NFD	converging GED
	2002-06 (B)	2002-06 (g*)	2001 (NFD)	2001 (GED)		
Slovak Republic	6.9	10.5	-0.6	49.7	6.8	5.8
Average C-5	4.4	7.2	3.0	44.7	4.6	4.6

Sources: WEO; IMF staff calculations.

27. **Under appropriate policies, the external deficit should decline on its own accord once the present investment boom starts to pay off in the form of additional exports.** In this regard, it is reassuring that an important share of investment has taken place in tradable sectors recently, while investment in nontradable sectors has fallen (Table 5).

Table 5: Sectoral Breakdown of the Gross Fixed Capital Formation

	Share in Total GFCF 2000	Growth Rate 2001	Contribution to 2001 Growth
Agriculture	3.3	15.5	3.3
Mining	0.6	-5.7	-0.2
Manufacturing	24.7	**22.3**	**35.3**
Electr., gas and water supply	10.7	18.6	12.7
Construction	2.3	**-21.4**	**-3.2**
Wholesale	11.7	27.4	20.6
Hotels and restaurants	1.6	-49.3	-5.1
Transport, communications	8.7	17.5	9.8
Financial intermediation	10.2	**45.3**	**29.6**
Real estate, renting	15.9	**-13.6**	**-13.9**
Public administration	6.8	25.7	11.2
Education	1.0	-22.8	-1.4
Healt and social works	1.1	5.2	0.4
Other community	1.5	9.5	0.9
Total	**100.0**	**15.6**	**100.0**

Sources: Slovak Statistical Office; IMF staff calculations.

28. ***According to staff projections, the external position would remain sustainable in the medium term assuming corrective fiscal measures are implemented (Table 6, adjustment scenario).*** As exports recover with European demand and recent export-oriented investment activities start to pay off,[14] the tighter fiscal stance would contribute to moderate import growth. As a result, the current account deficit would decline steadily, while strong FDI inflows would further ease the financing constraints. In fact, the ratio of gross external debt to GDP would decline rapidly as part of the privatization receipts is used to reimburse the outstanding public debt and the shrinking current account deficit would allow a reduction in private sector indebtedness.

Table 6. External Indicators, 2001-06

	2001	2002	2003	2004	2005	2006
Adjustment scenario 1/						
Current account deficit (in percent of GDP)	-8.6	-8.5	-7.2	-6.3	-5.4	-4.7
Total debt (in percent of GDP)	55.8	53.4	46.4	42.5	38.2	34.0
of which public sector debt	17.4	16.1	9.9	8.5	7.1	5.9
of which private sector debt	38.4	37.3	36.5	34.0	31.1	28.1
Reserves in months of imports	3.0	5.3	4.1	3.8	3.4	2.9
Reserves/Adjusted short-term debt (percent)	92.9	136	121	134	132	133
Nonadjustment scenario						
Current account deficit (in percent of GDP)	-8.6	-8.8	-8.5	-7.5	-6.5	-5.8
Total debt (in percent of GDP)	55.8	56.5	52.2	49.8	46.9	43.8
of which public sector debt	17.4	16.7	10.4	9.0	7.5	6.2
of which private sector debt	38.4	39.8	41.8	40.8	39.4	37.6
Reserves in months of imports	3.0	5.3	4.1	3.8	3.3	2.9
Reserves/Adjusted short-term debt (percent)	92.9	130.5	105.7	107.3	96.8	88.2

Source: IMF staff estimates.

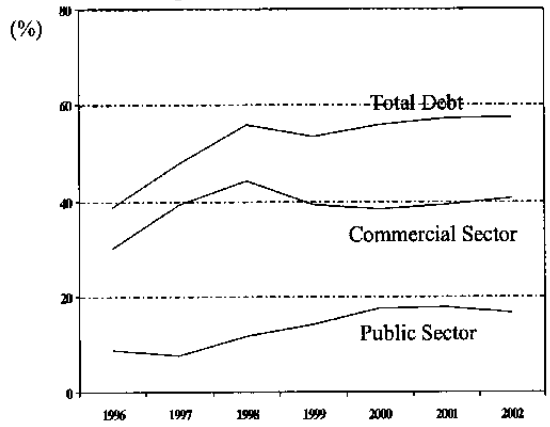
1/ The adjustment scenario is based on fiscal measures for over 3/4 percent of GDP in 2002 and over 2 percent of GDP in 2003 (see Staff Report for the 2002 Article IV Consultation with the Slovak Republic).

29. ***In the absence of a strong program of external adjustment, the external position would remain vulnerable in the medium term (Table 6, nonadjustment).*** This scenario would entail higher imports, a more depreciated exchange rate, weaker FDI inflows, and lower foreign reserves. However, the pressures on the external accounts would be somewhat mitigated by the recovery of European demand and the more depreciated exchange rate. As a result, although the ratio of gross public debt to GDP is expected to decline, the private sector debt would remain high and the amount of official reserves would eventually not be sufficient to fully cover the short-term debt. Such an outlook would increase macrocconomic risks. In particular, the export recovery could prove more modest than anticipated, as uncertainties would remain about the true profitability of current investment activities.

[14] After several months of negative growth, exports increased in April 2002 by 8.6 percent in dollar terms on an annual basis. It is, however, too soon to tell whether this would the beginning of the turnaround in export performance.

Short-term vulnerability

Figure 15: Total Debt to GDP



30. ***Short-term vulnerability is low (Figures 15 to 17), but could increase if a combination of adverse shocks were to materialize.*** While the Slovak economy seems capable of withstanding an isolated shock,[15] a combination of adverse developments could put the private sector in a difficult situation. Such a scenario could result from the political dynamics before and after the September elections. For example, the central bank could increase interest rates further because of inaction on the fiscal front and widening external imbalances, and the exchange rate could continue to depreciate, driven by a deterioration of market sentiment. Under this scenario, the cumulative impact of exchange rate depreciation, interest rate increases, and more difficult market access could put some

Figure 16: Reserves to Adjusted Short Term Debt

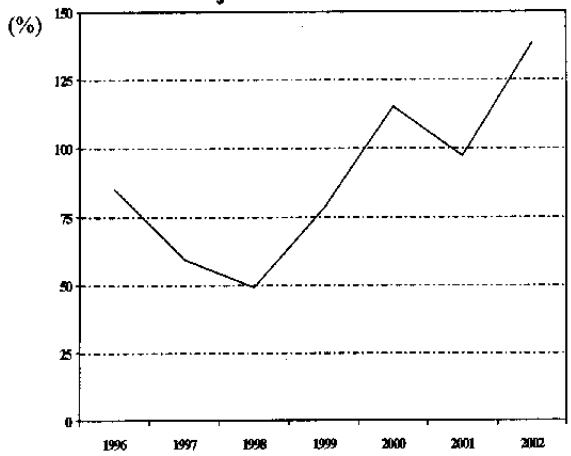
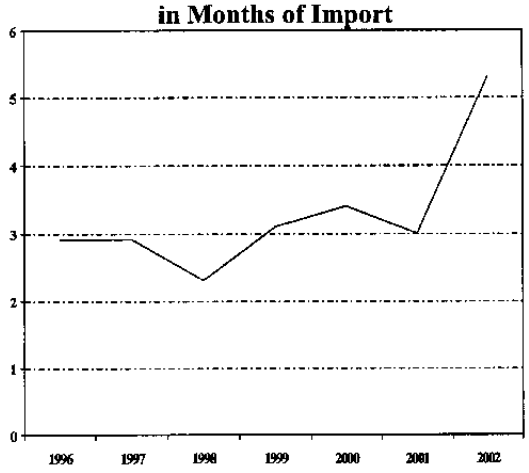


Figure 17: Reserves in Months of Import



[15] For instance, a depreciation of the exchange rate would not by itself trigger a wide-ranging crisis, as the effects on foreign currency-denominated debt, which is largely concentrated in the export sector, would be offset by export proceeds. Moreover, the central bank would likely intervene to limit the extent of the depreciation. Similarly, a moderate increase in interest rates would affect the currently sound profitability of the private sector but is unlikely to cause substantial financial distress. Also, a sudden change in market sentiment, which could lead to a reversal in capital flows, would not substantially affect the external position nor the financing ability of firms, as two-third of the short-term debt is related to trade credits, part of which among affiliated companies.

enterprises in a complicated financial situation, with possible spillovers to the banking sector. However, stress testing exercises suggested that, in the case of interest rate and exchange rate shocks, systemic distress only occurs at relatively large shock levels, while banks can weather significant credit shocks due to their high levels of capitalization. Moreover, as already noted, the high level of international reserves, compared with the amount of debt falling due, should help mitigate the effects of capital movements on the exchange rate.

D. Conclusions

31. ***The deterioration of the current account balance stems from a combination of factors, some of them exogenous and temporary, and others of a structural nature.*** Once the temporary factors are netted out, the current account deficit remains large, reflecting structural developments related to the ongoing transition and convergence processes, including buoyant investment demand and a surge in consumer goods imports. Macroeconomic policies also contributed to the widening of the external deficit in 2001.

32. ***A broad range of indicators show no evidence that Slovakia's external imbalances reflect cost-competitiveness problems, although further restructuring in the corporate sector is still needed.*** Despite the substantial restructuring that already occurred in the corporate sector, some domestic firms have difficulties competing with imported goods, indicating the need for these enterprises to adapt their production to the evolving demand and reassess their strategic positioning in an environment that is increasingly integrated to the global economy. It underscores also the need for further restructuring in order to preserve competitiveness. The unfinished transformation of the corporate sector and the difficulties of many enterprises to adjust to the new environment have increased the reliance of the economy on imported goods, contributing to the wider external current account deficit.

33. ***The present size of the current account deficit is difficult to sustain, although this deficit should start to narrow in the period ahead.*** The estimates presented here indicate that an external current account deficit of some 6–7 percent of GDP would be sustainable over the coming years—somewhat below its present level. The deficit should start to narrow in the period ahead, led by export growth as demand recovers in Europe. Moreover, the recent investment boom is creating higher export capacity and promoting import substitution, strengthening the supply-side response. Even so, policy adjustments may still be needed to bring the deficit back within the sustainable range.

34. ***Near-term vulnerability is low, but this will be sustained only if the external deficit starts to narrow.*** The recent series of large privatizations has allowed for a substantial run-up in international reserves, sharply reducing vulnerability. But although the Slovak economy should be resilient to isolated shocks, a combination of adverse developments could still threaten the private sector. In particular, such a combination—for example, high interest rates and a depreciated exchange rate—would be more likely if the external current account deficit remains high. This underscores the need to address macroeconomic imbalances and for a broad consensus supporting the "adjustment" variant for policies in the period ahead.

II. Pension Reform in the Slovak Republic[1]

A. Introduction

1. ***Like many other OECD countries, Slovakia faces substantial fiscal risks—in particular to the pension system—from the aging of the population in coming decades.*** Demographic projections show low birth rates and significant increases in life expectancy resulting in a doubling in dependency ratios by 2040. For a pay-as-you-go (PAYG) system, this implies a need for some combination of lower replacement rates, higher retirement ages and higher contributions to restore sustainability—and contribution rates in Slovakia are already among the highest in the OECD.

2. ***Pension reform is in its early stages in Slovakia.*** In 1999 the government announced plans to introduce a three-pillar reformed pension system. Two of the three pillars—the public PAYG system (first pillar), and a voluntary, fully funded supplementary pension system (third pillar)—are in place, and Parliament approved significant changes to the first pillar in May 2002. However, the mandatory, fully funded (second) pillar remains at the planning stage.

3. ***This paper argues that the present reform program goes some of the way towards placing the pension system on a sustainable footing, but further measures will be needed.*** The paper is organized as follows. Section B reviews the current pension system and its performance in the 1990s, following its separation from the Czechoslovak system, and early reforms. Section C outlines the authorities' reform plans as envisaged in their Pre-Accession Economic Program, and the recently approved reform of the first pillar, which reflects a blend of reforms in other advanced transition economies. Section D discusses the implications of the current round of reforms for the long-run sustainability of the pension system, the medium-term implications of the introduction of the second pillar, and the next steps for reform. Section E concludes.

B. The Current Pension System and the Need for Reform

Overview

4. ***The public PAYG pension system has generated small but increasing deficits over the past decade.*** The pension fund was balanced or ran modest surpluses in the mid-1990s, but by 1999 was running a deficit of 0.7 percent of GDP (see Table 1). This deterioration has come on the contribution side: pension expenditures have been stable at around 7½ percent of GDP over the past decade, but revenues have fallen from around 8 percent of GDP in the mid-1990s to around 7 percent of GDP now (see Table 2). The deterioration in contributions has reflected mainly weaker employment conditions in recent years, as well as subdued wage

[1] Prepared by David Moore.

growth. A further factor underlying the deterioration in contributions was a period of nonpayment of contributions by some key large public enterprises.[2]

5. ***The state budget has covered an increasing share of the recent deficits of the Social Insurance Agency (Sociálna Poisťovňa, or SIA).*** In the years up to 2000, the state budget provided around Sk 1 billion in annual transfers to the SIA. But in 2001, state budget support for old-age pensions was increased to Sk 3.7 billion, and the 2002 budget provides for a corresponding transfer of Sk 6.7 billion. The state budget has provided a further Sk 1 billion in both 2001 and in the 2002 budget for sickness benefits. Aside from the state budget, public money from the National Property Fund has also been used in 2001 and 2002 to finance repayment of arrears of public enterprises to the SIA.

6. ***Even allowing for some improvement in the financial condition of the pension system over the next few years, the long-term outlook is worrying.*** The current pickup in wages and employment suggests there is scope for some near-term recovery in contributions. But the aging of the population poses serious longer-term challenges. Demographic projections prepared by the Ministry of Labor, Family and Social Affairs (MLSAF) show a steady increase in life expectancy and a gradual decline in the Slovak population from 2010 (see Table 3), implying a doubling in the old-age dependency ratio by 2040. Figure 1 shows MLSAF projections of the long-term evolution of the demographic support ratio (the inverse of the dependency ratio) under different retirement age assumptions.

7. ***The MLSAF estimates that, if unchanged, the current system would run steadily increasing deficits reaching around 6 percent of GDP by 2050.*** The deficits would arise both from lower contributions (as a share of GDP) because of the shrinking labor force, as well as from higher pension expenditures (Figure 2). For a PAYG system, restoring sustainability implies a need for some combination of lower replacement rates, higher retirement ages and higher contributions.

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[2] The railways were a leading nonpayer to the social security funds in the mid- to late 1990s. Agreement was later reached for the railways to reimburse the social security funds (using privatization receipts transferred from the National Property Fund to repay old debts); in 2000 these repayments accounted for Sk 6 billion of contributions to the Social Insurance Agency—and for practically all of the improvement in reported revenues that year.

Figure 1. Demographic Support Ratio

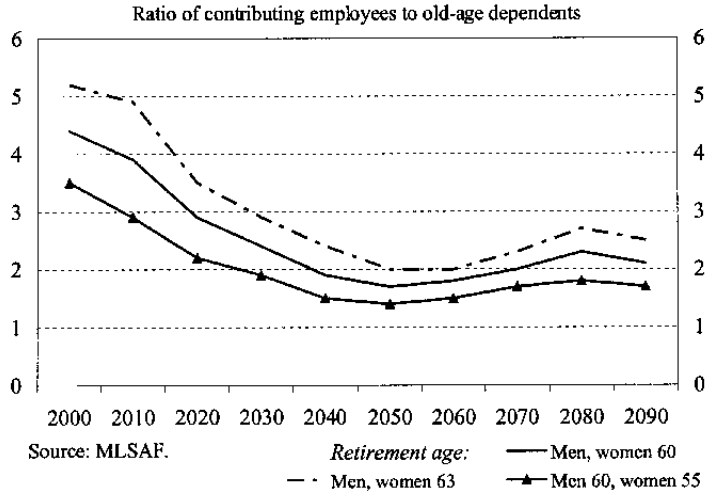
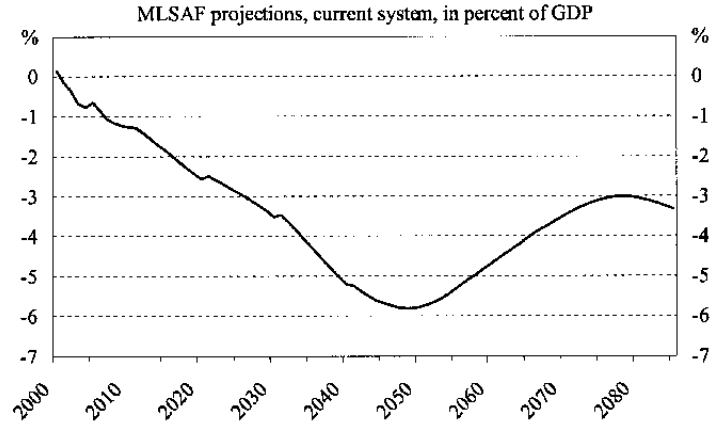


Figure 2. Long-Run Balance of the Pension System



8. ***Pension contributions are currently 28 percent of gross income, among the highest in the OECD.*** The total comprises employer contributions of 21.6 percent, and employee contributions of 6.4 percent. Contributions are normally limited to a ceiling set at eight times the minimum wage, though this ceiling is not always adjusted to reflect increases in the minimum wage. Since January 1, 2000, the maximum monthly assessment base has been set at Sk 32,000.[3] Contribution rates in Slovakia are among the highest in the OECD, especially after including other social insurance taxes, although comparable to those in other advanced transition economies (Box 1; see Table 4).

[3] This ceiling was based on a minimum wage of Sk 4,000. However, although the minimum wage was increased to Sk 4,920 in October 2001, the maximum assessment base has remained unchanged.

Box 1: Payroll Taxes in Slovakia

Old-age pensions account for just over half of total social security contributions. Including health and unemployment insurance contributions, payroll taxes in Slovakia currently total 50.8 percent of gross wages, as follows:

	Pension	Disability	Health	Unemployment	Total
Employee (%)	6.4	1.4	4.0	1.0	12.8
Employer (%)	21.6	3.4	10.0	3.0	38.0
Total (%)	28.0	4.8	14.0	4.0	50.8

Slovakia's social insurance contribution rates are high by OECD standards, though comparable with those in other advanced transition economies, including the Czech Republic (48.5 percent), Hungary (44.3 percent), and Poland (48.0 percent). By comparison, the average contribution rate in EU countries is 37 percent, of which 23 percent is for pensions (see Table 4).

9. ***The current benefit formula is extremely redistributive and distorts labor market incentives.*** Assuming no special privileges, all contributors with income above Sk 10,000—and economy-wide average monthly wages are now above Sk 12,000—retire on the same monthly pension of Sk 6,395 (Box 2). For an employee earning the economy-wide average, this implies a replacement rate of just over 50 percent; for an employee earning up to the contribution ceiling of Sk 32,000, the replacement rate is around 20 percent. However, an employee insured for 42 years and earning the minimum wage would retire on a monthly pension exceeding previous earnings—strengthening incentives for early retirement.

10. ***Retirement ages are low, especially for women.*** The statutory retirement age for men is 60; for women, the retirement age is 57, or one year earlier for each child up to the fourth child, hence as early as 53. These retirement ages are quite low by OECD standards; 65 is the usual statutory retirement age (see Table 5). However, according to MLSAF staff, actual retirement ages in Slovakia much closer to the statutory ages than in most other OECD countries, where actual average retirement ages may be several years less than the statutory retirement ages.

Early reforms

11. ***Following separation from the Czech Republic, early reforms gave priority to clarifying the institutional framework for social security provision.*** The Social Insurance Act of 1994 established the SIA as the provider of pension and disability insurance, carving it out of the former National Insurance Agency which had also administered health benefits.

Box 2: Current Benefits

Pension benefits under the existing system are based on "reduced" late-career earnings. A full pension is paid after 25 years insurance, based on 50 percent of reduced average earnings during the highest five of the last ten years in employment. A further 1 percent of reduced average earnings is paid for each year of employment between 26 and 42 years. The following marginal reduction scale (unchanged since 1988) applies to average monthly earnings:

Sk 0 – Sk 2,500	no reduction
Sk 2,501 – Sk 5,999	two-thirds reduction
Sk 6,000 – Sk 9,999	90 percent reduction
Sk 10,000 and above	100 percent reduction

The scale implies maximum reduced monthly earnings of Sk 4,067. The unadjusted monthly benefit for a worker employed for 42 years would be 67 percent of this amount, i.e. Sk 2,725. Parliament has increased pensions annually, such that in 2002, the actual monthly pension is given by the unadjusted benefit multiplied by 1.905, plus Sk 1,204. This implies a standard maximum monthly pension of Sk 6,395. The current law also provides for pension privileges for numerous groups, in some cases implying (unadjusted) pensions of 100 percent of the reduced wage. The current maximum monthly pension for all pensioners is Sk 8,282.

12. ***Voluntary pension insurance was introduced in 1996.***[4] There are now four supplementary insurance companies with Sk 5–6 billion in assets covering around 300,000 participants. The third pillar was initially open to employees only; in 1999 self-employed workers were given the right to participate as well. Participation in the third pillar has been less than originally expected, perhaps reflecting a lack of transparency in the operations of the supplementary insurance companies and their managed funds.

13. ***Employee contribution rates were increased in 2001.*** As a step towards addressing the growing imbalances of the social security funds, the government increased the employee contribution rate for pensions from 5.9 percent to 6.4 percent, effective January 2001; health insurance contributions were also raised from 3.7 percent to 4 percent.

C. The Government's Current Pension Reform Strategy

Overview

14. ***Early in its term, the current government adopted the objective of introducing a three-pillar pension system.*** The MLSAF (1999) outlined a three-pillar system with two compulsory pillars and one voluntary pillar:

[4] The accompanying Financial System Stability Assessment document reviews the third-pillar supplementary pension insurance companies in Slovakia.

- *First pillar:* a compulsory PAYG pillar financed as in the existing system, providing basic pensions;
- *Second pillar:* a compulsory, fully funded pillar with individual accounts, operated by the SIA and with principal (adjusted for inflation) guaranteed by the state, but asset management subcontracted to managers of the insured person's choice; and
- *Third pillar:* a voluntary, private, fully funded pillar.

The concept assumed the first two pillars would replace about 50–55 percent of *gross* real income, though with a ceiling of about three times the economy-wide average wage; the third pillar would replace 20–25 percent of *net* earnings without a ceiling.

15. ***The government's 2001–2002 Staff-Monitored Program with the Fund included two structural benchmarks on pension reform:***

- The first benchmark, for June 2001, envisaged government approval of a gradual increase of the retirement age. The benchmark was eventually met in October 2001 with government approval of a timetable for increasing the retirement age to 60 for all women by 2018; the government later agreed to extend the transition period to 2026.
- The second benchmark, for March 2002, envisaged government approval of a comprehensive model for the introduction of a three-pillar pension system. This benchmark has been delayed owing to the need for technical assistance to help design and implement the second pillar.

16. ***Reform of the first pillar has moved ahead but important decisions remain pending on the design of the second pillar.*** Parliament recently approved the new Social Insurance Act, which reforms the PAYG system. Turning to the second pillar, the government has yet to decide on its size or institutional framework, but has already set aside privatization receipts to finance the transition costs arising from the diversion of contributions from the first pillar.

17. ***A World Bank-assisted project to support these reforms, and other improvements in the social protection system, is also pending.*** The Bank approved the Social Benefits Reform Administration project (SBRA) in February 2002. The project will provide technical assistance to help design the second pillar; improve the collection and administration of social security contributions, with a single agency collecting for the SIA and National Labor Office (NLO); and support capacity building at the MLSAF, SIA and NLO. The government has yet to complete the steps needed for disbursement of the SBRA loan.

18. ***The move to a three-pillar pension system in Slovakia follows the recent introduction of multi-pillar systems in several other advanced transition economies.*** The reform of the first pillar in Slovakia reflects a blend of reforms in several other countries, including Latvia, Poland and Hungary. Progress to date in introducing the second pillar in the advanced transition countries has been more mixed (Box 3).

Box 3: Lessons from Other EU Accession Countries

The move to a three-pillar pension system in Slovakia follows the recent introduction of multi-pillar systems in several other advanced transition economies. The recent experiences of Latvia, Poland and Hungary are particularly instructive.[1] Latvia in 1995 was the first transition economy to introduce a notional defined-contribution (NDC) system to reform the PAYG first pillar, though progress since in introducing its second pillar has been slower. Hungary launched a multi-pillar pension system in 1997, though it has recently backed away from some of the second-pillar reforms. Poland introduced a multi-pillar system in 1999, like Latvia reforming its PAYG pillar along NDC lines.

The reform of the first pillar in Slovakia reflects a blend of reforms elsewhere. The approved Slovak personal wage point system, though still defined-benefit PAYG, shares a number of features with the NDC systems in Latvia and Poland (Box 4). The continuing broad role for the first pillar in providing basic incomes, rather than a more specific focus on poverty relief, also remains in reformed first pillars in other transition economies. Although Latvia introduced the NDC system to tighten the benefit-contribution link, it also retains a minimum pension guarantee within the first pillar. On the other hand, Hungary and Poland—now followed by Slovakia—have abolished minimum pensions and provide a minimum income from outside the pension system.

Comprehensive approaches linking reform of the first pillar to the introduction of the second seem to have advantages over more piecemeal reforms—on balance. Comprehensive reforms allow for changes to first-pillar benefits to mesh with the second pillar, improving their design. Also, given the continuing role of reformed first pillars in providing basic pensions, some policymakers may come to perceive the introduction of the second pillar as less urgent. Fox and Palmer (1999) argue that the introduction of the second pillar in Latvia suffered from being left until after the first pillar; the Latvian second pillar started operations in 2001, six years after the reform of the first pillar. In Poland, the reformed first pillar and the new second pillar were implemented simultaneously, allowing for their close integration (Góra, 2001). On the other hand, the comprehensive reform in Hungary has gone less smoothly. Following the 1997 reform that both modified the PAYG pillar and launched the second pillar, in late 2001 the government reversed several features of the initial second-pillar reform, including keeping the contribution rate below envisaged levels, and eliminating its mandatory coverage and minimum guarantee.

