

The Financial Sector in Five Central and Eastern European Countries: An Overview

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I Introduction

This paper gives a condensed account of some current facts and issues related to the financial system in five Central and Eastern European countries: Poland, the Czech Republic, Hungary, Slovakia and Slovenia (referred to below as the CEEC-5).

The aim is to provide an overview of the degree to which the financial sector in the CEEC-5 is able to fulfill its main tasks, namely allocating resources, providing risk-sharing opportunities for households and enterprises and helping agents to economize on transaction and information costs. Particular emphasis will be placed on the analysis of the financial sector's function of channeling funds between different sectors of the economy.

The paper is organized as follows. Section 2 deals with the banking sector in the CEEC-5. After providing an overview of the situation at the outset of transition, we analyze the development of bank lending and the banking sector's efficiency and profitability. In section 3 we present key figures on the size, structure, liquidity and foreign participation in domestic capital markets. Section 4 deals with the structure of financial intermediation in the CEEC-5, providing insight into the funding of both the private sector and the public sector. Section 5 briefly assesses the vulnerability to financial contagion, including in particular the risks emanating from domestic capital markets in the CEEC-5.

The paper draws on several sources: Using the academic research literature, data published by international organizations as well as information we collected for this project from national sources, we have tried to provide the most recent facts and figures wherever possible.

2 The Banking Sector in the CEEC-5

2.1 The Legacy of Central Planning, Early Reforms and Early Bank Failures

Under central planning, the financial system was little more than a book-keeping mechanism for recording the authorities' decisions about the allocation of resources among various sectors and enterprises. At the outset of transition the following key reforms were implemented: (1) a two-tier banking system was introduced, (2) sectoral restrictions on specialized banks were lifted, (3) privately owned banks were admitted, (4) foreign banks and joint ventures were granted access, (5) the licensing policy for most kinds of banking business was liberalized, (6) the legal framework and supervisory system were adjusted.

A licensing policy that was mostly quite liberal coupled with shortcomings in the legal framework and supervisory system gave rise to the establishment of a large number of newly founded banks which often engaged in unsound practices. The state-owned commercial banks (which emanated from the old monobank system), in turn, suffered from an inherited burden of bad loans. Banking systems generally lacked capital and banking skills; moreover, political intervention in the activities of state-owned banks was

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pervasive. These deficiencies coupled with the uncertain economic environment prevailing at the beginning of transition resulted in the quick accumulation of bad loans and – finally – in a number of banking crises.

2.2 Recapitalization Programs

Although not all countries under review experienced fully fledged banking crises, all undertook large-scale bank recapitalization programs, mostly from 1992 to 1996. While Hungary, Poland and Slovenia had succeeded in stabilizing their banking systems by 1997 with the help of these programs, the Czech Republic and Slovakia faced continuing problems. Although the Czech Republic had concluded a large set of recapitalization measures by 1997, substantial additional public funds had to be put up to prepare the country's largest banks for privatization. Altogether, by 2000 the total fiscal cost of bank recapitalization since the reforms were launched amounted to 11.8% of GDP in 2000 in the Czech Republic, as table 1 below shows. While some funds may be recovered (e.g. by privatization revenues for Komerční banka), the figures presented in the table below do not include the not yet fully known costs of the recent failure of Investiční a Poštovní banka (IPB). According to the Czech Republic's preaccession economic program, these costs are estimated at CZK 75 billion (about 4% of GDP in 2000). Slovakia was last to recapitalize its banks, and the costs are among the highest in the region. However, the figures presented below for Slovakia represent the total amount of bad loan transfers from commercial banks to state institutions. They are not directly comparable with the other figures, because some costs will probably be recovered from those loans which are not entirely lost. In terms of total costs, Poland was most successful, as the cumulated costs of bank recapitalization were below 1.5% of GDP in the year 2000. Poland's success is attributable to the design of the recapitalization program, which provided the least incentive for moral hazard, but also to the small size of the Polish banking sector in relation to GDP. Besides, it should be noted that the early tackling of the bad-loan problem decreased costs in terms of GDP in 2000, which line 3 of table 1 makes evident.

Table 1

Fiscal Costs of Bank Recapitalization					
	Czech Republic	Hungary	Poland	Slovakia ¹⁾	Slovenia
Main part of recapitalization program completed in	1997	1994	1996	2000	1997
Fiscal costs up to the year indicated above in % of GDP in that year	8.9	7.2	1.6	13.1	2.5
Fiscal costs of recapitalization program up to the year 2000 in % of GDP in 2000	11.8	6.8	1.4	13.1	1.7

Source: International Monetary Fund (1998), Kawalec (1999), national central banks, OeNB.
¹⁾ Slovakia: Figures are not directly comparable (see text).

2.3 Privatization and Foreign Ownership

Progress in bank privatization differs among the CEEC-5. At the end of 1999, majority state-owned banks held only 9% of the assets of the banking sector (excluding the