The transition costs of introducing funded pillars have complicated implementation in some countries. Latvia is spreading the transition costs over a longer time frame by phasing in its second pillar. The fully funded pillar was introduced in 2001 with an initial contribution rate of 2 percent; the contribution rate will rise to at least 4 percent in 2007, and reach 10 percent from 2010 (Schiff et al., 2000). In Hungary, concerns that the transition costs would increase the difficulty of meeting the Maastricht fiscal deficit criterion may have contributed to the recent stalling of the second-pillar reform (Wagner, 2002).

But other countries have moved more ambitiously than Slovakia to increase retirement ages, despite considerable opposition. In Latvia, retirement ages will be equalized at 62, up from 60 for men and 57½ (with the option of early retirement at 55) for women. The originally approved timetable for retirement age increases was slowed after opposition forced a national referendum; the revised timetable now provides for the retirement age to increase annually by six months until it reaches 62 for both men and women. In Poland, the original reform proposal to increase retirement ages to 62 for both men and women also proved controversial; the eventual law increased the retirement age for women from 55 to 60, and for men from 59 to 65. In Hungary, a retirement age of 62 for both men and women will be fully phased in by 2009. The Czech Republic, which formerly had the same retirement ages as Slovakia, is phasing in higher retirement ages for men from 60 to 62 years, and for women from 53-57 to 57-61 years, to be completed by 2007 (Laursen, 2000).

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[1] Fox and Palmer (1999) and Schiff et al. (2000) review the pension reforms in Latvia. Rocha and Vittas (2001) assess the implementation of the pension reform in Hungary, and Chlon et al. (1999) outline the pension reform strategy in Poland.

Reforming the first pillar: the 2002 Social Insurance Act

19. ***Parliament approved the new Social Insurance Act in May 2002.*** The Act reforms the first pillar by raising the retirement age for women and tightening the link between benefits and contributions. The Act becomes effective in July 2003. Its main features are:

- The Act equalizes the ***retirement age at 60*** for both men and women. In response to opposition to a (previously approved) shorter transition period, the approved transition period will last until 2017 for childless women and until 2026 for women with four children.
- Social insurance will ***cover only those benefits that replace previous earned income.*** Accordingly, the SIA will pay sickness/disability benefits, accident benefits and pension benefits. It will not pay the "non-systemic" benefits from the previous system, including the minimum pension and wife's pension; these would instead be covered by state benefits (paid by the state budget). A range of special pension privileges are also cancelled.
- The Act ***introduces "personal wage development points"*** to tighten the link between benefits and contributions. Points will be earned in each year of employment, so that benefits will reflect lifetime earnings and not just earnings in the final years of employment. Although the new points scheme will remain defined-benefit (DB), it has much in common with the notional defined-contribution (NDC) systems introduced in some other European countries (Box 4).
- Regarding the personal wage point system, for which a "wage point" is the ratio of the employee's wage to the economy-wide average wage in a given year of employment, ***the new system will continue to apply a reduction scheme.*** For wages less than 1.25 times the economy-wide average, the employee will receive full wage point credit; between 1.25 and 2 times the economy-wide average, one-third wage credit; and zero for more than 2 times the economy-wide average. For example, an employee earning 1.55 times the economy-wide average would be credited with 1.35 wage points.
- Workers with 40 points, equivalent to 40 years earning an economy-wide average wage, will receive a pension upon retirement equal to 50 percent of the economy-wide average wage. Pensions will be increased every July 1 by the *lower* of the increase in the CPI and the increase in the economy-wide average wage over the previous twelve months.[5]
- Unemployed workers, whose premia are paid by the NLO, earn wage points at an annual rate of 0.3 points. Women receive 0.5 points for a childcare period.

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[5] The provision for automatic indexation contrasts with the current system in which the parliament must approve pension increases. However, this provision will not apply until 2004; Parliament will still have to approve the indexation increase in 2003.

Box 4: The Slovak Reform and Notional Defined-Contribution Schemes

The reformed Slovak PAYG pension system will remain defined-benefit (DB), but with several key characteristics of the notional defined-contribution (NDC) or "notional accounts" systems introduced in several European countries, including Latvia, Sweden, Italy and Poland.

- The reformed Slovak PAYG system and NDC systems record wage points or pension contributions over an employee's working life in individual accounts. These accounts then represent individual claims on future public resources.
- The resulting benefit-contribution link is generally less than one-to-one—the systems typically include some redistributive element, such as a minimum pension (Latvia) or a reduced-earnings scheme (Slovakia). But the link is tighter than in the unreformed PAYG systems that base benefits on income in the final year or years of employment.
- The reformed Slovak system will record "personal wage points" for conversion to pension income upon retirement, based on the prevailing economy-wide average wage. Hence, the system remains DB.
- NDC systems record individual contributions, which earn "notional" rates of return. This rate of return is typically set at the growth rate in the covered wage bill. Hence, although these systems are unfunded, they still operate on defined-contribution (DC) principles.
- Despite the apparent DB-(N)DC distinction, there is an underlying equivalence to these systems. In the Slovak system, basing pensions on economy-wide average wages at the time of retirement implies an implicit rate of return equal to wage growth. This is equivalent to an explicit but notional rate of return based on wage growth in an NDC system.

NDC systems remain somewhat controversial. Fox and Palmer (1999) argue that NDC systems are more transparent because the actuarial indexation and benefit calculations of the PAYG system are made explicit. Disney (1999) argues that notional accounts systems are effectively identical to well-designed PAYG systems, but *lack* transparency because of the complexity of the actuarial calculations. On this criterion, the reformed Slovak PAYG system may be more easily understood by the public, to the extent that the role of wage growth in determining pensions is clearer than in systems that use a notional rate of return as an extra intermediate step in the pension calculation.

- The corollary of the tighter link between benefits and contributions is a ***reduction in the degree of redistribution***. The proposed system, while still redistributive, does envisage significantly reduced pensions for newly retiring lower-income earners. The Act includes a three-year transitional period under which new benefits would be no lower than under current law.
- ***The reformed first pillar relies on the state budget to provide a safety net for lowest-income retirees.*** The new benefit formula would yield some pensions significantly below the subsistence level, particularly for women on low incomes who retire early. In these instances, the state budget will top up pensions to cover subsistence.
- ***The new benefit formula results in higher* new *pensions, at least during the three-year transition period, but the additional costs should be modest.*** The MLSAF estimates higher spending on new pensions by 20 percent in the first year of the new system, by 18 percent in the second year, and by 16 percent in the third. With annual spending on new pensions of around Sk 2.5 billion, the cost of new benefits in the

first year would be Sk 500 million; the additional cost in 2003 would be only Sk 250 million because the law would apply only in the second half of the year.

- ***Social insurance contributions remain unchanged***, both in terms of the rate (28 percent) and the maximum monthly assessment base (Sk 32,000). Parliament rejected a provision in the draft act to raise the maximum assessment base to 3.25 times the average wage.[6]

- Parliament also approved an amendment reducing ***employees' contributions by 0.5 percent per child***, with an annual cost to the SIA of Sk 750 million. However, there is also a deduction of 0.5 personal wage points when the benefit is received.

- A further amendment reallocates the costs of spa care from the health system to the pension system. The annual cost to the SIA is estimated at Sk 650–700 million.

Introducing the second pillar: plans and provisions

20. ***The Board of Economic Ministers is now considering two alternatives for the institutional framework for the second pillar.*** Under the first alternative, an independent unit of the SIA would be responsible for the collection, payout, and management of accounts, while private asset managers will manage the funds. Under the second, the SIA would be responsible for collecting contributions, but private managers would undertake all remaining functions. In either case, the Financial Market Authority would be responsible for licensing and supervision. With parliamentary elections scheduled for September 2002, it is likely that the final decision on the institutional framework will fall to the next government. Nevertheless, MLSAF staff are optimistic that preparatory work could be completed in the first half of 2003 and that the second pillar could be functioning by January 2004.

21. ***Privatization receipts have been set aside to finance the transition costs associated with the introduction of the second pillar.*** In early 2002, the government allocated Sk 65 billion (over 6 percent of GDP) for the pension reform following the successful sale of a 49 percent stake in the gas company SPP. These funds have been deposited with the National Bank of Slovakia (NBS) and interest will accrue in this account. With an average rate of return of 6 percent, these funds should be sufficient to finance the estimated Sk 75 billion transition costs[7] of the second pillar.

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[6] This would have implied a maximum assessment base of some Sk 45,000 per month, representing a large tax increase for upper and especially upper-middle income earners, and their employers. The MLSAF estimates the revenue impact of the parliament's decision to be quite small in the near term, because only about 2–3 percent of employees earn more than the maximum assessment base. In the longer term, the MLSAF's baseline projections are annual losses equivalent to around 2 percent of contributions.

[7] This refers to the sum of current-price flows, rather than net present value.

22. ***The government has yet to decide on the size of the second pillar, but it is likely to start with a contribution rate of 3.7 percent of gross income.*** The government plans to expand the second pillar gradually. MLSAF staff expect the second pillar to start with a contribution rate of 3.7 percent, and envisage an eventual rise to 6 percent. Participation is expected to be mandatory for employees below 40 years of age, and optional for employees aged between 40 and 50; the second pillar would be closed to employees aged over 50.

23. ***The initial annual transition costs could be around 1 percentage point of GDP.*** MLSAF estimates of the transition costs are quite high—Sk 15 billion in 2004, falling to Sk 10-11 billion over 2005–07 and starting to taper off thereafter. However, these costs include not only the cost of diverting 3.7 percent of contributions to the second pillar, but also the projected deficit of the first pillar under no reform (assumed to be Sk 4 billion in 2004), plus administrative costs, currently equivalent to 3.5 percent of the revenues of the first pillar. The funds at the NBS will be used exclusively to compensate for the diversion of contributions to the second pillar, and will not fund second-pillar administrative costs.[8]

D. Assessing the Reform So Far

24. This section discusses the implications of the reforms for the long-run sustainability of the pension system, the medium-term implications of the introduction of the second pillar, and the next steps in the reform process.

The long term: sustainability

25. ***The first pillar reform significantly reduces the long-term imbalance of the SIA, but does not in itself ensure financial sustainability (Figure 3).*** The MLSAF estimates that the approved reform results in the deficit of the SIA reaching 2 percent of GDP by 2050, compared with a deficit of 6 percent of GDP under the current system. The lower deficit is achieved by containing expenditures, through increases in the retirement age and (effectively) limiting growth in pensions to inflation. Figure 3 also shows scenarios with varying retirement ages: assuming the present reform without changes in the retirement age, the deficit would reach 3 percent of GDP by 2050; with the retirement age at 63, the deficit would reach 1–1½ percent of GDP by 2050.

26. ***The indexation mechanism is a major factor constraining future expenditures, and should also reduce incentives for early retirement.*** As noted earlier, pensions will be adjusted annually by the lower of the increase in the CPI and in economy-wide average wages. Assuming positive real wage growth in most years implies, for practical purposes, CPI-indexation. This is the cheapest form of indexation from the fiscal point of view; the MLSAF estimates that indexing pensions by the increase in wages would imply an additional

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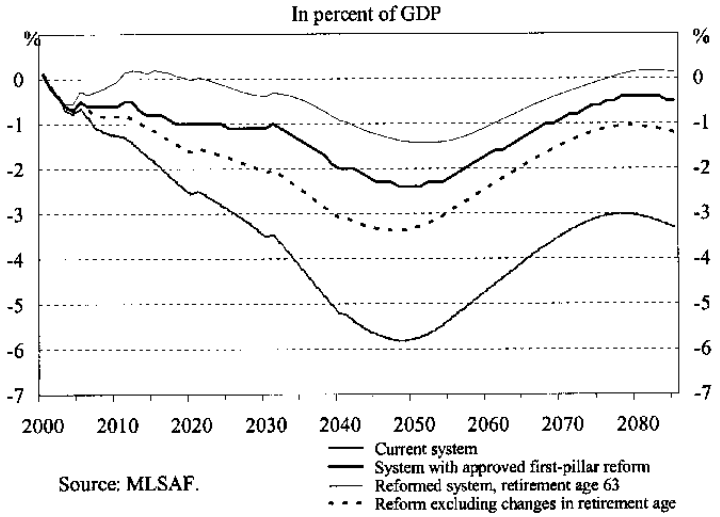
[8] These costs are estimated at about 0.3 percent of assets and include, for example, setting up client accounts.

Figure 3. Long-Run Balance of the Pension System



Source: MLSAF.

deficit of 1.3 percentage points of GDP by 2085. Moreover, at the time of retirement, points are converted to a pension based on prevailing economy-wide wages. Hence, assuming positive real wage growth in the long run, then the implicit pre-retirement rate of return on accumulating pensions exceeds the post-retirement growth of pensions, creating incentives to delay retirement.

27. ***The tighter link between benefits and contributions should mitigate labor market distortions.*** The shift to basing pensions on lifetime contributions, instead of salaries in the final ten years, tightens the link between benefits and contributions, albeit partially because of the continuing redistributive function of the reduction scheme. The tighter benefit-contribution link should promote participation in the formal sector to the extent that employees see social security contributions more as insurance premia and less as taxes.

28. ***Although the MLSAF analysis projects a balanced system in the long run after the inclusion of the second pillar, risks to these projections appear skewed to the downside:***

- ***The imbalance in the system may be greater if life expectancy increases more rapidly than projected by the MLSAF.*** The United Nations projects that by 2050, life expectancy for Slovak men will reach 76.6 years, compared with 71.6 years in the MLSAF projections; and for women to reach 82.4 years, compared with 80.3 years in the MLSAF projections (see Table 6). Without taking a view on which of the two sets of demographic projections is better, risks to dependency ratios may be to the upside. More pertinently, the lack of a mechanism to cope with increases in life expectancy leaves the system still open to demographic risk.
- ***The new indexation mechanism may be subject to political risk.*** Because pensions will be maintained in real terms but not increased, political pressures could emerge in the medium term for indexation reflecting wage growth as well as inflation, for example so-called "Swiss" indexation that gives 50 percent weight to wage growth

and 50 percent to inflation. This could increase the deficit of the SIA by ½-¾ percentage points of GDP compared with the approved reform.

- ***More work is needed to quantify the impact of the reform on the state budget.*** The MLSAF quantification of the reform provides little information on the projected impact on the state budget beyond the medium term. Because of the abolition of the minimum pension and other nonsystemic pensions (such as wife pensions), some pensions will be below subsistence levels—particularly for women on low incomes who retire early—and will need to be topped up by the state budget. According to MLSAF staff, the effect on the state budget will be small, and the state budget already provides some top-up income support; but more information is needed to analyze the impact of the reform on the state budget as well as on the pension system.

The medium term: transition costs, and next steps

29. ***In general, the transition costs associated with the introduction of a funded second pillar need not imply a loosening of the fiscal stance, depending on the implications for private savings.*** Mackenzie et al. (2001) observe that, under certain conditions, a shift to a second pillar can leave the fiscal stance unchanged, because the payroll taxes formerly collected by the public social insurance scheme are transformed into the surpluses of the private sector pension funds. In other words, the higher fiscal deficit is offset by higher private saving, and national saving is unchanged. However, Mackenzie et al. further note that an individual accounts reform that addresses the aging problem without new incentives to increase private saving would loosen the fiscal stance and hence require offsetting fiscal measures.

30. ***But in the case of Slovakia, the government would still need to take fiscal measures to offset the transition costs in order to meet its other medium-term objectives, including adoption of the euro.*** The government recently announced its intention to meet the Maastricht fiscal deficit criterion, that is, reduce the fiscal deficit to below 3 percent of GDP on an ESA95 basis, by 2006. Annual transition costs of around 1 percent of GDP will clearly add to the challenges in meeting the deficit criterion—these costs still increase the fiscal deficit[9], even though the funds have been allocated to finance them. It is therefore critical that the staffs of the MLSAF and the Ministry of Finance collaborate closely in designing the next stages of the pension reform, and that the medium-term costs of pension reform are fully incorporated into Slovakia's medium-term fiscal framework.

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[9] If the second pillar is public, diverted contributions remain within the consolidated general government, that is, the diversion of contributions does not increase the fiscal deficit. Other EU accession countries are currently discussing with Eurostat the possibility of including the private second-pillar pension insurance companies as part of general government, for the purposes of the Maastricht fiscal deficit and debt criteria.

31. ***The shift to funded pensions is not in itself a panacea for the demographic problem but can facilitate adjustment, as well as promoting old-age income security by diversifying risks and assisting the development of Slovak capital markets.*** Rates of return on funded pensions are still subject to demographic pressures; declines in labor force growth could be associated with falling returns to capital.[10] Disney (2000) argues that funding exchanges the potential political risk of unfunded systems for potential investment risk. To the extent that these risks are uncorrelated, however, old-age income security is enhanced by diversifying the sources of retirement income to include both PAYG and funded pensions. Funded pension systems may also have political economy advantages, being self-adjusting to shocks and avoiding locking in the unsustainable benefit entitlements that can arise in PAYG systems. Moreover, through their role as institutional investors, private pension funds help to deepen capital markets. The second pillar will make an important contribution to this process, especially in view of the limited growth to date in the third pillar.

32. ***The envisaged private management of second-pillar assets should protect against political interference.*** Private management of second-pillar assets is still controversial—as indeed are individual accounts—in particular because of higher administrative costs (see, for example, Orzsag and Stiglitz, 2001). But public pension funds may be subject to more restrictions, or pressures to direct investments according to social and political objectives, that lower rates of return compared with private funds (Holzmann and Palacios, 2001).

33. ***Moving forward with the introduction of the second pillar in Slovakia requires considerable further analytical and logistical work, with World Bank assistance.*** As noted above, the government is yet to approve the institutional framework for the second pillar, but has decided on private management of second pillar funds. At a more technical level, the authorities still need to conduct a variety of simulations with regard to alternative second-pillar contribution rates, retirement ages, phase-in periods, and choice mechanisms. Technical assistance with the simulations is available through the World Bank SBRA project. The SBRA will also support the administrative reforms—improving collections, and building capacity, including for management of individual accounts—needed for the successful introduction of the second pillar.

34. ***The authorities will also have to revisit measures in the medium term to ensure the longer-run sustainability of the first pillar.*** Barr (2000) observes that for countries with large, unsustainable PAYG systems, the only choice is to make the PAYG system sustainable, despite any partial shift towards private, funded arrangements. In turn, sustainability of the PAYG system can only be achieved by some combination of higher contributions and lower benefits.

35. ***There is limited room to move on the contribution side.*** As discussed earlier, contribution rates are already very high in Slovakia and there is no apparent room to increase them. In this light, the SBRA reforms to improve the collections system are critical. As also

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[10] See for example Heller (1998).

noted, the parliament has rejected the recent proposal to increase (significantly) the maximum assessment base for contributions to 3.25 times the average wage. The revenue effect of this measure would have been modest, because only 2-3 percent of employees would have been affected (though the cost to these employees would have been large). However, there is a clear case for indexing the maximum assessment base—preferably by wage growth, in line with the implicit rate of return on contributions.

36. ***Measures will have to come mostly on the benefit side.*** The most feasible option may be to make benefits less generous through further increases in retirement ages.[11] Unlike the NDC systems in some other transition economies, the reformed Slovak system does not include a mechanism to adjust benefits according to unexpected increases in life expectancy. Moreover, the recently approved increases in retirement ages for women will roughly cover the projected increases in female life expectancy over the next three decades; but the projected increase in male life expectancy is greater, and not yet matched by any increase in the retirement age for men.

37. ***Sustainability can best be achieved if pension reform is supporting economic growth.*** Output is the key variable in a context of demographic problems; lower replacement rates are consistent with old-age income security if the economy continues to grow. Thus, one of the questions for pension policy is how the reformed system can best support economic growth—highlighting the importance of reforms that not only address sustainability directly, but also reduce labor market distortions, deepen capital markets, or promote national saving.[12]

E. Conclusions

38. ***The recently approved Social Insurance Act represents a first step towards putting the pension system on a sustainable footing.*** The Act should help reduce both the long-run deficit of the PAYG system, and labor market distortions: the new indexation arrangements should help contain expenditures in the long run, and the tighter link between benefits and contributions should encourage participation in the formal sector.

39. ***The introduction of the second pillar will come with a significant medium-term price tag—but the price is worth paying.*** Although the necessary funds have already been

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[11] Explaining the case for increases in retirement ages is a difficult task, but has been done elsewhere. Bütler (2001) reviews the political economy of a single-issue Swiss referendum in 1998 to *block* an approved increase in the retirement age for women from 62 to 64; the referendum was defeated by a 60 percent majority.

[12] See for example Barr (2000). Barr notes that the impact of funding on economic growth remains highly controversial; there is empirical evidence that funding contributes to higher savings in the United States but evidence for other countries is not robust.

set aside to finance the transition costs from diverting contributions to the second pillar, these transition costs could still increase the fiscal deficit by up to 1 percent of GDP annually in the medium term. Nevertheless, the introduction of the second pillar—while not a panacea for the demographic problem—will allow a partial shift away from the still-unsustainable first pillar, diversify retirement incomes, and contribute to capital market development. It is therefore critical that the staffs of the Ministry of Labor and the Ministry of Finance collaborate closely in designing the next stages of the pension reform, and that the medium-term costs of pension reform are fully incorporated into Slovakia's medium-term fiscal framework. Also, the recently approved World Bank project offers technical assistance with the design of the second pillar, and will support the administrative reforms needed for its successful introduction.

40. ***Further steps will still be needed to ensure the sustainability of the pension system.*** Some measures should be relatively painless, such as indexing the maximum assessment base for contributions. Others measures, such as further increases in the retirement age, would clearly be more difficult. But even after the approved increases in the retirement age for women, retirement ages will still be well below those in most OECD countries—which are facing serious sustainability problems in their own pension systems.

Table 1. Slovak Republic: Developments in Key Pension System Indicators, 1993-2001

	1993	1994	1995	1996	1997	1998	1999	2000	2001
DEPENDENCY RATIO									
Number of old-age pensioners (thousands)	553	556	558	561	567	573	585	587	...
Number of contributors (thousands)	2,060	1,999	2,048	2,149	2,135	2,200	2,102	2,057	...
Old-age dependency ratio (percent)	26.8	27.8	27.2	26.1	26.6	26.0	27.8	28.5	...
Number of other pensioners (thousands)	619	622	615	612	610	612	614	616	...
Total number of pensioners (thousands)	1,172	1,178	1,173	1,173	1,177	1,185	1,199	1,203	...
Systemic dependency ratio - all pensioners (percent)	56.9	58.9	57.3	54.6	55.1	53.9	57.0	58.5	...
Life expectancy (years)									
Men	68.4	68.3	68.4	68.9	68.9	68.6	69.0	69.1	...
Women	76.7	76.5	76.3	76.8	76.7	76.7	77.0	77.2	...
REPLACEMENT RATE									
Monthly pension benefits (average, Sk)									
Old age	1,971	2,198	2,549	2,823	3,101	3,426	3,677	4,014	...
Monthly wage (average, Sk)	5,379	6,294	7,195	8,154	9,226	10,003	10,728	11,430	12,365
Replacement rates (percent)									
Old age	36.6	34.9	35.4	34.6	33.6	34.2	34.3	35.1	...
EXPENDITURE (Sk billion)									
Old age		38.0	44.7	46.9	52.1	58.0	62.9	69.3	74.6
REVENUE									
Pension revenue in Sk billion:									
Old age		38.4	44.9	51.6	52.1	57.2	57.2	67.6	70.3
Disability		8.4	7.9	7.9	10.2	10.7	10.6	10.7	14.5
Contribution rate, old age (percent)	26.5	26.5	26.5	27.5	27.5	27.5	27.5	27.5	28.0
of which: employers	20.6	20.6	20.6	21.6	21.6	21.6	21.6	21.6	21.6
employees	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.4
Contribution rate, disability (percent)	5.5	5.5	5.8	4.8	4.8	4.8	4.8	4.8	4.8
of which: employers	4.1	4.1	4.4	3.4	3.4	3.4	3.4	3.4	3.4
employees	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Maximum assessment base (end-year)			19,600	21,600	21,600	24,000	24,000	32,000	32,000
Memo: minimum wage (end-year)	2,450	2,450	2,450	2,700	2,700	3,000	3,600	4,400	4,920
Collection rate (percent)								98.2	...
BALANCE (Sk billion)									
Old age		0.4	0.1	4.7	0.0	-0.8	-5.8	-1.7	-4.3
Disability		3.3	1.8	-0.2	0.9	0.6	0.1	0.5	4.4
Old age pensions, in percent of GDP:									
Pension revenue		7.9	7.9	8.2	7.4	7.4	6.8	7.4	7.1
Pension expenditure		7.8	7.9	7.5	7.4	7.5	7.5	7.6	7.5
Pension system balance		0.1	0.0	0.7	0.0	-0.1	-0.7	-0.2	-0.4
Memorandum items:									
Nominal GDP (Sk billion)	406.6	486.1	568.9	628.6	708.6	775.0	835.7	908.8	989.3
CPI inflation (year-average)	23.0	13.5	9.8	5.8	6.1	6.7	10.6	12.0	7.3
Nominal wage growth (percent)	18.4	17.0	14.3	13.3	13.1	8.4	7.2	6.5	8.2
Index of real wage (1993=100)	100.0	103.1	107.3	115.0	122.6	124.5	120.8	114.9	115.9
Index of real pensions (1993=100)	100.0	98.3	103.7	108.6	112.4	116.4	113.0	110.2	...
Unemployment rate	14.4	14.8	13.1	12.8	12.5	15.6	19.2	17.9	18.6
Labor force participation rate	47.9	46.9	47.3	47.9	48.3	48.3	49.3	49.9	50.1

Sources: Ministry of Labor, Social Affairs and Family; Statistical Office of the Slovak Republic.

Table 2. Slovak Republic: Revenues and Expenditures of the Social Insurance Agency, 1995-2001

	1995	1996	1997	1998	1999	2000 Prel.	2001 Est.	1995	1996	1997	1998	1999	2000 Prel.	2001 Est.
	(In millions of koruny)							(In percent of GDP)						
Revenues of sickness insurance, total	**7,693**	**7,310**	**9,576**	**9,817**	**10,001**	**10,994**	**11,970**	**1.4**	**1.2**	**1.4**	**1.3**	**1.2**	**1.2**	**1.2**
Of which: Insurance premia paid by														
Employees	2,108	2,464	2,669	2,631	2,618	2,789	...	0.4	0.4	0.4	0.3	0.3	0.3	...
Employers	5,183	4,254	6,204	6,284	6,278	6,664	...	0.9	0.7	0.9	0.8	0.8	0.7	...
Self-employed	297	268	381	447	456	523	...	0.1	0.0	0.1	0.1	0.1	0.1	...
Government	93	73	87	154	161	199	1,037	0.0	0.0	0.0	0.0	0.0	0.0	0.1
National Labor Office	12	93	122	162	204	186	137	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other payments	...	158	113	139	284	633	...	...	0.0	0.0	0.0	0.0	0.1	...
Revenues of pension scheme, total	**44,603**	**50,932**	**51,503**	**56,299**	**56,546**	**66,625**	**67,800**	**7.8**	**8.1**	**7.3**	**7.3**	**6.8**	**7.3**	**6.9**
Of which: Insurance premia paid by														
Employees	8,237	9,222	10,053	10,754	10,733	11,580	...	1.4	1.5	1.4	1.4	1.3	1.3	...
Employers	29,622	34,908	36,674	39,136	39,114	42,000	...	5.2	5.6	5.2	5.0	4.7	4.6	...
Self-employed	1,556	1,914	2,153	2,435	2,464	2,849	...	0.3	0.3	0.3	0.3	0.3	0.3	...
Government	4,731	3,330	539	980	962	734	3,682	0.8	0.5	0.1	0.1	0.1	0.1	0.4
National Labor Office	424	696	709	930	1,168	1,056	802	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Other payments	33	862	1,375	2,064	2,105	8,406	...	0.0	0.1	0.2	0.3	0.3	0.9	...
Memo: Total excluding government, other	*39,839*	*46,740*	*49,589*	*53,255*	*53,479*	*57,485*	*64,118*	*7.0*	*7.4*	*7.0*	*6.9*	*6.4*	*6.3*	*6.5*
Expenditures, total	**62,029**	**68,964**	**75,215**	**83,235**	**87,803**	**93,028**	**...**	**10.9**	**11.0**	**10.6**	**10.7**	**10.5**	**10.2**	**...**
Of which:														
Systematic sickness insurance benefits	5,708	7,388	8,115	8,974	9,496	9,144	8,879	1.0	1.2	1.1	1.2	1.1	1.0	0.9
Systematic pension scheme benefits	41,438	46,089	51,000	56,883	61,870	68,314	73,379	7.3	7.3	7.2	7.3	7.4	7.5	7.4
Social insurance benefits paid by government	14,884	15,487	16,100	17,378	16,437	15,570	...	2.6	2.5	2.3	2.2	2.0	1.7	...

Sources: 1994-2000 - *Statistical Yearbook of the Slovak Republic*, various issues;
2001 - Ministry of Finance.

Table 3. Slovak Republic: Ministry of Labor Long-Run Macroeconomic and Demographic Assumptions

Macroeconomic Scenario, for the period 2010–2085

	Variant: Optimistic	Pessimistic
Average rate of inflation	2.1	2.6
Average unemployment rate	6.2	10.2
Labor productivity growth (real)	2.23	1.73
Average wage growth (real)	1.62	1.12
Average GDP growth (real)	1.68	1.17

Demographic Scenario, for the period 2010–2080

	2000	2010	2020	2030	2040	2050	2060	2070	2080
Number of live births	55 152	52 691	59 011	64 287	56 635	56 151	56 474	57 257	54 990
Population (in millions)	5.41	5.42	5.35	5.34	5.2	4.99	4.81	4.65	4.56
Average population age:									
Men	34.4	37.2	39.6	40.6	41.2	41.4	41.1	40.4	40.1
Women	37.5	40.3	42.8	43.9	44.8	45.1	44.9	44.0	43.2
Total population	36.0	38.8	41.2	42.3	43.1	43.3	43.1	42.3	41.7
Life expectancy:									
Men	68.5	68.8	69.4	70.1	70.8	71.6	72.5	73.4	74.4
Women	76.9	77.4	78.1	78.7	79.5	80.3	81.2	82.2	83.3

Source: MLSAF, *Quantification of Impact on Public Finances*, Attachment to draft Social Insurance Act, 2001.

Table 4. Social Security Payroll Taxes in Selected European Countries
Percent of Gross Wage

	Pensions			All Social Insurance
	Employer	Employee	Total	
Slovak Republic	**21.6**	**6.4**	**28.0**	**50.8**
Czech Republic	20.4	6.8	27.2	48.5
Hungary	18.0	8.0	26.0	44.3
Poland	45.0	0.0	45.0	48.0
Austria	12.6	10.3	22.8	45.0
Belgium	8.9	7.5	16.4	38.9
Finland	16.7	4.5	21.2	27.9
France	10.0	7.0	17.0	51.0
Germany	9.7	9.7	19.3	41.0
Greece	13.3	6.7	20.0	34.5
Ireland	4.5	11.1	15.6	18.5
Italy	21.3	8.3	29.6	56.7
Luxembourg	8.0	8.0	16.0	28.7
Netherlands	0.0	32.1	32.1	56.0
Portugal	23.8	11.0	34.8	37.8
Spain	23.6	4.7	28.3	38.3
Sweden	19.0	1.0	20.0	24.9
United Kingdom	...	...	...	13.9
Memo: EU average (unweighted)	13.2	9.4	22.5	36.7

Sources: Palacios and Pallarès-Miralles (2000), as updated at http://www.worldbank.org; OECD (2002), *Taxing Wages: 2000-2001*; IMF staff.

Table 5. Legal Retirement Ages in Selected European Countries 1/

	Men	Women
Slovak Republic	**60**	**57**
Czech Republic	62	61
Hungary	60	57
Poland	65	60
Austria	65	60
Belgium	65	65
Denmark	67	67
Finland	65	65
France	60	60
Germany	63	63
Greece	65	60
Ireland	65	65
Italy	65	60
Luxembourg	65	65
Netherlands	65	65
Portugal	65	65
Spain	65	65
Sweden	65	65
United Kingdom	65	60
Memo: EU average (unweighted)	64.7	63.3

Source: Palacios and Pallarès-Miralles (2000), as updated at http://www.worldbank.org.

1/ Data refer to 2000.

Table 6. Slovak Republic: Life Expectancy Projections

	Men		Women	
	MLSAF	UN	MLSAF	UN
2000	68.5	...	76.9	...
2010	68.8	70.8	77.4	78.1
2020	69.4	72.4	78.1	79.4
2030	70.1	74.0	78.7	80.4
2040	70.8	75.6	79.5	81.4
2050	71.6	76.6	80.3	82.4
2060	72.5	...	81.2	...
2070	73.4	...	82.2	...
2080	74.4	...	83.3	...

Sources: MLSAF - Quantification of Impact on Public Finances, Attachment to draft Social Insurance Act, 2001.

UN - United Nations, *World Population Prospects Population Database,* http://esa.un.org/unpp.

REFERENCES

Barr, Nicholas, 2000, "Reforming Pensions: Myths, Truths and Policy Choices," IMF Working Paper WP/00/139, (Washington: International Monetary Fund).

Bütler, Monika, 2001, "The Political Feasibility of Increasing Retirement Age: Lessons from a Ballot on Female Retirement Age," CEPR Discussion Paper No. 2780 (London: Centre for Economic Policy Research).

Chlon, Agnieszka, Marek Góra, and Michal Rutkowski, 1999, "Shaping Pension Reform in Poland: Security Through Diversity," World Bank Social Protection Discussion Paper No. 9923 (Washington: World Bank).

Disney, Richard, 1999, "Notional Accounts as a Pension Reform Strategy: An Evaluation," World Bank Social Protection Discussion Paper No. 9928 (Washington: World Bank).

Disney, Richard, 2000, "Crises in Public Pension Programmes in OECD: What are the Reform Options?," The *Economic Journal*, 110 (February), pp. F1-F23.

Fox, Louise, and Edward Fox, 1999, "Latvian Pension Reform," World Bank Social Protection Discussion Paper No. 9922 (Washington: World Bank).

Góra, Marek, 2001, "Polish Approach to Pension Reform," in *OECD 2000 Private Pensions Conference,* No. 3 (Paris: Organisation for Economic Cooperation and Development).

Heller, Peter S., 1998, "Rethinking Public Pension Reform Initiatives," IMF Working Paper WP/98/61 (Washington: International Monetary Fund).

Holzmann, Robert, and Robert Palacios, 2001, "Individual Accounts as Social Insurance: A World Bank Perspective," World Bank Social Protection Discussion Paper No. 0114 (Washington: World Bank).

Laursen, Thomas, 2000, "Pension System Viability and Reform Alternatives in the Czech Republic," IMF Working Paper WP/00/16 (Washington: International Monetary Fund).

Mackenzie, G.A., Philip Gerson, Alfredo Cuevas, and Peter S. Heller, 2001, "Pension Reform and the Fiscal Policy Stance," IMF Working Paper WP/01/214 (Washington: International Monetary Fund).

Ministry of Labor, Social Affairs and Family, 1999, *Concept of the Social Insurance Reform in the Slovak Republic*, (Bratislava).

Orzsag, Peter R., and Joseph E. Stiglitz, 2001, "Rethinking Pension Reform: Ten Myths about Social Security Systems," in , *New Ideas about Old Age Security*, ed. by Robert Holzmann and Joseph E. Stiglitz (Washington: World Bank).

Palacios, Robert, and Montserrat Pallarès-Miralles, 2000, "International Patterns of Pension Provision," World Bank Social Protection Discussion Paper No. 0009 (Washington: World Bank).

Rocha, Roberto and Dimitri Vittas, 2001, "The Hungarian Pension Reform: A Preliminary Assessment of the First Years of Implementation," World Bank Policy Research Working Paper No. 2631 (Washington: World Bank).

Schiff, Jerald, Niko Hobdari, Axel Schimmelpfennig, and Roman Zytek, 2000, "Pension Reform in the Baltics: Issues and Prospects," IMF Occasional Paper 200, (Washington: International Monetary Fund).

Wagner, Nancy, 2002, "The Demographic Shock and Hungary's Pension System," in *Hungary: Selected Issues and Statistical Appendix*, IMF Country Report No. 02/109 (Washington: International Monetary Fund).

III. Investment Financing and Credit Rationing in the Slovak Transition[1]

A. Introduction

1. ***Firms' access to financing is essential for the success of the transition.*** Inadequate access to financing limits entrepreneurial activity, investment and economic growth. But a properly functioning financial system should strike a balance between providing access to credit and ensuring that, for the same level of risk, financing is allocated towards the most profitable projects, because misallocated financing wastes scarce resources and also limits economic growth. At a more macro level, monetary policy can affect firms' access to credit across the board—particularly if overly tight—with consequences for economic growth, at least in the near term.

2. ***The absence of liquidity constraints typically indicates the microeconomic efficiency of a financial system—but in transition economies could also be a sign of soft budget constraints.*** A firm faces liquidity constraints if it does not have sufficient liquidity to finance its investments, and external financing is only available on less favorable terms than internal financing or is not available at all. When liquidity constraints are prevalent, informational asymmetries may be the underlying cause of financial system inefficiencies. In some transition countries, however, a combination of weak corporate governance, soft budget constraints, politically motivated lending and poor risk management have led to loans being extended regardless of the quality of borrowers. This has resulted in no credit constraints for some enterprises but should not be interpreted as evidence of market efficiency.

3. ***Against this background, this chapter presents empirical evidence on the existence and possible causes of liquidity constraints faced by Slovak firms during the 1990s, and draws lessons for macroeconomic and financial sector policies.*** Using new panel data for more than 1,200 Slovak enterprises over the period 1994–2000, the chapter addresses the following questions:

- Is there evidence of credit rationing for the sample of firms?
- If so, can these liquidity constraints be attributed to information problems, the appropriate behavior of a reformed banking system, or a macro credit crunch?
- Do liquidity constraints vary through time and across types of firms?

The chapter is organized as follows. Section B discusses how liquidity constraints can arise, including in the case of Slovakia, and reviews earlier evidence for other transition countries. Section C outlines the methodological approach, using a traditional investment equation modified to include cash flow as an explanatory variable. Section D presents the empirical results. Section E concludes and discusses some policy implications.

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[1] Prepared by Stéphanie Guichard.

B. Liquidity Constraints and the Slovak Context

4. ***Liquidity constraints can be found in mature economies.*** They are a likely outcome where there is a pool of private sector borrowers, but lenders are unable to distinguish good from bad credit risks because of lack of adequate information. Stiglitz and Weiss (1981) show that where there is such imperfect information about the quality of a heterogeneous group of potential borrowers, some worthy borrowers can be rationed from credit markets. In an ideal world with efficient financial markets and no informational problems, there should be no liquidity constraints such as these. In practice, this is not the case even in mature economies. Empirically, a firm may be considered liquidity constrained if its investment depends strongly on the availability of internal financing. The evidence in mature economies is that small and medium-sized enterprises (SMEs) are more likely to face such difficulties than large enterprises.

5. ***In transition economies, the absence of liquidity constraints also has been associated with microeconomic inefficiencies.*** In the Stiglitz-Weiss setting, "good borrowers" would be suboptimally excluded from resources, but the reverse has been also the case in some transition countries. In many of these countries, "bad borrowers" benefited from soft credit constraints and received sizable financing leading to misallocation of credit—exacerbating the borrowing difficulties of SMEs—and/or to "too much" credit and serious bad loan problems.

6. ***Monetary policy can exacerbate credit constraints, as overly tight policy restricts the ability of firms to carry out their projects.*** Calvo and Corricelli (1993) noted that, under certain conditions, tight monetary and credit conditions can constrain firm activity and, thus, affect output. Their evidence suggests that at least part of the output collapse in Eastern European countries during the early phase of transition can be attributed to a "liquidity crunch"—a macroeconomic phenomenon that would affect firms across the board without any microeconomic consideration.

7. ***Previous studies on other transition economies found liquidity constraints, which were generally amplified by misallocation of credit.*** These studies showed evidence of liquidity constraints, along with easier access to financing by some types of enterprises (Box 1). In several cases, and especially in the early years of transition, such easier access to finance reflected the persistence of soft budget constraints rather than the absence of information problems.

Box 1. Overview of Results in Other Transition Countries

For the **Czech Republic**, Lízal and Svejnar (2002) found that small enterprises and cooperatives were credit rationed over 1992-98, while large firms and in particular state-owned firms operated under a soft-budget constraint. They also showed a progressive increase in credit rationing over the years, which they interpret as a sign of progress in the transition.

For **Poland**, Weller (1999) found evidence of credit rationing over 1994–97 in the nondurable goods sector only.

For **Bulgaria**, Budina, Garretsen, and de Jong (2000) showed that in 1993–95 small enterprises were credit rationed, whereas banks provided generous credit to large, highly indebted, loss-making firms.

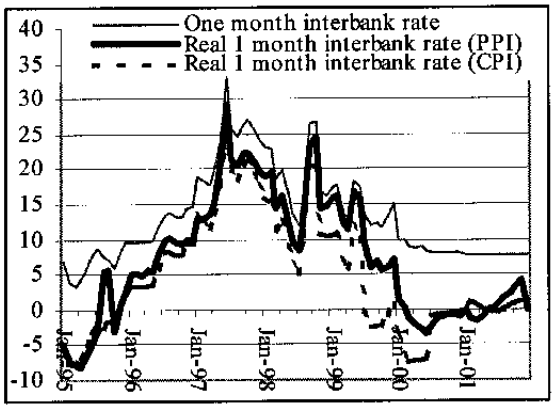
For **Hungary**, Maurel (2001) showed that over 1992–98, all kinds of firms were credit rationed, including state-owned ones, but that foreign firms were less rationed. The study also showed that state-owned enterprises did not have an investment behavior compatible with profit maximization (a result reflecting the persistence of soft budget constraints, although not through soft credit).

For **Slovenia**, Prasnikar and Svejnar (1998) showed evidence of credit rationing from 1989 to 1995 and a trade-off between wages and investment, but no effect of demand.

8. ***In Slovakia, evidence of easy financing for some firms, alongside liquidity constraints for other firms, suggests misallocation of credit during the 1990s.*** Slovakia's main banks remained in state ownership for much of the 1990s, while firms were privatized through voucher privatization or sold to insiders, often in a nontransparent manner. In this context, sizable extension of credit—often to nonprofitable, large enterprises—resulted in an accumulation of bad loans in banks' balance sheets, while excluding smaller firms from financing. The 1999 OECD survey on Slovakia noted that "there are inadequate resources for the development of new firms, especially in the potentially dynamic area of small and medium-sized enterprises" and that self-financing is often the only option for these enterprises. SMEs' problems in accessing credit, though, are likely to stem from both credit misallocation and information problems.

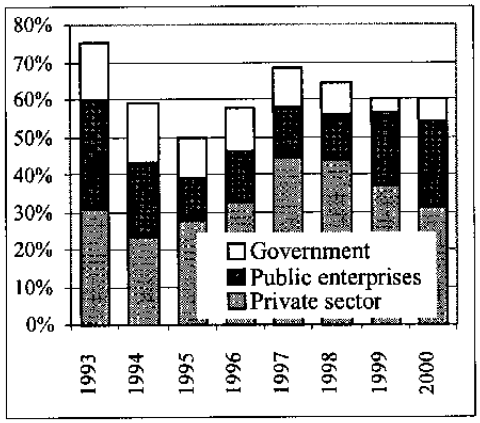
9. ***The macroeconomic context would suggest that tight monetary policy probably contributed to—but were a minor factor explaining—liquidity constraints.*** Monetary policy was tightened from early 1997 onwards: real interest rates increased sharply (Figure 1), and domestic credit growth eventually fell in real terms (Figure 2). However, investment continued to grow rapidly (Figure 3), financed to a large extent by foreign borrowing on attractive terms by some large firms. Moreover, credit growth remained low in 1999–2001, despite a dramatic easing of monetary policy, suggesting that other—microeconomic—factors held down credit.

Figure 1. Nominal and Real Interest Rates (in %)



Sources: Slovak authorities, staff calculations.

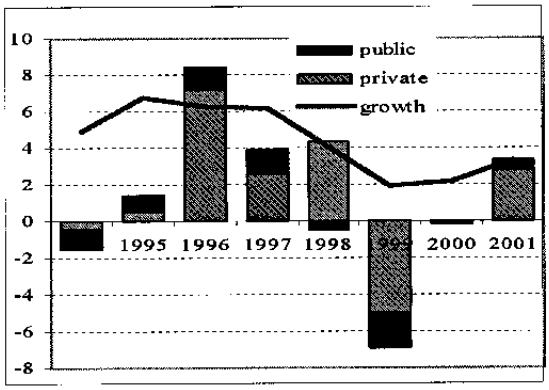
Figure 2. Credit, in percent of GDP



Sources: Slovak authorities, staff calculations.

10. ***Since 1999, the authorities have taken measures to improve credit allocation and firms' access to financing.*** Reform of the financial and corporate sectors took place in the context of a World Bank Enterprise and Financial Sector Adjustment Loan (EFSAL) arrangement. Budget constraints have been hardened, notably by breaking the old relationships between the banking sector and unsound enterprises through the privatization of banks and nonfinancial enterprises. The main banks were privatized and their management restructured, and, following the transfer of risk management technology from foreign mother companies, these banks are now improving SMEs' access to financing.

Figure 3. Contribution of Investment to Growth in Real GDP (in %)



11. ***Improvements in the legal framework were designed to enhance SMEs' access to financing and to attract foreign investors.*** At first, the cleanup of the banking sector resulted in the contraction of aggregate financing to the corporate sector noted above, contributing to a shrinking of investment in 1999 (Figure 3). After two years of banking sector restructuring and improvements in the legal and institutional framework, however, credit growth has started to recover. Also, investment has gathered momentum in a much sounder financial and legal environment, although soft credit constraints persist in some parts of the public sector, particularly through state loan guarantees.

C. Methodology: The Investment Equation

12. ***Traditional models of investment have to be modified to test for liquidity constraints.*** The two standard models of investment—the accelerator model and the neoclassical investment model derived from profit maximization—suggest that investment expenditures are related to investment opportunities, especially changes in expected demand. In either standard framework, internal and external financing are perfect substitutes and financial markets are not distorted by informational asymmetries. But in the presence of Stiglitz-Weiss-type information problems, investment expenditure could be constrained to the amount of internal financing available—implying a role for cash flow in determining investment expenditure.

13. ***Studies including cash flow as an explanatory variable, proxying the availability of internal funds, have indicated how different types of enterprises are affected by information/market efficiencies problems.*** Fazzari, Hubbard, and Petersen (1988) introduced cash flows in investment equations to investigate the empirical importance of liquidity constraints in mature market economies. In the case of Japan, Hoshi, Kashyap and Scharfstein (1991) show that, for *keiretsu* groups, long-term relationships between firms and banks helped overcome information problems, while independent firms with looser banking relationships faced liquidity constraints.

14. ***The following analysis uses a standard neoclassical investment equation modified to include enterprise cash flows.*** The starting point is the following investment equation, from the study of Czech enterprises by Lízal and Svejnar (2002):

$$I_t / K_{t-1} = a_1 + a_2 CF_t / K_{t-1} + \sum_{k=1}^{k=m} b_k Y_{t-k} / K_{t-1} + e_t \qquad (1)$$

with I representing investment, K the capital stock, CF cash flow, and Y a proxy for investment opportunities. In the absence of liquidity constraints, the coefficient on the cash flow variable, a_2, is zero, and equation (1) collapses to a standard neoclassical investment equation.

15. ***This chapter estimates a version of this equation for a panel of firms, modified to take into account changes in the overall business environment:***

$$I_{it} / K_{it-1} = a_0 + a_1 Y_{it} / K_{i\,t-1} + a_2 Y_{i\,t-1} / K_{i\,t-1} + a_3 CF_{it} / K_{i\,t-1} + \sum_{k=t0+1}^{k=T} a_k D_k + e_{it} \qquad (2)$$

where Y represents sales; i =1 to k the individual enterprises; and D represents yearly dummies to take into account changes in the overall environment, including the monetary stance. It is assumed that investment expenditures are decided at the beginning of the period t on the basis of expected sales for period t (taking into account sales of the previous period) and that this expenditure might be constrained by the amount of available internal resources.

16. ***Equation (2) is estimated using both the full sample and splitting the sample by type of enterprise and by year.*** This allows an assessment of changes in results over time, and also testing for evidence of asymmetries in access to credit across size, ownership, and other characteristics. The sub-sample analysis is essential to better identify the sources and nature of liquidity constraints. In line with most work in this area, this chapter splits the sample by groups of enterprises rather than allowing only the cash flow coefficient to vary among groups.

17. ***The coefficients can be interpreted as follows***:

- First, as noted, a significant and positive coefficient of the cash flow coefficient, a_3, would indicate that firms in the relevant group face liquidity constraints and need to rely on internal funds to finance investment. On the other hand, as Lízal and Svejnar suggest, a negative coefficient could suggest soft budget constraints, with banks supporting loss-makers at the expense of profitable enterprises. Finally, an insignificant coefficient would be consistent with the absence of liquidity constraints.
- Second, the coefficients on sales, a_1 and a_2, are expected to be significant and positive if, as suggested by the profit-maximization assumption or the investment accelerator approach, investment increases with investment opportunities. The estimated equation approximates investment opportunities through the sales variable.

D. Empirical Evidence

18. ***All data used in this study come from the "Albertina" database, which compile publicly available financial statements.*** Appendix I provides details on the database and the series. The database includes information based on the type of activity, the type of ownership, the national account classification, the business activity, the legal form, and the size (Appendix Tables A1–A4). The estimation uses a panel of 3,188 observations from 1994 to 2000 for about 1,200 enterprises.

19. ***The estimation uses a fixed-effects model.***[2] This model has the advantage of taking into account firm heterogeneity. Tests also suggested that the fixed-effects model was statistically preferable to a model with random effects. The method was compared with a population average estimation with heteroscedasticity correction and the results were quite similar. The limited length of the time series for most enterprises prevented the use of traditional estimation methods for avoiding bias, such as instrumental variables or generalized method of moments. However, the absence of a significant difference between estimations of a cash-flow coefficient obtained with OLS and fixed-effects estimation suggests that the measurement bias for this crucial parameter is limited.

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[2] A fixed-effects model is a model in which the error term includes a constant which is enterprise specific. Ordinary least squares (OLS) estimation is used for the year-by-year estimations.

20. ***As a preliminary analysis, investment rates were compared across different groups of enterprises and/or over time.*** The ratios of investment to the capital stock are broadly of the order of magnitude of other studies. The investment ratios follow the cycle described in Section B, with investment picking up in 1997–1998 (see Appendix Tables A5 and A6). Investment rates are statistically higher for foreign-owned enterprises, and lower for loss-making enterprises, although this is not true for loss-making foreign enterprises.

21. ***Estimations using the whole sample of firms show evidence of liquidity constraints in Slovakia over the period 1994–2000*** (see Table 1). The coefficient for cash flow is significant and positive and roughly comparable to the coefficient obtained by Lízal and Svejnar (2002) for the Czech Republic. Also, the coefficient of demand opportunities is positive ($a_1 + a_2 > 0$) and significant, indicating that firms tend to increase investment when investment opportunities increase, in line with the profit maximization framework. The negative coefficient for dummies in 1999 and 2000 suggests that, everything else being equal, investment expenditure was lower in 1999 and 2000.

22. ***Credit constraints, which appear to have been tight in 1995–1998, abated at the aggregate level in the late 1990s, while financial market efficiency improved*** (see Table 2).[3] As noted, from 1996 to 1998, expansionary fiscal policies were accompanied by large-scale extension of government guarantees and pressure on banks to support some loss-making enterprises. The central bank countered these policies with a tightening of monetary conditions, which can explain the ongoing dominance of liquidity constraints, despite the loose credit policy for protected firms. **After 1998, the coefficient of cash flow is not significant.** Improvements in the corporate and banking sectors, and in the overall business environment suggest that **this result reflects better credit allocation, and not a deterioration of banking sector efficiency resulting in generalized soft credit allocation**.

23. ***The ownership of enterprises affects the existence of liquidity constraints*** (see Table 3).

- ***Foreign-owned enterprises appear not to face liquidity constraints***. This is consistent with the observed higher investment rate for foreign-owned enterprises, and reflects easy access to external financing through their parent companies, as well as easier and cheaper access to domestic credit. Also, most foreign-owned enterprises are at the early stages of their life cycle, with low or negative internal resources and need for investment.
- ***Liquidity constraints appear particularly strong for cooperatives, and to a lesser extent for state- and municipality-owned companies***. In the case of publicly owned companies, the positive signs for the cash flow coefficient show only the absence of

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[3] Dummies representing the sector, ownership, size, and foundation types of firms were added to the regressions to capture firm heterogeneity, since fixed-effects estimation is not possible.

soft credit through external financing. This does not mean that publicly owned enterprises did not receive generous subsidies. Moreover, well-identified state-supported enterprises are not in the database. For instance, at least 12 big state-owned enterprises benefiting from easier access to credit through state guarantees are not in the database. Thus, conclusions on public sector investment should be drawn with caution.

- ***Private domestic enterprises and mixed capital enterprises with international participation also faced credit rationing.***

24. ***The size of enterprises appear to be another key factor behind the existence of liquidity constraints*** (text table):

Liquidity Constraints: Potential Impact of Different Sources and Empirical Evidence by Size of Enterprise 1/

	SMEs		Large	
	Potential Impact	Evidence	Potential Impact	Evidence
Sources				
Informational problems	+	yes 2/	0	yes
Credit misallocation	+	yes 2/	-	yes
Macro liquidity crunch	+	some	+	some

1/ + indicates that the source phenomenon would increase liquidity constraints.
2/ It is very difficult to distinguish the contributions of information problems and credit misallocation.

- ***Small and medium-sized enterprises (SMEs) tended to be more credit-rationed than larger enterprises*** (see Table 4). This result is consistent with results in most OECD countries where SMEs face important informational problems. Here, these problems have been probably worsened by crowding out of resources by large public enterprises. SMEs tended also to behave more in line with profit maximization than the larger firms, with a positive impact of demand on investment.

- ***Moreover, liquidity constraints persisted for SMEs in 1999 and 2000***, according to estimations conducted for this group for these years. Commercial bank representatives note that, until recently, banks did not have the tools to assess correctly credit risk and opportunities in this sector. The evidence that liquidity constraints have persisted for SMEs is consistent with the banks' acknowledgement of informational problems. As noted, there are indications that banks have become more active recently in providing financing to the SMEs.

- ***Very large enterprises (more than 1,000 employees) also seemed to face strong credit constraints.*** However, their investment reacts negatively to sales, which is at odds with profit-maximization assumptions and reflects management inefficiencies.

- ***In the case of large enterprises (150 to 1,000 employees), there is evidence of a negative relationship between investment and cash flows*** (Table 4). According to Lízal and Svejnar (2002), this should reflect the persistence of a strong version of soft budget constraints. But it might also reflect the way they were privatized, at least at the end of the period under review, where large loss-making firms were restructured with external financing.

25. ***Furthermore, differences could be observed across sectors and regions.*** Liquidity constraints were not found in the mining, electricity, gas, and water supply industries, which is not surprising given that firms in these industries typically rely on government-guaranteed loans for their financing. On average, firms in the Bratislava region were not credit-rationed. This result is also not surprising, as Bratislava is the region with the best financial infrastructure and the largest share of FDI inflows.

E. Conclusions and Policy Implications

26. ***Empirical analysis over the period 1994–2000 suggests that Slovak firms faced liquidity constraints, and had to rely on internal resources to finance investment.*** Differences in liquidity constraints across groups and over time suggest three main results. First, **over time**, liquidity constraints were observed in 1995998 and, at an aggregated level, such constraints abated in 19992000. Second, **across ownership**, foreign-owned firms faced virtually no liquidity constraints. Third, **across size**, SMEs were liquidity constrained, but large enterprises were not; and liquidity constraints for SMEs did not ease in 1999–2000.

27. ***Stiglitz-Weiss-type information problems have resulted in substantial liquidity constraints for SMEs, amplified by substantial credit misallocations.*** The empirical evidence on the persistence of liquidity constraints for SMEs after 1998 confirms the existence of significant informational problems, with banks rationing credit to domestically owned enterprises, especially private and small firms. Moreover, the findings that the liquidity constraints faced by some firms were particularly tight during the 1995–1998 period of rapid credit growth and economic expansion, and abated in 1999–2000 as credit growth and economic activity weakened, strongly suggest significant credit misallocation during 1995-1998. This interpretation is supported by evidence that such misallocation was mitigated from 1999 onwards as the banking sector was restructured.

28. ***Although tight monetary policy probably contributed to liquidity constraints for SMEs, a credit crunch is unlikely to have been the main factor.*** Tight monetary policy from early 1997 onwards affected—with a lag—credit, particularly to SMEs, which could not easily switch to foreign financing. However, a dramatic easing of monetary policy in 1999–2001 did not result in a pickup in credit growth until very recently. Indeed, the absence of liquidity constraints overall measured for 1999–2000 suggests that weak demand

for credit —in an overall subdued economic climate—was responsible for the low growth of credit in 1999-2001.

29. ***The measured overall absence of liquidity constraints since 1999 suggests that the reform of the financial system has already improved credit allocation and firms' access to financing.*** Indeed, credit growth has started to pick up again since early 2002.

30. ***Further progress in alleviating liquidity constraints for SMEs is necessary.*** Increasing transparency and reporting could ease informational problems. SMEs' access to finance would also benefit from further improvement of the legal framework, as well as strengthening the insolvency and bankruptcy frameworks and creditor rights. The observed credit constraints, however, also reflect the ongoing state support of unsound enterprises through, in particular, the extension of state loan guarantees. This practice should be ended.

Table 1. Slovak Republic: Results for the Whole Sample

	All Enterprises
Constant	0.136
	(7.39) **
Sales	0.002
	(8.38) **
Sales-1	0.000
	(-0.7)
CF	0.013
	(3.57) **
1995	-0.005
	(-0.23)
1996	0.003
	(0.12)
1997	-0.002
	(-0.1)
1998	-0.027
	(-1.31)
1999	-0.075
	(-3.56) **
2000	-0.076
	(-3.26) **
R-sq:	0.07
F-test 1/	2.38
Prob %	0
Nb obs.	3188
Nb firms	1233

1/ F-test: Fixed effect/between model Prob = Prob $a_i = a_j$.
** Significant at the 5 percent level.

Table 2. Slovak Republic: Results by Year

	1994	1995	1996	1997	1998	1999	2000
Constant	-0.251	0.059	-0.080	0.075	0.239	-0.081	-0.155
	(-0.87)	(0.24)	(-0.39)	(0.26)	(0.38)	(-0.41)	(-0.62)
Sales	0.011	-0.003	0.000	0.001	0.001	0.000	0.004
	(4.34)**	(-2.42)**	(0.18)	(1.00)	(3.34)**	(0.36)	(2.65)**
Sales-1	-0.012	0.003	0.000	-0.001	0.000	0.001	-0.004
	(-4.03)**	(2.18)*	(0.68)	(-0.52)	(-0.18)	(1.92)*	(-2.30)**
CF	-0.006	0.119	0.018	0.016	0.010	0.000	0.002
	(-0.54)	(8.33)**	(1.40)	(2.17)**	(2.06)**	(0.06)	(0.43)
Dummies 1/							
R-sq:	0.314	0.296	0.215	0.130	0.122	0.139	0.225
Nb obs.	184	381	425	549	650	690	309

1/ Includes sectoral dummies, owner dummies, foundation dummies. These dummies are not reproduced here to save space.
* Significant at the 10 percent level.
** Significant at the 5 percent level.

Table 3. Slovak Republic: Results by Ownership

	Private	Cooperatives	Public	Foreign	International
Constant	0.029 (4.90)**	-0.022 (-0.74)	-0.044 (-0.95)	-0.110 (-0.60)	0.254 (2.91)**
Sales	0.001 (3.61)**	0.003 (6.40)**	0.058 (5.05)**	0.008 (2.90)**	0.003 (1.79)*
Sales-1	0.000 (-0.37)	0.008 (4.93)**	0.000 (-0.80)	-0.001 (-0.46)	0.000 (-0.19)
CF	0.005 (1.76)*	0.313 (5.43)**	0.250 (3.64)**	-0.012 (-0.68)	0.023 (2.93)**
1995	0.032 (-0.32)	0.001 (0.03)	-0.001 (-0.03)	0.118 (0.70)	-0.038 (-0.42)
1996	0.033 (-0.14)	0.008 (0.31)	0.017 (0.37)	0.308 (1.62)	-0.060 (-0.63)
1997	0.032 (0.30)	0.013 (0.51)	-0.024 (-0.53)	0.212 (1.15)	-0.140 (-1.51)
1998	0.032 (-0.93)	-0.004 (-0.17)	0.009 (0.20)	0.177 (0.99)	-0.167 (-1.82)*
1999	0.032 (-2.86) **	-0.037 (-1.33)	0.001 (0.02)	0.218 (1.22)	-0.189 (-2.08)**
2000	0.035 (-3.23) **	0.024 (0.71)	0.025 (0.51)	0.195 (1.03)	-0.170 (-1.79)*
R-sq:	0.080	0.167	0.185	0.192	0.221
F-test 1/	2.14	1.89	2.42	1.99	3.38
Prob %	0	0.01	0	0	0
Nb obs	1925	484	374	146	251
Nb firms	770	160	124	71	105

1/ F-test: Fixed effect/between model Prob = Prob $a_i = a_j$.
* Significant at the 10% level.
** Significant at the 5 % level.

Table 4. Slovak Republic: Results by Size

	Small (5 to 49 employees)	Medium (50 to 149 employees)	Large (150 to 999 employees)	Very Large (1000 + employees)
Constant	0.187 (4.17) **	0.067 (1.93) *	0.125 (5.24) **	-0.002 (-0.02)
Sales	0.001 (4.32) **	0.004 (2.07) **	0.004 (4.70) **	0.014 (0.72)
Sales-1	0.000 (0.75)	0.001 (0.69)	0.000 (-0.81)	0.005 (0.37)
CF	0.010 (2.04) **	0.149 (5.11) **	0.002 (0.29)	0.500 (4.61) **
1995	0.001 (0.03)	-0.026 (-0.68)	-0.012 (-0.45)	0.020 (0.28)
1996	-0.023 (-0.44)	0.003 (0.07)	-0.004 (-0.14)	0.084 (1.22)
1997	-0.055 (-1.08)	0.011 (0.29)	0.012 (0.43)	0.007 (0.10)
1998	-0.085 (-1.67) *	-0.024 (-0.62)	-0.017 (-0.61)	0.036 (0.53)
1999	-0.157 (-3.08) **	-0.038 (-0.95)	-0.066 (-2.39) **	0.032 (0.47)
2000	-0.190 (-3.29) **	-0.056 (-1.25)	-0.043 (-1.40)	0.000 (0.00
R-sq:	0.132	0.111	0.061	0.218
F-test 1/	2.54	1.55	1.8	2.14
Prob %	0	0	0	0
Nb obs	994	823	1087	240
Nb firms	485	309	357	66

1/ F-test Fixed effect/between model Prob = Prob $a_i = a_j$.
* Significant at the 10 percent level.
** Significant at the 5 percent level.

Overview of the Database and Key Ratios

The 'Albertina' database comprises financial statements that can be found in public sources — mostly in the Commercial Register from 1993 to 2000.[4] Joint stock companies and state enterprises are required by law to provide these statements, as well as most limited liability companies and cooperatives (particularly the larger ones). Companies can also provide data voluntarily. Hence, one of the potential biases of the database is that the enterprises represented there are mostly those that are required to publish their financial statements, and those that are willing to, which may result in an overrepresentation of profit making and well-managed enterprises. The database includes most of the companies that reported results for a given year, implying that the database includes nonsurviving firms. Box A1 presents the data used in this study.

Box A1. Data Definitions

- K is the capital stock = stock of fixed capital
- I is the gross investment during year t. Since the data only included the capital stock and depreciation that were available in the dataset, gross investment has been calculated as the change in the capital stock between end-year t-1 and end-year t plus the depreciation of fixed investment during year t.
- Y is the level of sales, used as a proxy of the demand addressed to the firm (representing investment opportunities).
- CF is cash flow = profit before tax excluding extraordinary items + depreciation. This broad definition of cash flow is comparable to the one used by Lízal and Svejnar (2002) and Budina, Garretsen, and de Jong (2000) and would facilitate comparison with these studies. Moreover, profit after exceptional items and tax was missing for many enterprises.

In line with the approach adopted by Lízal and Svejnar (2002), the database was cleaned up to eliminate inconsistencies. Observations were eliminated when the capital stock at date t or t-1 was less than zero, when the depreciation was negative or larger than the capital stock at the beginning of the period, when sales were negative, when the gross investment was higher than the capital stock at the beginning of the previous period, or when the enterprises had fewer than five employees (since the data provided by very small enterprises are usually of low quality). This left an unbalanced panel of 3,188 observations (with on average 2.6 observations by enterprises). The chapter used this unbalanced database instead of a fully balanced but much smaller sample.

[4] At the time of estimation, however, information for 2000 for some enterprises was not yet available.

Besides the financial statements, the database contains profile information on most firms. Each profile contains the type of ownership, the national account classification, the business activity, the legal form, the address, the size (the precise number of employees is not provided, but only a range, i.e., between x and y employees), the type of foundation (new, privatization, etc.), and the date of foundation. This profile information comes from the Slovak Statistical Office and is based on government authorizations of activity.

The sample includes a large variety of enterprises with interesting characteristics and represents quite well the key features of the Slovak enterprise population (see tables).

- In terms of ownership, the structure of the sample is quite similar to data for the whole population of Slovak enterprises. At end-1999[5] for instance, in the total population, the share of private-owned enterprises is 70 percent, slightly larger than in the sample. The share of public-owned enterprises is smaller than in the sample. The share of foreign firms has increased over time, mainly at the expense of cooperatives (Table A1).
- Large firms and very large firms account for about half of the sample and are over-represented (Table A2). Only 1 percent of the "10–49 employees" firms are in the sample, but more than 50 percent of those with "more than 250 employees" are included. This is due to the stronger publication requirements for larger firms and the exclusion of many small enterprises from the database following consistency problems. Volkswagen Slovakia and most state-owned enterprises receiving state guaranties are not in the database (only 3 out of 15 of the largest enterprises are in the database).
- Of all observations, 22 percent are from Bratislava region (Table A3). Most of the enterprises in the sample are quite young (Figure A1). Of the total, 50 percent of the observations constitute new enterprises and 30 percent, privatized enterprises (Table A4).

[5] 1999 is used as a reference because the database for 2000 was incomplete.

Table A1. Breakdown of the Database by Ownership

	Private domestic	Cooperative	State or Municipality owned	Foreign owned	International 1/	Others	Total
1994	84	62	24	4	9	1	184
1995	203	91	46	10	31	0	381
1996	247	85	54	10	28	1	425
1997	342	75	63	21	47	1	549
1998	415	83	70	33	47	2	650
1999	450	56	78	46	57	3	690
2000	184	32	39	22	32	0	309
Total	1925	484	374	146	251	8	3188
% of Total	60%	15%	12%	5%	8%	0%	100%

1/ Includes public and private enterprises.

Table A2. Breakdown of the Database by Size of Enterprises (Based on the number of employees)

Size of Enterprise	Number of Employees
Small (5-49)	994
Medium (50-149)	823
Large (150-1,000)	1,087
More than 1,000	240
Unknown	44
Total	3,188

Table A3. Regional Breakdown of the Database

Region	Nb	Percent
Bratislava	718	22.52
Trnava	273	8.56
Trencin	372	11.67
Nitra	381	11.95
Zilina	447	14.02
Banska Bystrica	376	11.79
Presov	332	10.41
Kosice	289	9.07

Figure A1. Cumulative Distribution of Foundation Year for 1999

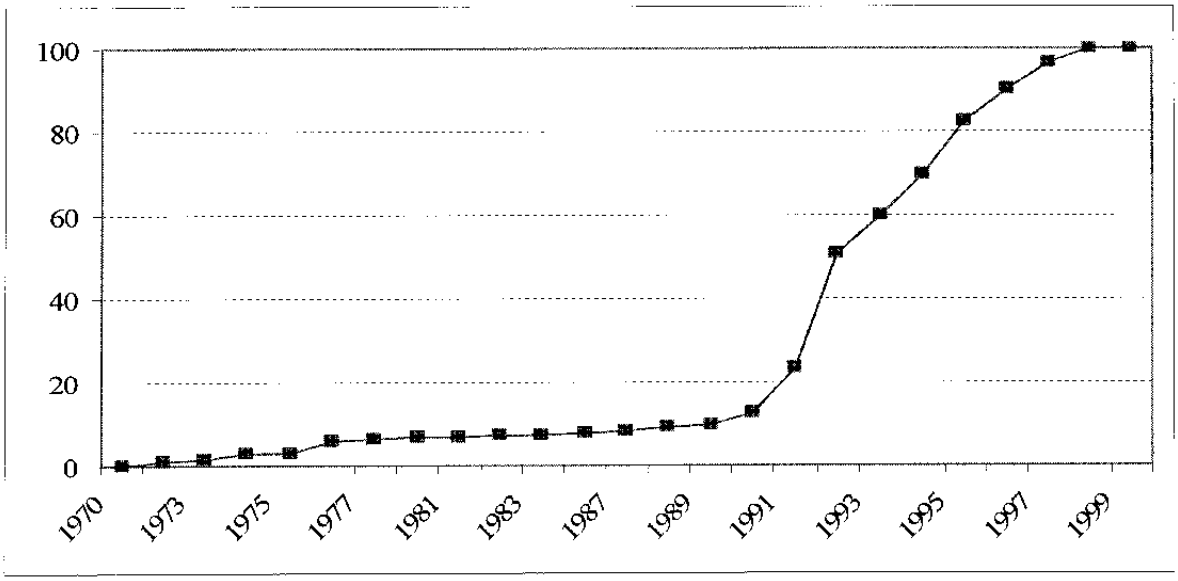

Table A4. Breakdown of the Database according to Enterprise Foundation Type

	Unknown	New	Merging	Separation	Division	Privatization	Application of Transformation Code	Total
1994	25	67	1	0	3	59	29	184
1995	42	147	2	3	11	137	39	381
1996	41	168	1	8	13	154	40	425
1997	33	271	3	11	12	160	59	549
1998	72	338	3	11	11	157	58	650
1999	98	357	6	10	8	161	50	690
2000	45	148	1	5	5	83	22	309
Total	356	1,496	17	48	63	911	297	3,188

Table A5. Gross Investment to Capital Stock Ratio by Ownership and Years

		Private Domestic	Cooperative	State or Municipality owned	Foreign owned	International	Others	Total
1994	Mean	0.15	0.08	0.03	0.05	0.20	0.38	0.11
	SD*	0.27	0.18	0.08	0.11	0.30	0.00	0.23
1995	Mean	0.14	0.09	0.10	0.18	0.21	...	0.13
	SD	0.27	0.17	0.11	0.26	0.20	...	0.23
1996	Mean	0.14	0.11	0.11	0.23	0.18	0.34	0.14
	SD	0.25	0.14	0.24	0.30	0.28	0.00	0.23
1997	Mean	0.16	0.13	0.10	0.27	0.20	-0.07	0.16
	SD	0.27	0.14	0.22	0.26	0.35	0.00	0.26
1998	Mean	0.14	0.11	0.10	0.23	0.19	0.28	0.14
	SD	0.27	0.11	0.21	0.30	0.26	0.10	0.25
1999	Mean	0.09	0.07	0.10	0.33	0.08	0.03	0.10
	SD	0.25	0.13	0.19	0.32	0.24	0.05	0.25
2000	Mean	0.08	0.09	0.15	0.19	0.17	...	0.11
	SD	0.23	0.12	0.20	0.21	0.26	...	0.22
Total	Mean	0.13	0.10	0.10	0.25	0.17	0.16	0.13
	SD	0.26	0.15	0.20	0.28	0.27	0.18	0.24

* SD = Standard Deviation

Table A6. Gross Investment to Capital Stock Ratio by Ownership according to the Sign of Cash Flow

	Private Domestic	Cooperative	State or Municipality owned	Foreign owned	International	Others	Total
Negative cash flow Mean (MN)	0.01	0.02	0.00	0.22	0.06	0.18	0.02
SD	0.27	0.19	0.22	0.35	0.28	0.28	0.27
number	342	54	57	26	55	2	539
Positive cash flow Mean (MP)	0.15	0.11	0.12	0.26	0.20	0.16	0.15
SD	0.25	0.14	0.19	0.27	0.26	0.17	0.23
number	1,583	430	317	120	196	6	2,666
Probability MP=MN	0%	0%	0%	54%	0%	...	0%

Table A7. Mean of Cash Flow and Cash Flow to Capital Stock Ratio by Type of Ownership

	Private domestic	Cooperative	State or Municipality owned	Foreign owned	International	Others	Total
1994	24,847	6,352	33,9468	132,680	-363,557	-625	42,860
	0.41	0.10	0.09	0.90	-1.37	-0.22	0.18
1995	30,250	8,682	27,7398	39,587	103,520	...	61,144
	0.41	0.09	0.13	0.75	0.58	...	0.32
1996	18,973	8,236	135,315	2,276	54,764	5,197	33,863
	0.34	0.18	0.11	-0.02	0.18	0.14	0.26
1997	22,646	9,772	424,793	26,088	46,310	4,696	69,928
	0.46	0.13	0.11	0.40	0.52	0.11	0.36
1998	-2,088	7,179	281,403	30,645	13,263	3,090	32,718
	0.37	0.11	0.08	0.58	-0.16	0.14	0.28
1999	15,996	8,816	308,286	58,302	33,734	801	52,674
	0.31	0.08	0.13	1.52	-0.48	-0.01	0.29
2000	46,834	8,538	489,679	26,698	123,126	...	105,228
	0.05	0.08	0.11	1.34	-0.01	...	0.15
Total	18,500	8,222	317,040	39,573	40,372	2,231	54,609
	0.34	0.11	0.11	0.94	0.00	0.04	0.28
Standard deviation	2.01	0.37	0.22	4.23	3.64	0.17	2.09

REFERENCES

Budina, Nina, Harry Garretsen, and Eelke de Jong, 2000, "Liquidity Constraints and Investment in Transition Economies: The Case of Bulgaria," *Economics of Transition*, Vol. 8, pp. 453-475.

Calvo, Guillermo A., and Fabrizio Coricelli, 1993, "Output Collapse in Eastern Europe," *Staff Papers*, International Monetary Fund Vol. 40 (March), pp. 32-52.

Fazzari, Steven M., R. Glenn Hubbard, and Bruce C. Petersen, 1988, "Financing Constraints and Corporate Investment," *Brooking Papers on Economic Activity*, Vol. 19, pp. 141-206.

Hoshi, Takeo, Anil Kashyap, and David Scharfstein,1991, "Corporate Structure, Liquidity, and Investment: Evidence from Japanese Industrial Groups," *Quarterly Journal of Economics*, Vol.106, pp. 33-60.

Christou, C. and others, "*Slovak Republic: Selected Issues and Statistical Appendix*," IMF Staff Country Report No. 01/129, (Washington: International Monetary Fund).

Lízal, Lubomír, and Jan Svejnar, 2002, "Investment, Credit Rationing, and the Soft Budget Constraint: Evidence from Czech Panel Data," *The Review of Economics and Statistics*, Vol. 84 (May), pp. 353-370.

Maurel, Mathilde, 2001, "Investment, Efficiency, and Credit Rationing: Evidence from Hungarian Panel Data," mimeo.

Organisation for Economic Cooperation and Development, 1999, *OECD Economic Surveys: Slovak Republic* (Paris).

Prasnikar, Janez, and Jan Svejnar, 1998, "Investment and Wages and Ownership During the Transition: Evidence from Slovene Firms," WDI Working Paper No. 184.

Stiglitz, Joseph E., and Andrew Weiss, 1981, "Credit Rationing in Markets with Imperfect Information," *American Economic Review*, Vol. 71 (June), pp. 393-410.

Weller, Christian E., 1999, "The Finance-Investment Link in a Transition Economy: Evidence for Poland from Panel Data," ZEI Working Paper, B4-1999.

Table 1. Slovak Republic: Gross Domestic Product, Current Prices

	1993	1994	1995	1996	1997	1998	1999	2000	2001
					(In billions of koruny)				
Domestic demand	427.0	463.7	559.2	698.7	776.3	857.4	871.9	930.9	1073.0
Consumption	321.1	359.8	408.4	475.1	526.6	588.2	636.2	691.0	757.8
Private	219.2	253.8	287.1	328.6	369.6	413.9	462.8	502.5	552.0
Public, including NPISH 1/	101.9	106.1	121.3	146.5	157.1	174.3	173.3	188.5	205.8
Public	99.9	103.6	117.6	143.1	153.9	169.2	165.6	180.3	197.6
Nonprofit institutions serving households	2.1	2.4	3.8	3.4	3.2	5.2	7.8	8.2	8.2
Investment	105.9	103.9	150.8	223.6	249.6	269.2	235.8	239.9	315.2
Fixed investment	123.5	129.3	143.1	203.4	242.9	280.9	252.9	267.9	309.6
Change in stocks	-17.7	-25.3	7.7	20.2	6.8	-11.7	-17.1	-28.1	5.6
Nongovernment	84.7	84.0	125.6	188.7	203.7	225.1	205.0	207.4	267.1
Government	21.2	19.9	25.2	34.9	45.9	44.0	30.8	32.5	48.0
Net exports of goods and nonfactor services	-20.4	22.3	9.7	-70.1	-67.7	-82.4	-36.2	-22.1	-83.7
Exports of goods and nonfactor services	228.3	287.2	326.4	334.7	397.4	459.1	510.0	652.4	732.3
Imports of goods and nonfactor services	248.7	264.9	316.7	404.8	465.1	541.5	546.2	674.5	816.0
Gross domestic product at market prices	111.8	486.1	568.9	628.6	708.6	775.0	835.7	908.8	989.3
					(In percent of GDP)				
Domestic demand	381.8	95.4	98.3	111.2	109.5	110.6	104.3	102.4	108.5
Consumption	287.1	74.0	71.8	75.6	74.3	75.9	76.1	76.0	76.6
Private	196.0	52.2	50.5	52.3	52.2	53.4	55.4	55.3	55.8
Nonprofit institutions serving households	1.8	0.5	0.7	0.5	0.5	0.7	0.9	0.9	0.8
Public	89.3	21.3	20.7	22.8	21.7	21.8	19.8	19.8	20.0
Investment	94.6	21.4	26.5	35.6	35.2	34.7	28.2	26.4	31.9
Fixed investment	110.4	26.6	25.2	32.4	34.3	36.2	30.3	29.5	31.3
Change in stocks	-15.8	-5.2	1.4	3.2	1.0	-1.5	-2.0	-3.1	0.6
Private	75.7	17.3	22.1	30.0	28.8	29.1	24.5	22.8	27.0
Government	19.0	4.1	4.4	5.6	6.5	5.7	3.7	3.6	4.9
Net exports of goods and nonfactor services	-18.3	4.6	1.7	-11.2	-9.5	-10.6	-4.3	-2.4	-8.5
Exports of goods and nonfactor services	204.1	59.1	57.4	53.2	56.1	59.2	61.0	71.8	74.0
Imports of goods and nonfactor services	222.4	54.5	55.7	64.4	65.6	69.9	65.4	74.2	82.5

Sources: Slovak Statistical Office; and IMF staff estimates.

1/ Nonprofit institutions serving households.

Table 2. Slovak Republic: Gross Domestic Product, Constant Prices of 1995

	1993	1994	1995	1996	1997	1998	1999	2000	2001
				(In billions of koruny)					
Domestic demand	530.6	506.8	559.2	659.5	684.6	731.9	686.2	686.4	736.0
Consumption	403.8	394.9	408.4	454.4	466.4	502.7	503.3	498.3	519.5
Private	273.2	277.2	287.1	313.2	331.8	350.9	361.2	354.6	368.9
Public, including NPISH 1/	130.6	117.7	121.3	141.3	134.6	151.7	142.1	143.7	150.5
Investment	126.8	111.9	150.8	205.1	218.2	229.3	182.9	188.0	216.6
Fixed investment	144.2	140.6	143.1	187.3	214.0	237.6	193.7	196.1	214.8
Change in stocks	-17.4	-28.7	7.7	17.9	4.2	-8.3	-10.7	-8.1	1.8
Private	154.1	119.0	117.9	155.1	173.6	200.4	169.1	172.0	187.0
Public	-9.9	21.6	25.2	32.1	40.4	37.3	24.6	24.1	27.9
Net exports of goods and nonfactor services	-22.5	27.5	9.7	-57.4	-48.5	-70.6	-16.2	-1.6	-28.7
Exports of goods and nonfactor services	277.6	311.4	326.4	322.0	383.2	433.8	456.3	519.2	552.8
Imports of goods and nonfactor services	300.1	284.0	316.7	379.4	431.7	504.4	472.5	520.8	581.5
Gross domestic product at market prices	508.0	534.3	568.9	602.1	636.1	661.3	670.0	684.8	707.3
				(Annual percentage change)					
Domestic demand	...	-4.5	10.3	17.9	3.8	6.9	-6.2	0.0	7.2
Consumption	...	-2.2	3.4	11.3	2.6	7.8	0.1	-1.0	4.2
Private	...	1.5	3.6	9.1	6.0	5.8	2.9	-1.8	4.0
Public	...	-9.8	3.1	16.5	-4.7	12.7	-6.3	1.1	4.7
Investment	...	-11.7	34.7	36.0	6.4	5.1	-20.2	2.8	15.2
Fixed investment	...	-2.5	1.8	30.9	14.3	11.0	-18.5	1.2	9.6
Change in stocks	...	...	...	...	...	...	...	...	...
Exports of goods and nonfactor services	...	12.2	4.8	-1.3	19.0	13.2	5.2	13.8	6.5
Imports of goods and nonfactor services	...	-5.4	11.5	19.8	13.8	16.9	-6.3	10.2	11.7
GDP at market prices	...	5.2	6.5	5.8	5.6	4.0	1.3	2.2	3.3

Sources: Slovak Statistical Office; and IMF staff estimates.

1/ Nonprofit institutions serving households.

Table 3. Slovak Republic: Gross Domestic Product by Sectors, Constant Prices

	1995	1996	1997	1998	1999	2000	2001
			(In billions of 1995 koruny)				
Gross domestic product	546.0	579.9	615.9	641.1	653.3	667.7	689.7
Agriculture	28.8	27.9	29.4	29.3	31.9	32.9	33.7
Industry	158.9	170.8	170.2	171.9	184.4	188.9	188.7
Mining and quarrying	5.1	5.9	6.4	6.8	8.0	6.5	5.9
Manufacturing, *of which:*	132.0	138.3	142.3	149.6	154.0	162.5	171.5
Food	17.6	19.2	17.6	19.7	20.8	19.5	16.2
Chemicals and plastics	25.9	24.6	22.6	24.7	21.3	21.8	21.6
Metal products	20.8	24.0	24.6	23.6	24.8	27.3	30.8
Machinery and vehicles	29.8	32.5	35.0	40.1	43.3	45.5	47.6
Electricity, water and gas	21.8	26.6	21.5	15.4	22.4	19.9	11.3
Construction	38.1	37.6	37.7	35.5	24.7	21.0	21.3
Services	277.7	294.8	328.6	343.3	349.4	364.2	384.7
Market services	214.3	219.3	240.5	258.7	265.2	278.8	296.9
Transportation	37.3	48.3	46.7	49.3	51.5	50.6	59.1
Communications	12.7	13.6	16.4	18.5	18.7	17.5	19.3
Wholesale and retail trade	70.1	71.8	75.6	85.9	89.3	99.7	104.5
Other market services	94.2	85.7	101.9	104.9	105.7	110.9	114.1
Non-market services	63.4	75.5	88.1	84.7	84.1	85.4	87.8
Other 1/	42.5	48.8	50.1	61.1	63.0	60.8	61.4
			(In percent of GDP)				
Agriculture	5.3	4.8	4.8	4.6	4.9	4.9	4.9
Industry	29.1	29.5	27.6	26.8	28.2	28.3	27.4
Mining and quarrying	0.9	1.0	1.0	1.1	1.2	1.0	0.9
Manufacturing	24.2	23.9	23.1	23.3	23.6	24.3	24.9
Food	3.2	3.3	2.9	3.1	3.2	2.9	2.4
Chemicals and plastics	4.7	4.2	3.7	3.9	3.3	3.3	3.1
Metal products	3.8	4.1	4.0	3.7	3.8	4.1	4.5
Machinery and vehicles	5.5	5.6	5.7	6.3	6.6	6.8	6.9
Electricity, water and gas	4.0	4.6	3.5	2.4	3.4	3.0	1.6
Construction	7.0	6.5	6.1	5.5	3.8	3.1	3.1
Services	50.9	50.8	53.4	53.6	53.5	54.5	55.8
Market services	39.2	37.8	39.1	40.3	40.6	41.8	43.0
Transportation	6.8	8.3	7.6	7.7	7.9	7.6	15.2
Communications	2.3	2.3	2.7	2.9	2.9	2.6	2.8
Wholesale and retail trade	12.8	12.4	12.3	13.4	13.7	14.9	15.2
Other market services	17.2	14.8	16.5	16.4	16.2	16.6	16.5
Non-market services	11.6	13.0	14.3	13.2	12.9	12.8	12.7
Other 1/	7.8	8.4	8.1	9.5	9.6	9.1	8.9

Sources: Slovak Statistical Office; and IMF staff estimates.

1/ Imputed banking services charges, indirect taxes, and own supplies.

Table 4. Slovak Republic: Gross Domestic Product by Sectors, Current Prices

	1993	1994	1995	1996	1997	1998	1999	2000	2001
				(In billions of koruny)					
Gross domestic product	369.9	441.3	546.0	606.1	686.1	750.8	815.3	887.2	964.6
Agriculture	17.3	29.3	28.8	29.1	31.6	31.6	33.2	36.0	40.6
Industry	113.1	125.8	158.9	178.9	184.1	191.3	215.6	233.1	241.3
Mining and quarrying	4.6	3.8	5.1	5.6	6.1	6.3	7.5	7.0	6.9
Manufacturing, *Of which:*	72.7	106.4	132.0	146.9	154.6	166.7	178.1	193.2	210.6
Food	8.4	12.6	17.6	20.3	20.1	24.9	27.4	26.6	24.6
Chemicals and plastics	14.2	18.6	25.9	28.8	27.9	30.5	29.1	31.5	33.3
Metal products	12.4	14.7	20.8	25.4	26.5	26.7	27.6	31.1	39.2
Machinery and vehicles	15.7	19.2	29.8	33.5	36.6	40.5	47.8	52.5	55.1
Other manufacturing	22.0	41.3	37.9	39.0	43.4	44.1	46.2	51.4	58.4
Electricity, water and gas	35.8	15.6	21.8	26.3	23.5	18.3	30.0	32.9	23.9
Construction	17.5	20.1	38.1	43.3	47.7	48.2	42.4	42.3	45.6
Services	205.6	244.3	277.7	304.5	369.5	409.3	445.0	494.3	551.3
Market services	156.6	191.2	214.3	230.3	275.5	308.1	343.3	388.2	437.5
Transportation	22.5	29.9	37.3	46.7	48.5	53.6	57.8	66.5	83.3
Communications	7.2	8.3	12.7	13.9	17.2	20.5	23.6	23.6	27.6
Wholesale and retail trade	96.1	115.7	70.1	76.5	85.5	102.8	114.1	134.2	144.9
Other market services	30.8	37.3	94.2	93.2	124.2	131.3	147.7	163.9	181.6
Non-market services	49.0	53.1	63.4	74.2	94.0	101.2	101.7	106.1	113.8
Other 1/	16.4	21.8	42.5	50.4	53.2	70.4	79.1	81.5	85.8
				(In percent of GDP)					
Agriculture	4.7	6.6	5.3	4.8	4.6	4.2	4.1	4.1	4.2
Industry	30.6	28.5	29.1	29.5	26.8	25.5	26.4	26.3	25.0
Mining and quarrying	1.2	0.9	0.9	0.9	0.9	0.8	0.9	0.8	0.7
Manufacturing	19.7	24.1	24.2	24.2	22.5	22.2	21.8	21.8	21.8
Food	2.3	2.9	3.2	3.4	2.9	3.3	3.4	3.0	2.6
Chemicals and plastics	3.8	4.2	4.7	4.7	4.1	4.1	3.6	3.6	3.5
Metal products	3.4	3.3	3.8	4.2	3.9	3.6	3.4	3.5	4.1
Machinery and vehicles	4.2	4.4	5.5	5.5	5.3	5.4	5.9	5.9	5.7
Electricity, water and gas	9.7	3.5	4.0	4.3	3.4	2.4	3.7	3.7	2.5
Construction	4.7	4.6	7.0	7.1	6.9	6.4	5.2	4.8	4.7
Services	55.6	55.4	50.9	50.2	53.8	54.5	54.6	55.7	57.2
Market services	42.3	43.3	39.2	38.0	40.2	41.0	42.1	43.8	45.4
Transportation	6.1	6.8	6.8	7.7	7.1	7.1	7.1	7.5	8.6
Communications	1.9	1.9	2.3	2.3	2.5	2.7	2.9	2.7	2.9
Wholesale and retail trade	26.0	26.2	12.8	12.6	12.5	13.7	14.0	15.1	15.0
Other market services	8.3	8.5	17.2	15.4	18.1	17.5	18.1	18.5	18.8
Non-market services	13.2	12.0	11.6	12.2	13.7	13.5	12.5	12.0	11.8
Other 1/	4.4	4.9	7.8	8.3	7.8	9.4	9.7	9.2	8.9

Sources: Slovak Statistical Office; and IMF staff estimates.

1/ Imputed banking services charges, indirect taxes, and own supplies.

Table 5. Slovak Republic: Investment by Sector

	1993	1994	1995	1996	1997	1998	1999	2000	2001
					(In billions of koruny)				
Total investment, national accounts	123.5	129.3	143.1	203.4	242.9	280.9	252.9	265.9	307.3
Total	126.1	135.7	163.0	242.3	280.3	308.4	271.3	303.2	352.0
Agriculture	4.9	6.1	6.4	8.4	9.9	9.2	7.3	8.2	11.5
Industry	57.0	57.1	65.7	85.5	94.8	121.1	100.6	117.2	132.2
Manufacturing	37.8	28.0	34.8	48.9	55.5	67.2	68.1	77.3	91.9
Mining and quarrying	2.1	2.4	4.2	6.8	6.9	3.4	1.6	2.7	1.7
Electricity, water and gas	17.1	26.7	26.7	29.8	32.4	50.6	30.9	37.2	38.6
Construction	4.1	5.0	5.1	7.1	8.0	7.1	4.7	4.7	5.5
Services									
Market Services	41.5	49.8	61.0	95.2	115.0	117.6	117.5	128.3	166.0
Financial intermediation	10.0	13.4	17.1	25.0	25.8	25.9	25.7	31.5	45.1
Real estate	14.1	13.5	14.5	20.3	25.4	28.1	30.6	31.9	41.7
Trade and repairs	4.5	6.3	7.7	14.9	22.8	26.2	32.1	34.6	45.4
Hotels and restaurants	1.1	1.0	1.5	2.9	3.2	2.6	3.0	4.1	2.5
Transport and communications	11.8	15.6	20.2	32.1	37.8	34.9	26.1	26.2	31.3
Non-Market Services	18.6	17.7	24.8	46.1	52.5	53.3	41.2	44.8	36.8
Public administration and defense	5.6	6.4	9.7	25.5	29.2	29.6	22.2	24	26.1
Education	2.2	2.3	4.1	6.0	6.5	6.5	5.2	5.7	2.2
Health and social work	3.4	3.5	5.0	7.5	8.6	8.3	5.7	6.7	3.6
Other social services	7.4	5.5	6.0	7.4	8.2	8.9	8.1	8.4	4.9
					(In percent of total)				
Buildings	47.5	43.0	45.5	40.6	41.7	40.0	41.7	36.2	37.4
Machinery	48.3	45.6	47.8	47.9	49.4	52.0	50.4	56.3	56.5
Other	2.2	9.0	4.5	8.2	5.9	5.4	5.1	4.9	3.7
Intangible investment	1.9	2.4	2.2	3.3	3.0	2.6	2.8	2.6	2.4
Memorandum items (in billion Sk, unless otherwise indicated):									
Public	78.4	69.5	79.9	120.0	127.7	129.9	98.4	105.4	114.0
(in percent of total investment)	62.2	51.2	49.0	49.5	45.6	42.1	36.3	34.8	32.4
Private	47.7	66.2	83.1	122.3	152.6	178.5	172.9	197.8	238.0
(in percent of total investment)	37.8	48.8	51.0	50.5	54.4	57.9	63.7	65.2	67.6

Source: Statistical Office of the Slovak Republic.

Table 6. Slovak Republic: Employment by Sector

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
						(In thousands)					
Total economy 1/	2,008.2	2,013.4	2,012.3	1,976.9	2,019.8	2,036.4	2041.0	2,032.0	1,988.0	1,977.0	2006.2
Enterprises with 20 and more employees 2/	1,818.2	1,646.8	1,606.0	1,515.2	1,503.1	1,487.6	1,448.0	1,436.0	1,388.0	1,344.4	1321.5
Agriculture	296.8	245.4	208.9	183.3	170.8	156.7	139.8	126.0	111.0	97.2	90.8
Industry	655.9	576.4	547.4	517.4	521.7	514.0	497.3	484.0	460.0	445.4	443.4
Mining and quarrying	34.1	29.8	24.1	21.4	20.4	21.2	21.3	20.0	17.0	15.2	13.3
Manufacturing	582.7	508.2	478.5	451.4	457.6	448.5	430.8	417.0	395.0	384.3	384.5
Electricity, water and gas	39.0	38.5	44.8	44.6	43.7	44.3	45.2	47.0	48.0	45.9	45.6
Construction	150.5	128.3	106.1	92.6	88.1	85.9	84.5	83.0	70.0	59.0	51.8
Services	329.1	290.8	330.6	311.8	299.6	306.4	305.0	314.0	319.0	302.8	298.1
Financial services and insurance	11.9	15.3	19.8	24.5	27.3	30.6	32.8	34.0	35.0	35.0	34.5
Real estate	84.4	76.6	69.5	62.1	60.3	63.0	60.9	63.0	65.0	60.0	59.9
Trade and repairs	131.3	100.6	88.1	77.5	68.6	71.7	73.7	79.0	83.0	76.8	76.9
Hotels and restaurants	15.5	13.7	12.2	11.4	10.5	10.6	11.0	12.0	12.0	12.0	11.8
Transport and communications	86.0	84.6	141.0	136.3	132.9	130.5	126.6	126.0	124.0	119.0	115
State administration	385.9	405.6	413.0	410.3	422.7	424.7	421.8	429.0	428.0	440.2	437.4
Administration	47.2	59.4	76.9	70.8	78.3	81.1	84.5	84.0	81.0	79.3	79.8
Education	184.4	183.8	168.7	172.3	173.6	174.9	174.4	179.0	180.0	176.6	174.3
Health	116.6	126.2	128.5	127.3	122.3	114.5	110.4	114.0	117.0	118.6	118.3
Other social services	37.7	36.2	38.9	39.9	48.5	54.2	52.5	52.0	50.0	65.7	65
Enterprises with up to 19 employees 3/	6.0	46.6	82.9	106.7	156.7	167.4	155.0	154.0	155.0	180.1	208.5
Private entrepreneurs 4/	184.0	320.0	323.5	355.0	360.0	381.5	437.5	442.0	445.0	452.5	476.2
						(In percent of total employment)					
Total economy	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100
Enterprises with 20 and more employees 2/	90.5	81.8	79.8	76.6	74.4	73.1	70.9	70.7	69.8	68.0	65.9
Agriculture	14.8	12.2	10.4	9.3	8.5	7.7	6.8	6.2	5.6	4.9	4.5
Industry	32.7	28.6	27.2	26.2	25.8	25.2	24.4	23.8	23.1	22.5	22.1
Mining and quarrying	1.7	1.5	1.2	1.1	1.0	1.0	1.0	1.0	0.9	0.8	0.7
Manufacturing	29.0	25.2	23.8	22.8	22.7	22.0	21.1	20.5	19.9	19.4	19.2
Electricity, water and gas	1.9	1.9	2.2	2.3	2.2	2.2	2.2	2.3	2.4	2.3	2.2
Construction	7.5	6.4	5.3	4.7	4.4	4.2	4.1	4.1	3.5	3.0	2.6
Services	16.4	14.4	16.4	15.8	14.8	15.0	14.9	15.5	16.0	15.3	14.9
Financial services and insurance	0.6	0.8	1.0	1.2	1.4	1.5	1.6	1.7	1.8	1.8	1.7
Real estate	4.2	3.8	3.5	3.1	3.0	3.1	3.0	3.1	3.3	3.0	3
Trade and repairs	6.5	5.0	4.4	3.9	3.4	3.5	3.6	3.9	4.2	3.9	3.8
Hotels and restaurants	0.8	0.7	0.6	0.6	0.5	0.5	0.5	0.6	0.6	0.6	0.6
Transport and communications	4.3	4.2	7.0	6.9	6.6	6.4	6.2	6.2	6.2	6.0	5.8
State administration	19.2	20.1	20.5	20.8	20.9	20.9	20.7	21.1	21.5	22.3	21.8
Administration	2.4	3.0	3.8	3.6	3.9	4.0	4.1	4.1	4.1	4.0	4
Education	9.2	9.1	8.4	8.7	8.6	8.6	8.5	8.8	9.1	8.9	8.7
Health	5.8	6.3	6.4	6.4	6.1	5.6	5.4	5.6	5.9	6.0	5.9
Other social services	1.9	1.8	1.9	2.0	2.4	2.7	2.6	2.6	2.5	3.3	3.2
Enterprises with up to 19 employees 3/	0.3	2.3	4.1	5.4	7.8	8.2	7.6	7.6	7.8	9.1	10.4
Private entrepreneurs 4/	9.2	15.9	16.1	18.0	17.8	18.7	21.4	21.8	22.4	22.9	23.7

Sources: Statistical Office of the Slovak Republic; and IMF staff estimates.

1/ Average number of employed, including persons employed by entrepreneurs and entrepreneurs themselves, excluding women on maternity leave, apprentices and armed forces.
2/ Until 1996, the data is for enterprises with 25 and more employees.
3/ Until 1996, the data is for enterprises with up to 24 employees.
4/ Estimate.

Table 7. Slovak Republic: Average Monthly Wages

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
						(In koruny)					
Total economy 1/	3,770	4,543	5,379	6,294	7,195	8,154	9,226	10,003	10,728	11,430	12365
Enterprises with more than 20 employees 2/	3,776	4,483	5,275	6,160	7,144	8,221	9,356	10,212	10,945	11,864	12931
Agriculture	3,771	4,149	4,556	5,191	5,835	6,579	7,363	7,930	8,541	9,354	10070
Industry	3,836	4,535	5,496	6,464	7,477	8,508	9,527	10,371	11,349	12,718	14013
Mining and quarrying	4,445	5,458	6,482	7,383	8,621	9,382	10,485	11,053	12,008	13,438	14428
Manufacturing	3,757	4,370	5,234	6,193	7,194	8,230	9,197	10,001	10,940	12,291	13524
Electricity, water and gas	4,480	6,006	7,767	8,766	9,905	10,902	12,212	13,371	14,515	16,055	18008
Construction	3,845	4,617	5,533	6,502	7,489	8,722	9,970	10,619	10,854	12,037	13266
Services	3,651	4,463	5,579	6,766	8,023	9,520	10,968	12,109	13,087	14,358	15657
Financial services and insurance	5,260	7,667	10,386	11,770	13,529	15,328	17,886	19,487	20,169	22,565	24852
Real estate	3,733	4,516	5,559	6,642	7,883	9,648	10,710	11,970	12,933	13,897	15324
Trade and repairs	3,386	4,049	4,848	5,748	6,848	8,600	10,094	11,122	12,150	13,439	14294
Hotels and restaurants	3,169	3,843	4,474	5,192	5,746	6,958	7,743	8,363	9,087	9,928	10481
Transport and communications	3,840	4,427	5,467	6,634	7,742	8,810	10,089	11,163	12,184	13,216	14515
State administration	3,758	4,584	5,035	5,670	6,576	7,441	8,574	9,241	9,546	9,816	10530
Administration	4,189	5,110	6,179	7,350	8,350	9,818	11,240	12,362	13,005	13,727	14623
Education	3,547	4,448	4,706	5,157	6,205	7,005	7,771	8,247	8,459	9,048	9479
Health	3,942	4,605	4,813	5,443	6,274	6,947	8,373	8,674	8,693	8,902	9914
Other social services	3,683	4,342	4,933	5,626	5,805	6,337	7,372	8,866	9,853	8,812	9445
Enterprises up to 19 employees 3/	2,844	5,118	6,675	9,039	9,074	9,722	11,528	11,422	12,070	11,580	12035
Private entrepreneurs 4/	4,000	4,950	5,850	5,900	6,300	6,773	7,454	8,262	8,970	9,328	10120
Memorandum item:											
Minimum wage	2,000	2,200	2,450	2,450	2,450	2,700	2,700	3,000	3,600	4,400	4920

Sources: Statistical Office of the Slovak Republic, and IMF staff estimates.

1/ Since 1997, the payout associated with profit sharing is not included in the average monthly wage, and, as of January 1998, rewards for standby services are excluded too.
2/ In 1997, for enterprises with 20 or more employees.
3/ Until 1996, for enterprises up to 24 employees.
4/ Estimate.

Table 8. Slovak Republic: Unemployment and Vacancies

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
						(In thousands, end of period)						
Population 1/	5,309	5,289	5,308	5,336	5,356	5,368	5,379	5,388	5,393	5,399	5,403	5,379
Labor force	2,533	2,559	2,503	2,556	2,510	2,544	2,576	2,601	2,607	2,662	2,695	2,696
Employment	2,495	2,257	2,064	1,950	1,976	2,022	2,049	2,057	2,048	1,952	1,995	2,015
Unemployment 2/ 3/	38	302	260	368	371	333	330	325	407	511	482	502
Receiving benefits 2/	25	246	87	123	85	90	94	93	120	145	92	94
Receiving social allowances 2/	...	...	121	140	172	147	135	...	...	...	...	...
Vacancies 2/	14.6	8.2	16.0	8.0	13.0	15.0	14.0	19.0	11.0	5.7	6.0	10.1
						(In percent)						
Participation rate 2/	47.7	48.4	47.2	47.9	46.9	47.3	47.9	48.3	48.3	49.3	49.9	50.1
Unemployment rate 2/ 4/	1.5	11.8	10.4	14.4	14.8	13.1	12.8	12.5	15.6	19.2	17.9	18.6
Vacancy rate 2/	0.6	0.3	0.6	0.3	0.5	0.6	0.5	0.7	0.4	0.2	0.2	0.4

Sources: Statistical Office of the Slovak Republic; and National Labor Office.

1/ Preliminary data for 2000 and 2001.
2/ Data from the National Labor Office.
3/ From 1997 onwards, the data refers to the number of unemployed available for work.
4/ From 1997 onwards, the data is calculated based on the number of unemployed available for work.

Table 9. Slovak Republic: Profits and Losses of Enterprises 1/

	Profits						Loss						Net					
	1996	1997	1998	1999	2000	2001	1996	1997	1998	1999	2000	2001	1996	1997	1998	1999	2000	2001
	(In billions of korany)																	
Total economy	92.5	89.3	80.3	128.3	101.7	131.6	-46.6	-48.5	-69.9	-79.1	-44.6	-32.4	45.9	40.8	10.4	49.2	57.1	99.2
Total economy, without financial services	67.0	71.6	58.2	75.2	79.3	112.3	-33.0	-39.3	-52.8	-52.7	-31.0	-26.0	34.0	32.3	5.4	22.5	48.3	86.3
Agriculture	1.6	2.5	1.7	1.8	1.8	2.5	-4.2	-3.5	-3.1	-3.8	-2.3	-1.9	-2.6	-1.0	-1.4	-2.0	-0.5	0.6
Industry	39.7	39.4	32.7	44.6	46.5	70.7	-19.6	-23.8	-30.3	-23.9	-13.9	-14.4	20.1	15.6	2.4	20.7	32.6	56.3
Mining and quarrying	1.1	1.1	0.9	0.9	1.6	1.8	-0.3	-0.7	-0.3	-0.4	-0.3	-0.2	0.8	0.4	0.6	0.5	1.3	1.6
Manufacturing	18.9	22.2	20.7	26.2	35.5	50.6	-19.2	-22.7	-29.1	-21.2	-13.3	-10.2	-0.3	-0.5	-8.4	5.0	22.2	40.4
Electricity, water and gas	19.7	16.1	11.1	17.5	9.4	18.3	-0.1	-0.4	-0.9	-2.3	-0.3	-4.0	19.6	15.7	10.2	15.2	9.1	14.3
Construction	3.5	4.1	3.2	3.1	2.8	4.1	-1.1	-0.9	-2.0	-2.4	-1.6	-1.5	2.4	3.2	1.2	0.7	1.2	2.6
Services	47.7	43.3	42.7	78.8	50.6	54.3	-21.7	-20.3	-34.5	-49.0	-26.8	-14.6	26.0	23.0	8.2	29.8	23.8	39.7
Services, without financial services	22.2	25.6	20.6	25.7	28.2	35.0	-8.1	-11.1	-17.4	-22.6	-13.2	-8.2	14.1	14.5	3.2	3.1	15.0	26.8
Trade and repairs	8.7	11.1	10.1	12.4	15.9	13.6	-2.7	-2.6	-5.4	-11.0	-3.5	-3.8	6.0	8.5	4.7	1.4	12.4	9.8
Hotels and restaurants	0.5	0.3	0.4	0.6	0.5	0.6	-0.3	-0.3	-0.4	-0.4	-0.2	-0.1	0.2	0.0	0.0	0.2	0.3	0.5
Transport and communications	7.0	8.7	4.6	6.2	5.7	13.1	-2.7	-5.8	-8.2	-7.4	-6.6	-1.6	4.3	2.9	-3.6	-1.2	-0.9	11.5
Financial services 2/	25.5	17.7	22.1	53.1	22.4	19.3	-13.6	-9.3	-17.1	-26.4	-13.6	-6.4	11.9	8.5	5.0	26.7	8.8	12.9
Real estate	5.1	4.2	3.8	5.0	4.8	6.0	-1.1	-1.2	-2.6	-2.7	-2.2	-1.7	4.0	3.0	1.2	2.3	2.6	4.3
Other services	0.9	1.3	1.7	1.5	1.3	1.7	-1.3	-1.2	-0.8	-1.1	-0.7	-1.0	-0.4	0.1	0.9	0.4	0.6	0.7

Source: Statistical Office of the Slovak Republic.

1/ Enterprises with 20 or more employees including subsidized public organizations.

2/ Data for financial intermediaries refer to all enterpirses, rather than only to enterprises with 25 or more employees.

Table 10. Slovak Republic: Number of Enterprises 1/

	1995	1996	1997	1998	1999	2000	2001 2/
Total economy	43,635	47,866	53,819	60,334	58,333	60,920	62,867
Agriculture	1,931	3,603	3,682	3,642	3,419	3,461	3,497
Industry	7,476	7,718	8,463	9,196	8,876	9,249	9,334
Mining and quarrying	80	88	99	105	99	96	97
Manufacturing	7,318	7,541	8,264	8,948	8,639	9,005	9,057
Electricity, water and gas	78	89	100	143	138	148	180
Services	34,228	36,545	41,674	47,496	46,038	48,210	50,036
Financial services and insurance	674	601	563	529	546	563	555
Real estate	6,060	6,916	8,205	9,803	10,206	10,943	11,939
Trade and repairs	20,266	21,232	24,114	27,254	25,392	26,322	27,032
Hotels and restaurants	1,101	1,157	1,307	1,487	1,462	1,564	1,689
Transport and communications	1,613	1,437	1,679	1,926	1,864	2,044	2,135
Other	4,514	5,202	5,806	6,497	6,658	6,774	6,686
Private enterprises	42,054	46,185	52,362	58,970	57,137	59,786	62,038
Public enterprises	1,581	1,681	1,457	1,364	1,196	1,134	829
			(In percent of total)				
Private enterprises	96.4	96.5	97.3	97.7	97.9	98.1	98.7
Public enterprises	3.6	3.5	2.7	2.3	2.1	1.9	1.3

Source: Statistical Office of the Slovak Republic.

1/ Profit-oriented organization, included subsidized ones, for which revenues exceed 50 percent of costs reported.
2/ Estimate.

Table 11. Slovak Republic: GDP Deflator

	1993	1994	1995	1996	1997	1998	1999	2000	2001
					(1995 = 100)				
Domestic demand	80.5	91.5	100.0	105.9	113.4	117.1	127.1	135.6	145.8
Consumption	79.5	91.1	100.0	104.6	112.9	117.0	126.4	138.7	145.9
Private	80.2	91.5	100.0	104.9	111.4	118.0	128.1	141.7	149.6
Public	78.1	90.1	100.0	103.7	116.7	114.9	122.0	131.2	136.7
Investment	83.5	92.8	100.0	109.0	114.4	117.4	128.9	127.6	145.5
Fixed investment	85.6	91.9	100.0	108.6	113.5	118.2	130.6	136.7	144.1
Change in stocks	...	...	...	...	...	...	...	...	...
Net exports of goods and nonfactor services	90.6	81.2	100.0	122.2	139.5	116.7	223.5	1378.6	291.6
Exports of goods and nonfactor services	82.2	92.2	100.0	103.9	103.7	105.8	111.8	125.7	132.5
Imports of goods and nonfactor services	82.9	93.3	100.0	106.7	107.7	107.4	115.6	129.5	140.3
Gross domestic product at market prices	22.0	91.0	100.0	104.4	111.4	117.2	124.7	132.7	139.9
					(Annual percentage change)				
Domestic demand	...	13.7	9.3	5.9	7.0	3.3	8.5	6.7	7.5
Consumption	...	14.6	9.8	4.6	8.0	3.6	8.0	9.7	5.2
Private	...	14.1	9.2	4.9	6.2	5.9	8.6	10.6	5.6
Public	...	15.4	11.0	3.7	12.5	-1.6	6.2	7.5	4.2
Investment	...	11.2	7.7	9.0	4.9	2.6	9.8	-1.0	14.1
Fixed investment	...	7.4	8.8	8.6	4.5	4.2	10.5	4.7	5.5
Change in stocks	...	...	...	...	...	...	...	...	...
Net exports of goods and nonfactor services	...	...	...	...	...	...	...	...	...
Exports of goods and nonfactor services	...	12.1	8.4	3.9	-0.2	2.0	5.6	12.4	5.4
Imports of goods and nonfactor services	...	12.6	7.2	6.7	1.0	-0.4	7.7	12.0	8.4
Gross domestic product at market prices	...	313.2	9.9	4.4	6.7	5.2	6.4	6.4	5.4

Source: IMF staff estimates.

Table 12. Slovak Republic: Consumer Price Index

	1993	1994	1995	1996	1997	1998	1999	2000	2001
					December 1995 = 100				
Total	77.9	88.4	97.1	102.7	109.0	116.3	128.6	144.0	154.6
Food and non-alcoholic beverages	74.0	86.6	97.4	101.4	107.2	113.5	116.5	122.7	129.5
Alcoholic beverages and tobacco	82.9	93.9	98.9	102.2	106.3	118.8	123.9	135.8	140.2
Clothing and footwear	76.6	88.5	96.6	103.5	111.4	120.0	129.0	133.0	136.2
Housing and utilities	84.9	91.7	98.1	102.7	110.1	117.0	151.7	201.0	235.5
Furniture and household equipment	79.3	88.6	96.3	102.1	106.9	114.4	123.4	128.4	127.7
Health	62.0	73.1	89.5	104.5	117.7	125.4	138.6	152.7	155.3
Transport	81.4	89.2	96.6	102.7	108.9	111.6	125.6	145.2	149.8
Recreation	76.2	89.0	97.5	107.7	114.5	123.9	135.4	144.7	151.7
Education	65.5	78.8	90.2	100.2	104.4	101.7	111.0	119.7	125.8
Hotels and Restaurants	74.6	84.8	96.5	102.1	108.6	115.8	125.3	135.0	145.4
Other	81.0	90.3	96.5	101.7	106.7	119.6	130.8	141.8	151.7
					Inflation rate, percent				
Total	23.0	13.5	9.8	5.8	6.1	6.7	10.6	12.0	7.3
Food and non-alcoholic beverages	...	17.0	12.5	4.1	5.7	5.8	2.7	5.2	5.6
Alcoholic beverages and tobacco	...	13.3	5.3	3.3	4.0	11.8	4.3	9.6	3.3
Clothing and footwear	...	15.6	9.2	7.1	7.6	7.8	7.5	3.1	2.4
Housing and utilities	...	8.0	7.0	4.7	7.2	6.3	29.7	32.5	17.2
Furniture and houschold equipment	...	11.7	8.7	6.0	4.7	7.0	7.8	4.1	-0.5
Health	...	17.9	22.4	16.8	12.6	6.8	10.5	10.2	1.7
Transport	...	9.6	8.3	6.3	6.0	2.5	12.5	15.6	3.2
Recreation	...	16.8	9.6	10.5	6.3	8.2	9.3	6.9	4.8
Education	...	20.3	14.5	11.1	4.5	-2.3	9.1	7.9	5.1
Hotels and Restaurants	...	13.7	13.8	5.8	6.3	6.6	8.2	7.7	7.7
Other	...	11.5	6.9	5.4	4.9	12.1	9.4	8.4	6.9

Source: Statistical Office of the Slovak Republic.

Table 13. Slovak Republic: Producer Prices and Energy Prices

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
						(1995 = 100)						
Agriculture	68.6	71.6	76.3	87.4	96.8	100.0	105.4	111.3	111.0	109.0	116.9	126.0
Plant products	70.4	74.0	77.8	93.3	98.1	100.0	109.9	116.8	109.6	106.0	113.6	126.2
Animal products	67.2	69.8	75.1	83.1	95.9	100.0	102.1	108.1	111.7	110.4	118.2	126.0
						(December 1995 = 100)						
Industry	39.4	66.5	70.0	81.9	90.0	98.1	102.2	106.8	110.3	114.5	125.7	134.0
Mining and quarrying	...	76.3	80.2	91.5	96.5	106.1	103.2	105.7	106.2	108.2	121.0	131.3
Manufacturing	...	65.6	68.6	80.7	89.8	98.2	102.6	106.8	110.1	113.8	124.1	129.7
Electricity, gas and water	...	81.0	93.5	102.3	95.8	99.6	99.3	106.9	111.8	118.5	134.1	156.3
						(Average of 1995 = 100)						
Construction												
Works	41.5	57.7	62.7	77.8	86.3	96.7	111.2	122.0	132.7	147.3	160.5	171.4
Materials	39.5	64.7	69.3	78.7	85.9	96.4	103.5	111.4	119.4	121.6	128.9	137.7
						(Annual percentage change)						
Agriculture	...	4.4	6.6	14.5	10.8	3.3	5.4	5.6	-0.3	-1.8	7.2	7.8
Industry	...	68.8	5.3	17.0	9.9	9.0	4.2	4.5	3.3	3.8	9.8	6.6
Construction works	...	39.0	8.7	24.1	10.9	12.1	15.0	9.7	8.8	11.0	9.0	6.8
						(In koruny per unit)						
Petroleum products												
Gasoline, 91 octane (liter)	10.47	16.00	16.22	18.68	18.77	18.18	19.76	21.27	21.22	25.41	33.05	31.40
Gasoline, 95 octane (liter)	11.78	18.00	18.22	19.55	19.69	19.27	20.86	22.33	22.05	26.08	33.48	31.74
Diesel (liter)	9.49	15.00	14.68	15.91	16.25	17.11	18.52	21.02	20.60	24.40	31.95	30.61
Electricity (MWh)												
Households	497.0	845.0	845.0	1,018.0	1,018.0	...	...	...	...	...	...	...
Enterprises	840.0	1,433.0	1,433.0	1,455.0	1,455.0	...	...	...	...	...	...	...
Natural gas (1000 m3)												
Households	900.0	2,075.0	2,075.0	2,190.0	2,190.0	...	...	...	...	...	...	...
Enterprises	2,530.0	3,350.0	3,350.0	3,550.0	3,550.0	...	...	...	...	...	...	...
Central Heating												
Households	21.0	89.0	89.0	120.0	140.0	140.0	140.0	140.0 1/	165.0 2/	245.0 3/	350.0 4/	420.0 5/
Enterprises	140.0	180.0	197.0	200.0	200.0	...	...	...	...	...	...	...

Source: Statistical Office of the Slovak Republic.

1/ From August 1, 1997, the price was Sk 150 per unit.
2/ From January 1, 1998.
3/ From January 1, 1999, the price was Sk 200 per unit; from July 1, 1999, the price was Sk 290 per unit.
4/ From January 1, 2000.
5/ From January 1, 2001.

Table 14. Slovak Republic: General Government Revenue, 1996-2001

	In billions of koruny						In percent of GDP						In percent of total					
	1996	1997	1998	1999	2000	2001 Estimate	1996	1997	1998	1999	2000	2001 Estimate	1996	1997	1998	1999	2000	2001 Estimate
Total revenue	274.5	293.4	304.1	339.5	347.6	351.8	43.7	41.4	39.2	40.6	38.2	35.6	100.0	100.0	100.0	100.0	100.0	100.0
Tax revenue	236.4	251.3	266.1	274.6	303.9	298.8	37.6	35.5	34.3	32.9	33.4	30.2	86.1	85.7	87.5	80.9	87.4	84.9
Indirect taxes	70.3	76.8	78.3	84.1	99.0	102.0	11.2	10.8	10.1	10.1	10.9	10.3	25.6	26.2	25.8	24.8	28.5	29.0
VAT	48.7	54.9	55.3	58.9	70.6	73.6	7.7	7.7	7.1	7.1	7.8	7.4	17.7	18.7	18.2	17.4	20.3	20.9
Excise taxes	21.6	21.9	23.1	25.2	28.5	28.4	3.4	3.1	3.0	3.0	3.1	2.9	7.9	7.5	7.6	7.4	8.2	8.1
Direct taxes	64.9	61.0	68.5	69.1	67.6	65.9	10.3	8.6	8.8	8.3	7.4	6.7	23.6	20.8	22.5	20.4	19.5	18.7
Corporate income tax	34.8	24.4	26.0	23.0	26.4	21.7	5.5	3.4	3.4	2.8	2.9	2.2	12.7	8.3	8.6	6.8	7.6	6.2
Personal income tax	30.1	36.6	42.5	46.1	41.3	44.2	4.8	5.2	5.5	5.5	4.5	4.5	11.0	12.5	14.0	13.6	11.9	12.6
Wage income	20.3	25.6	29.5	31.6	27.3	30.0	3.2	3.6	3.8	3.8	3.0	3.0	7.4	8.7	9.7	9.3	7.9	8.5
Entrepreneurial income	4.7	5.3	5.4	4.6	4.5	4.6	0.8	0.7	0.7	0.6	0.5	0.5	1.7	1.8	1.8	1.4	1.3	1.3
Capital income	5.1	5.7	7.6	9.8	9.5	9.5	0.8	0.8	1.0	1.2	1.0	1.0	1.8	1.9	2.5	2.9	2.7	2.7
Import duties and surcharge	9.9	12.8	11.7	12.5	13.2	3.9	1.6	1.8	1.5	1.5	1.5	0.4	3.6	4.4	3.8	3.7	3.8	1.1
Road tax	1.5	2.5	2.6	2.7	3.1	3.8	0.2	0.4	0.3	0.3	0.3	0.4	0.6	0.9	0.9	0.8	0.9	1.1
Other taxes	4.8	4.2	4.5	4.9	5.2	5.4	0.8	0.6	0.6	0.6	0.6	0.5	1.7	1.4	1.5	1.4	1.5	1.5
Social security contributions	85.0	94.0	100.5	101.3	115.7	117.9	13.5	13.3	13.0	12.1	12.7	11.9	31.0	32.0	33.0	29.8	33.3	33.5
Nontax revenue	38.1	42.1	38.0	64.9	43.7	53.0	6.1	5.9	4.9	7.8	4.8	5.4	13.9	14.3	12.5	19.1	12.6	15.1
Budgetary and subsidized organizations	1.8	2.2	5.3	4.2	10.6	5.8	0.3	0.3	0.7	0.5	1.2	0.6	0.6	0.8	1.7	1.3	3.0	1.7
Interest	1.2	0.7	1.2	1.4	2.8	1.6	0.2	0.1	0.2	0.2	0.3	0.2	0.4	0.2	0.4	0.4	0.8	0.4
Fees and fines	7.1	5.6	5.1	8.0	5.2	7.0	1.1	0.8	0.7	1.0	0.6	0.7	2.6	1.9	1.7	2.4	1.5	2.0
NBS profits	2.4	1.1	1.0	27.7	3.4	5.3	0.4	0.2	0.1	3.3	0.4	0.5	0.9	0.4	0.3	8.2	1.0	1.5
Other	25.7	32.5	25.4	23.4	21.6	33.3	4.1	4.6	3.3	2.8	2.4	3.4	9.4	11.1	8.4	6.9	6.2	9.5

Sources: Data provided by the Slovak Ministry of Finance; and IMF staff estimates.

Table 15. Slovak Republic: General Government Expenditure, 1996-2001

	In billions of koruny						In percent of GDP						In percent of total					
	1996	1997	1998	1999	2000	2001 Estimate	1996	1997	1998	1999	2000	2001 Estimate	1996	1997	1998	1999	2000	2001 Estimate
Total expenditure and net lending	282.2	327.4	340.2	367.5	379.1	391.4	44.9	46.2	43.9	44.0	41.7	39.6	100.0	100.0	100.0	100.0	100.0	100.0
Current expenditure	248.0	276.7	292.9	311.1	338.8	347.9	39.4	39.0	37.8	37.2	37.3	35.2	87.9	84.5	86.1	84.7	89.4	88.9
Consumption	120.5	144.8	141.8	144.2	156.6	167.3	19.2	20.4	18.3	17.3	17.2	16.9	42.7	44.2	41.7	39.2	41.3	42.8
Gross wages	33.2	50.7	56.5	55.8	59.7	63.3	5.3	7.1	7.3	6.7	6.6	6.4	11.8	15.5	16.6	15.2	15.8	16.2
Health care	36.7	45.9	44.7	43.6	48.8	51.3	5.8	6.5	5.8	5.2	5.4	5.2	13.0	14.0	13.1	11.9	12.9	13.1
Education 1/	1.9	2.2	1.5	2.5	2.0	1.8	0.3	0.3	0.2	0.3	0.2	0.2	0.7	0.7	0.5	0.7	0.5	0.5
Other	48.6	46.1	39.0	42.2	46.0	50.9	7.7	6.5	5.0	5.0	5.1	5.1	17.2	14.1	11.5	11.5	12.1	13.0
Subsidies to enterprises	24.0	26.1	26.1	26.3	35.3	25.9	3.8	3.7	3.4	3.1	3.9	2.6	8.5	8.0	7.7	7.1	9.3	6.6
Agriculture	6.0	7.0	6.8	7.6	10.2	7.6	1.0	1.0	0.9	0.9	1.1	0.8	2.1	2.1	2.0	2.1	2.7	2.0
Industry	0.3	0.3	0.3	0.3	0.5	0.5	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1
Transportation	2.9	2.2	2.2	2.2	3.0	2.9	0.5	0.3	0.3	0.3	0.3	0.3	1.0	0.7	0.7	0.6	0.8	0.7
Heating	4.3	4.2	3.4	1.8	0.0	0.0	0.7	0.6	0.4	0.2	0.0	0.0	1.5	1.3	1.0	0.5	0.0	0.0
Other (including state funds)	10.5	12.3	13.3	14.3	21.5	14.8	1.7	1.7	1.7	1.7	2.4	1.5	3.7	3.8	3.9	3.9	5.7	3.8
Interest 2/	12.7	12.3	17.5	23.5	23.7	23.7	2.0	1.7	2.3	2.8	2.6	2.4	4.5	3.8	5.1	6.4	6.3	6.1
Social expenditure	90.8	93.5	107.5	117.2	123.3	131.0	14.4	13.2	13.9	14.0	13.6	13.2	32.2	28.6	31.6	31.9	32.5	33.5
Pensions	46.1	51.0	56.9	61.9	68.3	73.4	7.3	7.2	7.3	7.4	7.5	7.4	16.3	15.6	16.7	16.8	18.0	18.7
Labor policies	7.4	7.1	7.8	7.8	7.8	7.0	1.2	1.0	1.0	0.9	0.9	0.7	2.6	2.2	2.3	2.1	2.0	1.8
Unemployment benefits	7.4	4.0	5.5	7.3	6.2	4.8	1.2	0.6	0.7	0.9	0.7	0.5	2.6	1.2	1.6	2.0	1.6	1.2
Active policies	0.0	3.1	2.3	0.5	1.6	2.2	0.0	0.4	0.3	0.1	0.2	0.2	0.0	0.9	0.7	0.1	0.4	0.6
Sickness benefits	7.4	8.1	9.0	9.5	9.1	8.9	1.2	1.1	1.2	1.1	1.0	0.9	2.6	2.5	2.6	2.6	2.4	2.3
Social assistance	13.7	11.0	16.4	20.5	20.9	21.8	2.2	1.5	2.1	2.5	2.3	2.2	4.8	3.3	4.8	5.6	5.5	5.6
Other state benefits	16.3	16.3	17.5	17.5	17.2	19.9	2.6	2.3	2.3	2.1	1.9	2.0	5.8	5.0	5.1	4.8	4.5	5.1
Investment expenditure	34.9	45.9	44.0	30.8	34.5	37.2	5.6	6.5	5.7	3.7	3.8	3.8	12.4	14.0	12.9	8.4	9.1	9.5
Net lending	-0.6	4.8	3.4	25.6	5.8	6.2	-0.1	0.7	0.4	3.1	0.6	0.6	-0.2	1.5	1.0	7.0	1.5	1.6
Lending 3/	2.0	6.3	3.5	26.8	7.7	8.1	0.3	0.9	0.5	3.2	0.8	0.8	0.7	1.9	1.0	7.3	2.0	2.1
Repayments	2.6	1.4	0.2	1.2	1.9	1.9	0.4	0.2	0.0	0.1	0.2	0.2	0.9	0.4	0.0	0.3	0.5	0.5

Sources: Data provided by the Slovak Ministry of Finance; and IMF staff estimates.

1/ Excludes wages.

2/ From 2000, excluding bank restructuring interest costs.

3/ From 1998, excluding called guarantees.

Table 16. Slovak Republic: Government Financial Assets, 1995–2001

(In millions of koruny, end of period)

	1995	1996	1997	1998	1999	2000	2001
Assets							
Bank accounts of reserve character	473.6	473.6	0.0	0.0	0.0	0.0	0.0
Counterpart deposits on foreign loans	8,341.5	8,341.5	88.8	88.8	269.1 1/	583.4 2/	2,616.2
SAL from the IBRD	793.5	739.5	0.0	0.0	0.0	0.0	0.0
Borrowing from G-24	3,262.9	3,262.9	88.8	88.8	88.8	0.0	0.0
SAL from the IBRD	2,532.0	2,532.0	0.0	0.0	0.0	0.0	0.0
Borrowing from JEXIM BANK	1,753.1	1,753.1	0.0	0.0	0.0	0.0	0.0
loan from EFSAL	0.0	0.0	0.0	0.0	0.0	0.0	2,591.0
Other bank accounts	534.3	534.8	6,971.5	2,934.5	1,239.1	4,524.7	2,790.3
Claims on foreign countries; other than CSOB	52,254.2	49,150.4	52,682.2	52,491.8	56,143.2 3/	62,513.4 4/	60,003.6
Civil; nonconvertible	23,320.9	18,994.8	19,233.1	16,575.2	15,945.6	17,667.0	17,488.7
Civil; convertible	8,771.8	9,341.1	10,065.3	10,940.3	7,313.4	8,042.4	10,002.9
Special; nonconvertible	117.9	120.9	124.2	100.7	103.3	105.9	108.5
Special; convertible	18,338.9	20,325.9	22,970.9	24,748.1	27,529.9	31,353.6	32,403.5
Clearing account: Czech Republic	1,224.7	367.7	288.6	127.5	0.0	0.0	0.0
Other claims, including on FSU	480.0	0.0	0.0	0.0	0.0	0.0	0.0
Claims on foreign countries; CSOB 5/	28,556.9	28,583.8	31,817.0	33,348.7	52,082.8 6/	43,458.4 7/	43,841.6
Nonconvertible	27,555.9	27,534.6	31,817.2	32,747.1	36,837.5	41,964.3	43,170.2
Convertible	1,001.0	1,049.2	699.8	601.5	173.4	317.9	671.4
Participations in international banks	2,171.7	2,308.1	2,435.6	2,720.5	2,966.5 8/	3,423.8 9/	3,641.1
IBEC	324.1	343.0	358.4	380.3	365.1	378.3	367.7
IIB	391.9	414.8	433.4	459.9	441.6	457.6	444.7
EBRD	467.8	511.0	533.8	614.9	741.6	866.3	929.3
World Bank institutions	987.9	1,039.4	1,110.0	1,265.4	1,409.3	1,635.8	1,872.7
Development Bank of Board of Europe	0.0	0.0	0.0	0.0	0.0	0.0	26.7
Deposits with domestic companies	919.1	925.1	3,537.2	3,527.8	24,423.8	20,762.0	113,741.5
Receivables from returnable assistance	1,389.0	3,456.5	2,421.9	3,955.9	5,788.9	6,499.1	6,957.7
Receivables from state guarantees	2,742.1	3,466.6	6,550.5	9,578.6	17,520.1	30,155.4	36,701.5
Securities held by the state	0.1	0.1	0.0	0.0	0.0	0.7	0.7
Receivables towards enterprises from deblocations	...	...	...	...	2,840.6	2,717.7	4,289.0
Other receivables	240.0	240.0	263.0	11,757.5	9,795.4	9,246.8	23,867.1
Total assets	103,323.2 10/	99,705.9 11/	115,269.9 12/	129,655.9 13/	182,647.8 14/	199,419.0 15/	298,450.3 16/
(as a percentage of GDP)	18.2	15.9	16.3	16.7	21.9	21.9	30.2

Source: Data provided by the Slovak Ministry of Finance.

1/ Includes counterpart deposits on foreign loans: "special" of Sk 108.1 million; and counterpart deposits of foreign loans: "civil" of Sk 72.2 million.
2/ Includes counterpart deposits on foreign loans: "special" of Sk 31.2 million; and government deposits of foreign loans: "civil" of Sk 552.2 million.
3/ Includes claims on foreign countries-loans performed and managed by the NBS of Sk 5,248.3 million; and claims on Victnam Socialist Republic of Sk 2.7 million.
4/ Includes claims on foreign countries-loans performed and managed by the NBS of Sk 5, 344.5 million.
5/ CSOB - Ceskoslovenska Obchodni Banka.
6/ Includes claims on foreign countries; CSOB managed by the NBS of Sk 942.3 million; other claims on CSOB of Sk 14,129.6 million.
7/ Includes claims on foreign countries; CSOB managed by the NBS of Sk 975.9 million; other claims on CSOB of Sk 200.3 million.
8/ Includes participation in social development fund of Sk 5.8 million; and in the social development reserve fund of Sk 3.1 million.
9/ Includes participation in social development fund of Sk 11.5 million and in the social development reserve fund of Sk 73.9 million.
10/ Includes issued treasury bills of Sk 5,700.9 million.
11/ Includes issued treasury bills of Sk 1,442.3 million and accounts receivable (Mochovce) of Sk 783.1 million.
12/ Includes issued treasury bills and bonds of Sk 6,053.9 million and accounts receivable (Mochovce) of Sk 2,448.4 million.
13/ Includes issued treasury bills and bonds of Sk 6,324.9 million and accounts receivable (Mochovce) of Sk 2,926.9 million.
14/ Includes issued treasury bills and bonds of Sk 7,338.7 million; accounts receivable (Mochovce) of Sk 2,239.6 million; accounts receivable (Electricity Industry). of Sk 2,840.6 million.
15/ Receivable (Mochovce) of Sk 1,212.4 million; accounts receivable (electricity industry) of Sk 2,717.7 million and CSOB--revolving credit of Sk 10,000.0 million.
16/ Total assets of Sk 298,450.3 million consists of the following classes of assets: bank accounts of Sk 5,406.5 million; claims on foreign countries of Sk 60,003.6 million; claims on foreign countries (CSOB) of Sk 43,841.6; participations in international banks of Sk 3,641.1 million; deposits with domestic companies of Sk 113,741.5; receivables from returnable assistance of Sk 6,657.7 million; receivables from state guarantees of Sk 36,701.5 million; securities held by state of Sk 0.7 million; receivables towards enterprises from deblocations of Sk 4,289.0 million; other receivables of Sk 23,867.1 million.

Table 17. Slovak Republic: Government Financial Liabilities, 1995–2001

(In millions of koruny, end of period)

	1995	1996	1997	1998	1999	2000	2001
Liabilities							
Credit from the NBS	6,871.1	5,495.0	5,495.4	0.0	0.0	0.0	0.0
Due to state lending abroad	0.0	0.0	n.a.	n.a.	0.0	0.0	0.0
Due to exchange rate changes	0.0	0.0	n.a.	n.a.	0.0	0.0	0.0
Direct credit	6,871.1	5,495.0	5,495.4	0.0	n.a.	n.a	n.a
Slovak budget deficit of 1991	6,871.1	n.a.	n.a.	n.a.	n.a.	n.a	n.a
Federal budget deficit of 1992	0.0	n.a.	n.a.	n.a.	n.a.	n.a	n.a
Slovak budget deficit of 1992	0.0	n.a.	n.a.	n.a.	n.a.	n.a	n.a
T-bills issued in 1992	0.0	n.a.	n.a.	n.a.	n.a.	n.a	n.a
Direct credit in 1992	0.0	n.a.	n.a.	n.a.	n.a.	n.a	n.a
Budget deficit of 1993	0.0	n.a.	n.a.	n.a.	n.a.	n.a	n.a
Treasury bills issued in 1993	0.0	n.a.	n.a.	n.a.	n.a.	n.a	n.a
Direct credit in 1993	0.0	n.a.	n.a.	n.a.	n.a.	n.a	n.a
Budget deficit of 1994	0.0	n.a.	n.a.	n.a.	n.a.	n.a	n.a
Treasury bills issued in 1994	0.0	n.a.	n.a.	n.a.	n.a.	n.a	n.a
Direct credit in 1994	0.0	n.a.	n.a.	n.a.	n.a.	n.a	n.a
Credit from commercial banks	3,464.2	2,168.5	1,807.0	1,445.6	1,084.2	722.8	361.4
Related to CSOB	934.3	0.0	0.0	0.0	0.0	0.0	0.0
Investment Bank/KTUK Dolinska	2,529.9	2,168.5	1,807.0	1,445.6	1,084.2	722.8	361.4
Balance of payments support loans	16,485.3	17,472.6	14,962.5	11,730.7	12,180.0	11,553.3	12,387.4
SAL/IBRD	4,457.6	4,784.3	4,695.5	4,429.6	4,437.9	4,265.0	3,635.0
EU	4,757.6	4,945.7	2,366.3	0.0	0.0	0.0	0.0
G-24	3,423.6	3,674.5	1,572.6	522.8	0.0	0.0	0.0
ERL/IBRD	2,377.4	2,551.6	2,782.6	2,953.0	3,240.3	3,317.0	3,118.7
JEXIM BANK	1,469.2	1,516.5	3,545.4	3,825.3	4,501.8	3,971.3	3,068.1
EFSAL/IBRD	0.0	0.0	0.0	0.0	0.0	0.0	2,565.6
Liabilities towards enterprises resulting from the participation on provided credits by state	...	...	...	...	...	...	503.4
Liabilities related to CSOB	14,339.2	11,531.6	10,206.0	7,770.1	5,714.3	5,637.0	185.0
Convertible currencies	9,921.3	7,113.0	4,460.3	2,112.6	35.1	30.0	0.0
Non-convertible currencies	4,417.9	4,418.6	5,745.7	5,657.5	5,679.2	5,607.6	185.0
Issued state bonds	54,325.7	53,894.9	61,683.7 1/	92,303.8 2/	89,515.6 3/	94,760.6 4/	310,997.2
KBV	4,200.0	4,200.0	1,500.0	1,500.0	0.0	0.0	0.0
Rehabilitation bonds	0.0	0.0	23.0	21.2	16.5	11.4	23.9
Budget deficit of 1991	600.0	0.0	0.0	0.0	0.0	0.0	0.0
Bills of exchange; IBRD participation	230.2	230.2	230.0	230.2	230.0	230.2	230.2
Gabcikovo, Turcek, Malinec	3,150.0	0.0	0.0	0.0	0.0	0.0	0.0
Bonds to refinance 1993 deficit	23,080.0	15,100.0	8,970.0	8,350.0	6,040.0	0.0	0.0
Bonds to refinance the 1994 deficit	23,065.5	23,065.5	23,065.5	14,205.5	6,640.0	0.0	0.0
Bonds to finance 1995 deficit	0.0	8,299.2	0.0	0.0	0.0	0.0	0.0
Bonds to finance repayments of state debt principal from 1999	...	...	...	...	...	...	8,770.0
Bonds to finance repayments of state debt principal from 2000	...	...	...	...	...	...	53,920.0
Bonds to finance repayments of state debt principal from 2001 and bank restructuring	...	...	...	...	...	...	168,890.0
State bonds abroad	...	...	...	...	...	...	79,163.1
Bonds for roads	0.0	3,000.0	0.0	0.0	0.0	0.0	0.0
Treasury bills outside NBS	14,830.0	27,000.6	43,053.0	19,940.0	16,127.0	18,429.0	39,375.0
Foreign loans	...	801.7	2,615.5	2,926.9	2,239.6	1,212.4	2,018.1
Mochovce	...	801.7	2,615.5	2,926.9	2,239.6	1,212.4	0.0
Matra Communication	...	...	...	...	...	...	2,018.1
Other liabilities	...	...	...	...	...	...	1,710.7
Total liabilities	110,315.5	118,364.9	149,636.8 5/	177,664.9 6/	192,324.5 7/	224,246.3 8/	367,034.8 9/
(As a percentage of GDP)	19.4	18.8	21.1	22.9	23.0	24.7	37.1
Net assets	-6,992.3	-18,659.0	-34,366.9	-48,009.0	-9,676.7	-24,827.3	-69,087.8
(As a percentage of GDP)	-1.2	-3.0	-4.8	-6.2	-1.2	-2.7	-7.0

Source: Data provided by the Slovak Ministry of Finance.

1/ Includes Sk 27,895 million bonds to refinance the 1996 deficit.

2/ Includes Sk 67,996.9 million bonds to refinance 1998 bonds principal payment.

3/ Includes Sk 15,360 million bonds to refinance 1998 bonds principal payment; Sk 61,229 million bonds to refinance 1999 principal payment.

4/ Includes Sk 25,049 million bonds to refinance 1999 principal payment; Sk 69,470 million bonds to refinance 2000 principal payments.

5/ Includes government loan from Nomura (Sk 6,608.5 million), Matra Communication loan (Sk 2,652.7 million) and foreign loan (Sk 552.3 million).

6/ Includes foreign issued bonds (Nomura) (Sk 37,958.2 million), Matra Communication loan (Sk 2,996.8 million), and foreign loan (Sk 592.6 million).

7/ Includes foreign liabilities abroad-loans of Sk 691.3 million; Matra Communication loan (Sk 2,861.4 million); other liabilities (bonification of the mortgage loans) of Sk 85 million; includes foreign issued bonds of Sk 61,826.1 million.

8/ Includes foreign liabilities abroad loans of Sk 750.8 million; Matra Communication loan (Sk 2,618 million); other liabilities of Sk 1,644.6 million; includes foreign issued bonds of Sk 86,917.2 million.

9/ Total liabilities of Sk 12 387,4 million represent summary of individual liabilities in following classification:credit from commercial banks of Sk 361,4 million, balance of payments support loans of Sk 12,387.4 million, liabilities towards enterprises resulting from the participation on provided credits by the state of Sk 503.4 million, liabilities related to CSOB of Sk 185.0 million, issued state bonds of Sk 310,997.2 million, treasury bills outside NBS 39,375.0 million, foreign loans of Sk 2,018.1 million, other liabilities of Sk 1,710.7 million.

Table 18. Slovak Republic: Fiscal Operations of the Central Government, 1994-2001

(In millions of koruny, unless otherwise indicated)

	1994	1995	1996	1997	1998	1999	2000	2001 Estimate
Total revenue	135,938	154,684	155,908	159,545	166,008	202,971	193,698	189,824
Tax revenue	114,587	136,499	140,129	145,466	152,978	160,437	173,826	165,074
Personal income tax	14,195	19,722	25,455	31,293	36,999	40,233	34,854	37,270
Wage tax	11,241	15,808	20,404	25,642	29,372	30,389	25,399	27,735
Withholding tax on capital income	2,954	3,914	5,051	5,651	7,627	9,844	9,455	9,535
Corporate income tax	30,282	33,667	33,560	23,590	24,701	22,019	25,125	20,213
Indirect taxes	58,263	72,266	70,320	76,749	78,335	84,102	99,029	101,960
VAT	37,138	52,300	48,679	54,877	55,264	58,938	70,577	73,558
Excise taxes	21,125	19,966	21,641	21,872	23,071	25,164	28,453	28,402
Custom duties and import surcharge	7,164	8,754	9,894	12,815	11,664	12,534	13,181	3,923
Social security contributions	4,040	0	0	0	0	0	0	0
Other tax revenue	643	2,090	900	1,019	1,279	1,549	1,638	1,709
Nontax revenue	21,351	18,185	15,779	14,079	13,030	42,534	19,872	24,751
Total expenditure and net lending	135,533	157,063	166,980	176,687	182,413	217,059	208,472	226,447
Current expenditure	101,561	126,911	129,657	136,568	144,732	160,496	175,526	176,179
Wages	16,697	18,805	21,320	33,877	37,929	38,019	40,143	42,301
Social security contributions	0	7,224	8,190	12,670	14,195	13,440	14,297	15,087
Health, education	8,172	8,306	2,395	2,873	2,056	3,027	2,541	2,359
Social expenditure 1/	15,269	26,373	28,523	25,390	31,810	35,866	35,831	39,302
Subsidies to enterprises	13,909	14,301	15,198	16,535	14,430	15,672	25,022	15,799
State equalization allowance	2,535	0	0	0	0	0	0	0
Interest 2/	16,683	12,000	12,101	11,614	16,626	22,434	22,586	20,500
Other current expenditure	28,296	39,902	41,931	33,609	27,686	32,039	35,105	40,831
Capital expenditure	10,368	14,395	20,705	16,290	11,713	8,394	7,026	15,331
Investment projects	8,093	11,952	17,557	12,814	8,841	6,981	4,255	11,593
Transfers to enterprises	2,275	2,443	3,148	3,476	2,872	1,413	2,772	3,738
Intragovernmental transfers	26,121	16,429	19,082	18,889	26,026	25,603	26,515	35,645
To local authorities	1,080	1,190	1,266	1,443	1,801	1,888	2,161	2,393
To social security sector	22,522	11,956	13,725	11,007	11,680	12,179	12,285	17,913
To state funds	2,519	3,282	4,091	6,440	12,545	11,535	12,070	15,340
Net lending 3/	-2,517	-672	-2,464	4,941	-58	22,566	-595	-708
State budget overall balance	405	-2,379	-11,072	-17,142	-16,405	-14,088	-14,775	-36,622
In percent of GDP	0.1	-0.4	-1.9	-2.5	-2.2	-1.7	-1.6	-3.7

Sources: Data provided by the Slovak Ministry of Finance; and IMF staff estimates.

1/ Includes social assistance and social benefits.

2/ From 2000, excluding bank restructuring interest costs.

3/ From 1998, excluding called guarantees. In 2001, excludes Sk 300 million repayment from the Slovak Consolidation Agency.

Table 19. Slovak Republic: Fiscal Operations of the Social Security Funds, 1996-2001 1/

	1996	1997	1998	1999	2000	2001 Estimate	1996	1997	1998	1999	2000	2001 Estimate
	(In millions of koruny)						(In percent of GDP)					
Health Fund												
Revenue	36,201	39,507	41,286	41,329	45,855	48,704	5.8	5.6	5.3	4.9	5.0	4.9
Contributions	34,449	37,581	39,737	40,959	43,483	48,001	5.5	5.3	5.1	4.9	4.8	4.9
Other	1,752	1,925	1,549	370	2,372	704	0.3	0.3	0.2	0.0	0.3	0.1
Expenditure	36,229	45,221	44,211	43,166	48,272	50,281	5.8	6.4	5.7	5.2	5.3	5.1
Balance	-28	-5,715	-2,925	-1,837	-2,417	-1,577	0.0	-0.8	-0.4	-0.2	-0.3	-0.2
Sickness Fund												
Revenue	7,946	10,181	10,722	10,640	10,672	14,455	1.3	1.4	1.4	1.3	1.2	1.5
Contributions	7,310	9,578	9,817	10,001	10,362	11,970	1.2	1.4	1.3	1.2	1.1	1.2
Other	636	604	905	638	310	2,486	0.1	0.1	0.1	0.1	0.0	0.3
Expenditure	8,166	9,257	10,130	10,567	10,148	10,090	1.3	1.3	1.3	1.3	1.1	1.0
Balance	-220	924	592	73	524	4,365	0.0	0.1	0.1	0.0	0.1	0.4
Pension Fund												
Revenue	51,568	52,106	57,204	57,184	67,578	70,285	8.2	7.4	7.4	6.8	7.4	7.1
Contributions	50,932	51,503	56,299	56,546	67,268	67,800	8.1	7.3	7.3	6.8	7.4	6.9
Other	636	604	905	638	310	2,486	0.1	0.1	0.1	0.1	0.0	0.3
Expenditure	46,866	52,142	58,037	62,940	69,317	74,590	7.5	7.4	7.5	7.5	7.6	7.5
Balance	4,702	-36	-833	-5,757	-1,739	-4,305	0.7	0.0	-0.1	-0.7	-0.2	-0.4
Employment Fund												
Revenue	8,219	8,547	9,026	8,846	10,969	12,093	1.3	1.2	1.2	1.1	1.2	1.2
Contributions	7,157	7,536	8,030	7,937	8,659	9,390	1.1	1.1	1.0	0.9	1.0	0.9
Other	1,062	1,011	996	909	2,310	2,703	0.2	0.1	0.1	0.1	0.3	0.3
Expenditure	7,695	8,818	8,977	9,116	9,202	8,632	1.2	1.2	1.2	1.1	1.0	0.9
of which: contributions 2/	1,125	1,187	1,736	1,953	1,750	1,339	0.2	0.2	0.2	0.2	0.2	0.1
Balance	524	-271	49	-270	1,767	3,460	0.1	0.0	0.0	0.0	0.2	0.3
Total												
Revenue	102,809	109,154	116,502	116,045	133,323	144,199	16.4	15.4	15.0	13.9	14.7	14.6
Contributions	98,722	105,011	112,146	113,490	128,022	135,821	15.7	14.8	14.5	13.6	14.1	13.7
Other	4,087	4,143	4,355	2,555	5,302	8,377	0.7	0.6	0.6	0.3	0.6	0.8
Expenditures	97,832	114,252	119,618	123,836	135,188	142,255	15.6	16.1	15.4	14.8	14.9	14.4
Balance	4,977	-5,098	-3,116	-7,791	-1,865	1,944	0.8	-0.7	-0.4	-0.9	-0.2	0.2

Sources: Data provided by the Public Expenditure Department at the Slovak Ministry of Finance; and IMF staff estimates and projections.

1/ The social security funds include health insurance companies, sickness fund of the Social Insurance Agency, pension fund of the Social Insurance Agency, and the National Labor Office.

2/ Contributions made by the National Labor Office to the health, sickness and pension funds on behalf of unemployed persons.

Table 20. Slovak Republic: Fiscal Operations of the State Funds in 1998-2001

In millions of koruny

	Own revenue	Transfers from Budget	Total Revenue	Current Expenditure	Capital Expenditure 1/	Total Expenditure	Balance
1998							
Environment Fund	985.9	150.0	1,135.9	120.3	967.2	1,087.5	48.4
Fund for Culture "Pro Slovakia"	84.4	140.1	224.5	194.3	21.6	215.9	8.6
Fund for Physical Culture	291.0	17.5	308.5	305.5	0.1	305.6	2.9
Health Fund	23.8	30.0	53.8	21.1	31.7	52.8	1.0
Fund for Market Regulation in Agriculture	1,555.5	834.0	2,389.5	2,275.6	-322.0	1,953.6	435.8
Road Fund	1,794.1	5,800.5	7,594.6	3,791.3	12,641.0	16,432.3	-8,837.7
Forestry Fund	59.0	488.9	547.9	537.9	0.2	538.0	9.9
Fund for Agricultural Land Protection	1,022.7	0.0	1,022.7	130.8	795.5	926.3	96.5
Fund for Water Management	601.6	188.2	789.8	197.7	554.7	752.4	37.4
Financial Support Fund for Agriculture	1,026.8	0.0	1,026.8	750.8	90.0	840.8	186.0
Nuclear Waste Fund	2,972.3	150.0	3,122.3	701.6	1,003.1	1,704.7	1,417.6
Housing Fund	273.0	4,746.0	5,019.0	38.1	7,156.7	7,194.8	-2,175.8
State funds, total	10,690.1	12,545.1	23,235.3	9,064.9	22,939.7	32,004.6	-8,769.4
1999							
Environment Fund	717.7	140.0	857.7	64.6	793.1	857.7	0.0
Fund for Culture "Pro Slovakia"	8.8	80.0	88.8	88.8	0.0	88.8	0.0
Fund for Physical Culture	273.0	18.0	291.0	291.0	0.0	291.0	0.0
Health Fund	233.0	23.0	256.0	26.5	216.6	243.2	12.8
Fund for Market Regulation in Agriculture	1,249.7	940.0	2,189.7	1,497.2	3.5	1,500.7	689.0
Road Fund	2,007.5	6,080.0	8,087.5	4,353.4	10,733.4	15,086.8	-6,999.3
Forestry Fund	39.5	345.6	385.1	377.9	0.0	377.9	7.2
Fund for Agricultural Land Protection	941.5	0.0	941.5	317.9	404.3	722.2	219.3
Fund for Water Management	407.6	144.0	551.6	102.0	418.9	520.9	30.7
Financial Support Fund for Agriculture	1,107.2	0.0	1,107.2	667.1	146.8	813.9	293.3
Nuclear Waste Fund	3,116.1	64.5	3,180.6	497.0	645.3	1,142.3	2,038.3
Housing Fund	596.9	3,700.0	4,296.9	628.4	3,644.4	4,272.8	24.1
State funds, total	10,698.4	11,535.1	22,233.5	8,911.8	17,006.3	25,918.1	-3,684.6
2000							
Environment Fund	740.2	540.0	1,280.2	84.7	1,158.3	1,243.0	37.2
Fund for Culture "Pro Slovakia"	13.7	72.0	85.7	80.4	0.7	81.1	4.5
Fund for Physical Culture	2.0	415.2	417.2	415.2	0.8	416.0	1.2
Health Fund	43.4	20.7	64.1	15.8	44.2	60.0	4.1
Fund for Market Regulation in Agriculture	1,178.1	2,140.0	3,318.1	1,322.9	516.5	1,839.4	1,478.7
Road Fund	2,439.1	4,334.8	6,773.9	4,865.3	9,523.0	14,388.4	-7,614.4
Forestry Fund	73.7	520.0	593.7	453.9	0.1	454.0	139.7
Fund for Agricultural Land Protection	488.3	0.0	488.3	104.8	287.7	392.5	95.8
Fund for Water Management	469.9	150.0	619.9	153.5	434.3	587.9	32.0
Financial Support Fund for Agriculture	585.0	30.0	615.0	847.6	176.7	1,024.2	-409.2
Nuclear Waste Fund	2,537.8	56.4	2,594.2	136.4	356.0	492.5	2,101.7
Housing Fund	243.7	3,790.7	4,034.4	65.6	3,243.9	3,309.4	725.0
State funds, total	8,814.8	12,069.9	20,884.7	8,546.1	15,742.4	24,288.4	-3,403.7
2001							
Environment Fund	866.8	188.5	1,055.3	55.2	1,394.1	1,449.3	-394.0
Fund for Culture "Pro Slovakia"	0.0	78.4	78.4	77.8	0.0	77.8	0.7
Fund for Physical Culture	5.1	454.3	459.4	458.8	0.0	458.8	0.6
Health Fund	216.5	0.0	216.5	11.6	37.6	49.2	167.3
Fund for Market Regulation in Agriculture	1,844.7	300.0	2,144.7	4,038.0	891.9	4,929.9	-2,785.2
Road Fund	2,078.2	11,043.5	13,121.7	4,430.4	9,327.7	13,758.1	-636.4
Forestry Fund	57.7	366.2	423.9	532.2	0.2	532.4	-108.5
Fund for Agricultural Land Protection	820.8	0.0	820.8	111.2	324.1	435.4	385.4
Fund for Water Management	415.4	150.0	565.4	192.9	373.1	566.0	-0.6
Financial Support Fund for Agriculture	700.2	0.0	700.2	496.5	275.0	771.5	-71.3
Nuclear Waste Fund	3,007.1	59.3	3,066.4	86.4	573.3	659.7	2,406.7
Housing Fund	348.8	2,700.0	3,048.8	52.8	3,445.2	3,498.0	-449.2
State funds, total	10,361.2	15,340.3	25,701.5	10,543.6	16,642.4	27,186.0	-1,484.5

Sources: Data provided by the Slovak Ministry of Finance; and IMF staff estimates.

1/ Includes net lending.

Table 21: Slovak Republic: Monetary Survey 1998-2002

	1998	1999				2000				2001				2002
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
						(In billions of koruna)								
Net foreign assets	43.5	44.1	31.1	32.4	46.5	51.5	54.4	114.0	93.2	79.0	88.8	77.4	92.0	98.7
Net domestic assets	429.2	437.6	460.0	465.1	480.2	488.7	494.7	480.9	514.7	534.2	532.0	563.9	587.9	565.3
Domestic credit	530.1	557.6	576.6	583.1	575.5	581.2	590.4	584.9	610.2	631.4	633.7	666.8	691.6	687.5
Net credit to government	138.6	158.4	168.5	173.9	165.2	168.1	174.5	183.4	199.8	310.0	313.2	327.1	345.4	368.2
Net credit to Property Fund	0.2	0.8	1.1	1.5	1.2	1.9	1.8	-14.1	0.1	2.9	-0.8	8.6	10.4	6.2
Credit to enterprises and households	391.3	398.4	407.0	407.7	409.1	411.2	414.1	415.6	410.3	318.5	321.3	331.1	335.8	313.1
In domestic currency	346.9	347.9	352.2	352.7	356.9	359.0	365.1	362.1	359.8	268.2	270.0	278.0	282.3	258.4
In foreign currency	44.4	50.5	54.8	55.0	52.2	52.2	49.0	53.5	50.5	50.3	51.3	53.1	53.5	54.7
Other items, net	-100.9	-120.0	-116.6	-118.0	-95.3	-92.5	-95.7	-104.0	-95.5	-97.2	-101.7	-102.9	-103.7	-122.2
Broad Money	472.7	481.7	491.1	497.5	526.7	540.2	549.1	594.9	607.9	613.2	620.8	641.3	679.9	664.0
Koruna M2	404.2	409.8	414.6	421.9	450.6	463.6	470.7	488.5	513.6	518.6	523.4	539.8	574.8	563.0
Foreign currency deposits	68.5	71.9	76.5	75.6	76.1	76.6	78.4	106.4	94.3	94.6	97.4	101.5	105.1	101
						Memorandum items (percent change, 12-month)								
Broad money	4.2	8.4	8.8	10.8	11.4	12.1	11.8	19.6	15.4	13.5	13.1	7.8	11.8	8.3
Koruna M2	-0.6	3.7	4.2	8.9	11.5	13.1	13.5	15.8	14.0	11.9	11.2	10.5	11.9	8.6
Net foreign assets	-38.3	-38.9	-57.5	-37.1	6.9	16.8	74.9	251.9	100.4	53.4	63.2	-32.1	-1.3	24.9
Net domestic assets	12.1	17.6	21.6	17.0	11.9	11.7	7.5	3.4	7.2	9.3	7.5	17.3	14.2	5.8
Domestic credit	13.1	19.1	19.3	15.1	8.6	4.2	2.4	0.3	6.0	8.6	7.3	14.0	13.3	8.9
Credit to enterprises and households	5.8	6.7	7.4	5.4	4.5	3.2	1.7	1.9	0.3	-22.5	-22.4	-20.3	-18.2	-1.7
Credit to enterprises and households (adjusted for bank restructuring) 1/	...	...	...	...	...	3.5	3.0	4.9	4.5	4.1	3.1	3.3	5.3	6.9

Sources: National Bank of Slovakia; and IMF staff estimates.

1/ Adjusted for commercial bank bankruptcies and restructuring costs of selected banks in 2001.

Table 22. Slovak Republic: Monetary Base, 1998–2002

(In billions of koruny; average of the month; unless otherwise indicated)

	1998	1999				2000				2001				2002
	Dec.	March	June	Sep.	Dec.	March	June	Sep.	Dec.	March	June	Sep.	Dec.	March
Net foreign assets	76.9	85.2	95.7	96.1	118.4	136.5	157.9	186.8	177.8	175.3	168.7	167.8	190.1	201.5
Foreign assets	107.9	117.8	129.2	120.7	144.6	162.0	184.8	208.4	193.2	189.8	183.0	182.0	203.0	225.8
Foreign liabilities	31.0	32.6	33.5	24.6	26.2	25.5	26.9	21.6	15.4	14.5	14.3	14.2	12.9	24.3
Net credit to government	-5.3	-7.9	-18.1	-15.5	-18.7	-25.2	-25.1	-18.4	-12.1	-15.5	-21.8	-17.3	-13.3	-11.1
Credit to banks and open market operations	12.2	12.2	8.9	5.3	-4.9	-22.8	-39.3	-57.0	-55.7	-69.3	-54.9	-42.2	-68.0	-73.1
Of which														
government securities	10.7	11.7	8.6	5.2	1.8	5.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other items net	7.0	8.5	9.2	11.1	22.3	17.9	18.0	-0.1	3.6	12.3	12.7	6.8	4.9	-1.9
Reserve money	90.8	98.0	95.7	97.0	117.1	106.4	111.5	111.3	113.6	102.8	104.7	115.1	113.7	115.4
Currency in circulation	58.4	57.5	58.2	57.7	67.8	61.1	66.5	70.1	76.3	72.6	77.3	81.0	91.5	88.8
Reserves	32.4	40.5	37.5	39.3	49.3	45.3	45.0	41.2	37.3	30.2	27.4	34.1	22.2	26.6
Required	38.8	40.7	38.6	38.8	38.5	40.7	42.3	36.7	38.7	29.6	31.7	31.5	32.3	26.8
Excess	-6.4	-0.2	-1.1	0.5	10.8	4.6	2.7	4.5	-1.4	0.6	-4.3	2.6	-10.1	-0.2
Memorandum item:														
Official reserves in U.S.$ million, EOP	2923	2814	2953	2935	3425	3487.6	4070	4214	4077	3863	3716	3846	4189	4763

Source: National Bank of Slovakia.

Table 23. Slovak Republic: Selected Interest Rates, 1999–2002

(Average in each period, in percent per annum)

	1999				2000				2001				2002
	March	June	Sep.	Dec.	March	June	Sep.	Dec.	March	June	Sep.	Dec.	March
Deposits													
Total	10.5	10.9	10.3	9.9	8.6	7.4	6.0	5.6	5.4	5.2	5.0	4.9	4.8
Sight deposits	3.8	3.8	3.8	3.8	3.8	3.6	3.3	3.1	2.6	2.6	2.5	2.5	2.3
Term deposits	12.9	13.4	12.4	12.1	10.1	8.6	7.0	6.6	6.3	6.1	6.1	5.9	5.8
7 days	14.3	16.1	13.0	12.1	8.5	7.2	6.4	6.0	6.7	5.6	6.4	5.8	5.6
One month	14.9	16.1	13.9	13.8	9.6	7.7	3.4	6.2	5.8	6.0	5.8	5.7	5.9
One year	12.3	12.5	12.3	12.3	11.3	10.4	8.1	7.4	6.8	6.6	6.4	6.3	6.1
New credits													
Total	17.2	19.1	16.5	12.6 1/	14.2	10.9 2/	11.2	10.8	9.9	10.4	10.2	9.8	9.5
Short-term	17.4	19.3	16.8	16.4	14.5	10.9 2/	11.2	10.7	9.8	9.1	9.0	8.8	9.0
Medium-term	12.5	17.6	13.3	10.4 1/	10.4	10.8	11.1	11.6	10.8	10.2	9.9	9.9	9.9
Long-term	11.9	12.6	13.6	14.1	11.0	9.3	10.1	9.6	8.8	9.3	9.8	10.1	8.5

Source: National Bank of Slovakia.

1/ Including loans reclassified as part of the restructuring process, in the amount of Sk 61.7 billion, at an interest rate of 10.3 percent (medium-term loans).

2/ Including loans reclassified as part of the (second stage of) the restructuring process, in the amount of Sk 30.9 billion, at an interest rate of 10.3 percent (short-term loans).

Table 24. Slovak Republic: Balance of Payments, 1995--2001

(In millions of U.S. dollars)

	1995	1996	1997	1998	1999	2000	2001
Trade balance	-228	-2,293	-2,081	-2,353	-1,093	-897	-2,135
Exports, f.o.b.	8,579	8,831	9,639	10,720	10,229	11,914	12,632
Imports, f.o.b.	-8,807	-11,124	-11,720	-13,074	11,322	12,812	14,766
Services balance	540	36	74	20	218	440	480
Receipts	2,376	2,068	2,170	2,295	2,063	2,247	2,490
Payments	-1,836	-2,032	-2,096	-2,275	-1,845	-1,807	-2,010
Income balance	-14	-45	-122	-157	-301	-353	-313
Current transfers	92	203	175	367	196	118	212
Current account	391	-2,098	-1,953	-2,124	-979	-693	-1,756
Capital transfers	46	30	0	71	160	91	78
Foreign investment, net	380	295	121	1,107	1,379	2,751	1,243
Direct investment	134	199	95	314	756	1,914	1,460
Portfolio investment	246	96	26	793	623	837	-217
Medium and long-term credits	394	986	1,146	796	301	-344	-47
Credits extended, net	69	136	107	167	16	-84	-38
Credits received, net	325	849	1,039	629	285	-261	-8
Disbursements	1,052	2,033	2,226	1,843	1,511	1,543	1,119
Repayments	-726	-1,184	-1,187	-1,214	-1,226	-1,804	-1,127
Short-term capital, net	91	882	581	27	84	-1099	619
Capital account	994	2,192	1,848	2,000	1,924	1,398	1,894
Errors and omissions	385	268	-31	-171	-390	74	-26
Overall balance	1,771	362	-137	-295	555	779	112
Financing	-1,771	-362	137	295	-555	-779	-112
Gross reserves (increase, -)	-1,579	-237	188	362	-502	-652	-112
Use of Fund credit, net	-192	-125	-52	-67	-53	-127	0

Sources: National Bank of Slovakia; and IMF staff estimates.

Table 25. Slovak Republic: Foreign Trade, 1993–2001

(In millions of U.S. dollars)

	1993	1994	1995	1996	1997	1998	1999	2000	2001
Exports f.o.b	5,447	6,691	8,579	8,831	9,639	10,720	10,229	11,914	12,691
Developed countries	1,783	2,632	3,510	3,925	4,937	6,408	6,439	7,548	8,012
Of which:									
European Union 1/	1,609	2,340	3,208	3,644	4,538	5,955	6,082	7,011	7,602
Austria	271	351	426	534	692	790	824	993	1,028
France	87	113	171	187	231	369	490	550	495
Germany	828	1,144	1,613	1,871	2,284	3,084	2,830	3,176	3,427
Italy	148	288	413	431	576	760	903	1,090	1,117
United Kingdom	55	86	112	136	160	165	179	227	315
EFTA 2/	40	56	85	106	124	194	197	251	228
Other developed countries 3/	134	236	217	175	275	259	160	286	181
Of which:									
Japan	8	6	18	19	12	12	14	12	13
United States	60	108	107	119	156	150	145	170	169
Developing countries	288	338	371	387	213	183	495	243	390
Of which:									
China	66	23	17	39	11	4	194	9	13
India	15	61	67	65	43	17	0	53	38
Economies in Transition 4/	3,371	3,721	4,697	4,519	4,480	4,073	3,295	4,107	4,277
CEFTA countries 5/	2,716	3,059	3,799	3,658	3,582	3,416	3,060	3,651	3,807
Of which:									
Czech Republic	2,310	2,502	3,024	2,738	2,471	2,175	2,058	2,383	2,107
Hungary	247	366	391	403	433	470	460	577	685
Poland	159	189	378	427	507	586	542	691	736
BRO countries 6/	453	467	612	641	712	496	235	327	343
Of which:									
Russia	256	278	331	308	333	205	102	106	127
Ukraine	140	117	191	236	269	198	133	147	152
Other transition economies	202	195	286	220	186	161	0	129	127
Others and nonspecified	5	0	1	0	9	56	0	16	13

Table 25. Slovak Republic: Foreign Trade, 1993–2001 (concluded)

(In millions of U.S. dollars)

	1993	1994	1995	1996	1997	1998	1999	2000	2001
Imports f.o.b.	6,334	6,611	8,771	11,123	11,720	13,074	11,321	12,812	14,685
Developed countries	2,109	2,646	3,674	5,023	5,962	7,440	6,491	7,093	8,047
Of which:									
European Union 1/	1,769	2,210	3,049	4,147	5,109	6,501	5,854	6,257	7,313
Austria	394	382	448	538	582	604	547	503	602
France	96	148	215	360	419	499	437	428	573
Germany	723	888	1,252	1,625	2,297	3,334	2,963	3,201	3,627
Italy	190	290	406	663	681	837	803	788	940
United Kingdom	80	106	148	210	279	267	251	309	305
EFTA 2/	96	104	166	183	181	206	168	182	220
Other developed countries 3/	244	332	459	693	672	733	470	654	514
Of which:									
Canada	18	12	20	29	41	35	0	19	15
Japan	73	82	131	205	192	212	180	215	235
United States	112	188	215	300	362	378	290	264	279
Developing countries	195	221	348	468	584	687	659	238	940
Of which:									
Brazil	9	16	16	19	21	20	0	18	29
China	30	38	58	82	114	150	657	177	235
India	9	18	31	27	20	18	0	23	29
Economies in Transition 4/	4,024	3,737	4,736	5,616	5,160	4,873	4,171	5,481	5,698
CEFTA countries 5/	2,533	2,297	2,973	3,315	3,204	3,267	2,668	3,061	3,304
Of which:									
Czech Republic	2,275	1,958	2,434	2,708	2,493	2,379	2,092	2,402	2,217
Hungary	85	111	193	222	242	317	260	268	382
Poland	123	158	243	271	298	323	317	391	470
BRO countries 6/	1,438	1,378	1,672	2,207	1,910	1,550	1,506	2,420	2,379
Of which:									
Russia	1,237	1,191	1,456	1,934	1,573	1,281	1,359	2,177	2,173
Ukraine	152	119	123	173	284	239	147	189	191
Other transition economies	97	110	161	176	46	56	0	0	15
Others and nonspecified	7	6	13	16	14	74	0	0	0

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

1/ EU-15 for all years.

2/ The European Free Trade Association (EFTA) consists of Iceland, Liechtenstein, Norway and Switzerland.

3/ OECD members as of end-1993 (i.e., excludes CEFTA members).

4/ All formerly centrally planned economies.

5/ The Central European Free Trade Association (CEFTA) includes the Czech Republic, Slovak Republic, Hungary, Poland, Slovenia, Romania and Bulgaria. However, trade with Romania is not included here.

6/ Former Soviet Union countries.

Table 26. Slovak Republic: Shares of Partners in Foreign Trade, 1993–2001

(In percent of total)

	1993	1994	1995	1996	1997	1998	1999	2000	2001
Exports f.o.b.									
Developed countries	32.7	39.3	40.9	44.4	51.2	59.8	63.0	63.4	63.1
European Union 1/	29.5	35.0	37.4	41.3	47.1	55.5	59.5	58.8	59.9
Austria	5.0	5.3	5.0	6.0	7.2	7.4	8.1	8.3	8.1
France	1.6	1.7	2.0	2.1	2.4	3.4	4.8	4.6	3.9
Germany	15.2	17.1	18.8	21.2	23.7	28.8	27.7	26.7	27.0
Italy	2.7	4.3	4.8	4.9	6.0	7.1	8.8	9.1	8.8
United Kingdom	1.0	1.3	1.3	1.5	1.7	1.5	1.8	1.9	2.5
EFTA 2/	0.7	0.8	1.0	1.2	1.3	1.8	1.9	2.1	1.8
Other developed countries 3/	2.5	3.5	2.5	2.0	2.9	2.4	1.6	2.4	1.4
Of which :									
Japan	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1
United States	1.1	1.6	1.3	1.3	1.6	1.4	1.4	1.4	1.3
Developing countries	5.3	5.1	4.3	4.4	2.2	1.7	4.8	2.0	3.1
Of which :									
China	1.2	0.3	0.2	0.4	0.1	0.0	1.9	0.1	0.1
India	0.3	0.9	0.8	0.7	0.4	0.2	0.0	0.4	0.3
Economies in Transition 4/	61.9	55.6	54.8	51.2	46.5	38.0	32.2	34.5	33.7
CEFTA countries 5/	49.9	45.7	44.3	41.4	37.2	31.9	29.9	30.6	30.0
Of which :									
Czech Republic	42.4	37.4	35.3	31.0	25.6	20.3	20.1	20.0	16.6
Hungary	4.5	5.5	4.6	4.6	4.5	4.4	4.5	4.8	5.4
Poland	2.9	2.8	4.4	4.8	5.3	5.5	5.3	5.8	5.8
BRO countries 6/	8.3	7.0	7.1	7.3	7.4	4.6	2.3	2.7	2.7
Of which :									
Russia	4.7	4.1	3.9	3.5	3.5	1.9	1.0	0.9	1.0
Ukraine	2.6	1.7	2.2	2.7	2.8	1.8	1.3	1.2	1.2
Other transition economies	3.7	2.9	3.3	2.5	1.9	1.5	0.0	1.1	1.0
Others and nonspecified	0.1	0.0	0.0	0.0	0.1	0.5	0.0	0.1	0.1

Table 26. Slovak Republic: Shares of Partners in Foreign Trade, 1993–2001 (concluded)

(In percent of total)

	1993	1994	1995	1996	1997	1998	1999	2000	2001
Imports, f.o.b.									
Developed countries	33.3	40.0	41.9	45.2	50.9	56.9	57.3	55.4	54.8
European Union 1/	27.9	33.4	34.8	37.3	43.6	49.7	51.7	48.8	49.8
Austria	6.2	5.8	5.1	4.8	5.0	4.6	4.8	3.9	4.1
France	1.5	2.2	2.4	3.2	3.6	3.8	3.9	3.3	3.9
Germany	11.4	13.4	14.3	14.6	19.6	25.5	26.2	25.0	24.7
Italy	3.0	4.4	4.6	6.0	5.8	6.4	7.1	6.2	6.4
United Kingdom	1.3	1.6	1.7	1.9	2.4	2.0	2.2	2.4	2.1
EFTA 2/	1.5	1.6	1.9	1.6	1.5	1.6	1.5	1.4	1.5
Other developed countries 3/	3.9	5.0	5.2	6.2	5.7	5.6	4.2	5.1	3.5
Of which :									
Canada	0.3	0.2	0.2	0.3	0.3	0.3	0.0	0.1	0.1
Japan	1.2	1.2	1.5	1.8	1.6	1.6	1.6	1.7	1.6
United States	1.8	2.8	2.5	2.7	3.1	2.9	2.6	2.1	1.9
Developing countries	3.1	3.3	4.0	4.2	5.0	5.3	5.8	1.9	6.4
Of which :									
Brazil	0.1	0.2	0.2	0.2	0.2	0.2	0.0	0.1	0.2
China	0.5	0.6	0.7	0.7	1.0	1.1	5.8	1.4	1.6
India	0.1	0.3	0.4	0.2	0.2	0.1	0.0	0.2	0.2
Economies in Transition 4/	63.5	56.5	54.0	50.5	44.0	37.3	36.8	42.8	38.8
CEFTA countries 5/	40.0	34.7	33.9	29.8	27.3	25.0	23.6	23.9	22.5
Of which :									
Czech Republic	35.9	29.6	27.8	24.3	21.3	18.2	18.5	18.8	18.8
Hungary	1.3	1.7	2.2	2.0	2.1	2.4	2.3	2.1	2.6
Poland	1.9	2.4	2.8	2.4	2.5	2.5	2.8	3.1	3.2
BRO countries 6/	22.7	20.8	19.1	19.8	16.3	11.9	13.3	18.9	16.2
Of which :									
Russia	19.5	18.0	16.6	17.4	13.4	9.8	12.0	17.0	14.8
Ukraine	2.4	1.8	1.4	1.6	2.4	1.8	1.3	1.5	1.3
Other transition economies	1.5	1.7	1.8	1.6	0.4	0.4	0.0	0.0	0.1
Others and nonspecified	0.1	0.1	0.1	0.1	0.1	0.6	0.0	0.0	0.0

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

1/ EU-15 for all years.

2/ The European Free Trade Association (EFTA) consists of Iceland, Liechtenstein, Norway and Switzerland.

3/ OECD members as of end-1993 (i.e., excludes CEFTA members).

4/ All formerly centrally planned economies.

5/ The Central European Free Trade Association (CEFTA) includes the Czech Republic, Slovak Republic, Hungary, Poland, Slovenia, Romania and Bulgaria. However, trade with Romania is not included here.

6/ Former Soviet Union countries.

Table 27. Slovak Republic: Commodity Composition of Trade, S.I.T.C. Classification, 1993--2001 1/

(In millions of U.S. dollars)

S.I.T.C. Category	Description	1993	1994	1995	1996	1997	1998	1999	2000	2001
Exports, f.o.b.		5,447.5	6,691.0	8,578.9	8,831.1	9,638.9	10,720.0	10,229.0	11,914.0	12,691.0
0	Food and live animals	299.3	303.3	431.3	331.3	332.1	343.4	306.9	300.1	346.7
1	Beverages and tobacco	48.1	62.8	75.0	63.6	65.7	56.9	51.1	51.0	55.3
2	Crude Materials	268.0	342.5	437.2	393.4	409.4	382.6	388.7	385.3	418.5
3	Fuels and related products	268.1	310.4	362.5	434.3	444.6	375.4	491.0	830.6	836.2
4	Animal and vegetable oils and fats	5.6	6.8	9.2	12.1	14.8	19.8	15.3	14.4	18.1
5	Chemicals and related products	654.6	862.2	1,132.1	1,096.8	1,039.5	949.7	808.1	941.7	926.3
6	Intermediate manufactured products	2,111.0	2,633.8	3,469.1	3,379.5	3,272.6	3,201.4	2,792.5	3,172.7	3,472.8
7	Machinery and transport equipment	1,057.5	1,271.4	1,614.7	2,047.0	2,737.3	3,982.7	4,040.5	4,690.7	4,887.9
8	Miscellaneous manufactured articles	730.5	893.7	1,045.5	1,065.8	1,318.2	1,350.7	1,319.5	1,519.9	1,718.7
9	Other	4.8	4.1	2.3	7.3	4.7	4.1	15.3	7.6	10.5
Imports, f.o.b.		6,334.1	6,611.1	8,770.5	11,123.4	11,671.9	13,074.0	11,321.0	12,812.0	14,685.0
0	Food and live animals	464.2	458.7	604.7	670.9	659.2	686.3	583.0	572.8	671.7
1	Beverages and tobacco	92.2	85.3	96.1	120.3	122.4	116.3	130.2	106.1	117.2
2	Crude Materials	326.5	348.8	525.6	543.7	516.0	500.2	430.2	495.7	539.3
3	Fuels and related products	1,324.1	1,273.3	1,535.1	1,861.4	1,826.9	1,534.0	1,460.4	2,236.4	2,234.6
4	Animal and vegetable oils and fats	15.6	19.0	17.6	19.4	21.5	27.3	22.6	30.1	41.7
5	Chemicals and related products	720.0	871.7	1,189.2	1,282.1	1,354.0	1,382.1	1,279.3	1,399.1	1,514.4
6	Intermediate manufactured products	956.7	1,113.7	1,560.8	1,700.5	1,929.3	2,343.5	2,071.7	2,266.6	2,713.8
7	Machinery and transport equipment	1,852.8	1,829.3	2,534.9	3,917.6	4,190.6	5,184.2	4,268.0	4,556.3	5,524.4
8	Miscellaneous manufactured articles	571.1	599.8	698.0	995.6	1,046.5	1,294.4	1,075.5	1,148.9	1,325.2
9	Other	10.9	11.5	8.5	11.9	5.5	6.3	0.0	1.8	2.7

Table 27. Slovak Republic: Commodity Composition of Trade, S.I.T.C. Classification, 1993–2001 1/ (concluded)

(In percent of total)

S.I.T.C. Category	Description	1993	1994	1995	1996	1997	1998	1999	2000	2001
Exports, f.o.b.										
0	Food and live animals	5.5	4.5	5.0	3.8	3.4	3.2	3.0	2.5	2.7
1	Beverages and tobacco	0.9	0.9	0.9	0.7	0.7	0.5	0.5	0.4	0.4
2	Crude Materials	4.9	5.1	5.1	4.5	4.2	3.6	3.8	3.2	3.3
3	Fuels and related products	4.9	4.6	4.2	4.9	4.6	3.5	4.8	7.0	6.6
4	Animal and vegetable oils and fats	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1
5	Chemicals and related products	12.0	12.9	13.2	12.4	10.8	8.9	7.9	7.9	7.3
6	Intermediate manufactured products	38.8	39.4	40.4	38.3	34.0	29.9	27.3	26.6	27.4
7	Machinery and transport equipment	19.4	19.0	18.8	23.2	28.4	37.2	39.5	39.4	38.5
8	Miscellaneous manufactured articles	13.4	13.4	12.2	12.1	13.7	12.6	12.9	12.8	13.5
9	Other	0.1	0.1	0.0	0.1	0.0	0.0	0.2	0.1	0.1
Imports, f.o.b.										
0	Food and live animals	7.3	6.9	6.9	6.0	5.6	5.2	5.2	4.5	4.6
1	Beverages and tobacco	1.5	1.3	1.1	1.1	1.0	0.9	1.2	0.8	0.8
2	Crude Materials	5.2	5.3	6.0	4.9	4.4	3.8	3.8	3.9	3.7
3	Fuels and related products	20.9	19.3	17.5	16.7	15.7	11.7	12.9	17.5	15.2
4	Animal and vegetable oils and fats	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3
5	Chemicals and related products	11.4	13.2	13.6	11.5	11.6	10.6	11.3	10.9	10.3
6	Intermediate manufactured products	15.1	16.8	17.8	15.3	16.5	17.9	18.3	17.7	18.5
7	Machinery and transport equipment	29.3	27.7	28.9	35.2	35.9	39.7	37.7	35.6	37.6
8	Miscellaneous manufactured articles	9.0	9.1	8.0	9.0	9.0	9.9	9.5	9.0	9.0
9	Other	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0

Source: Data provided by the Slovak authorities.

1/ Data are on customs basis and exclude 'private' imports.

Table 28. Slovak Republic: External Debt in Convertible Currencies, 1992–2001

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

	1992 1/	1993 1/	1994	1995	1996	1997	1998	1999	2000	2001
Debt in convertible currencies	2,829	3,380	4,660	5,678	7,667	9,764	11,902	10,498	10,804	11,421
Medium- and long-term	2,262	2,665	3,424	3,964	4,721	5,474	7,297	7,792	8,389	8,418
By debtors:										
National Bank	554	917	1,181	1,025	876	849	812	588	324	233
Commercial banks	199	214	275	529	764	680	602	345	317	313
Government	1,071	1,059	1,083	1,011	844	708	1,698	2,205	3,060	3,324
Enterprises	438	475	885	1,399	2,237	3,237	4,184	4,653	4,689	4,548
Short-term	567	715	1,236	1,714	2,946	4,290	4,605	2,706	2,415	3,003
Government	0	0	0	0	0	186	0	6	0	0
Other	567	715	1,236	1,714	2,946	4,104	4,605	2,700	2,415	3,003
Commercial banks	...	...	1,236	1,714	1,424	2,225	2,063	335	367	541
Enterprises & other	...	...	...	...	1,522	1,879	2,541	2,365	2,048	2,462

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

1/ Excludes debt towards the Czech Republic.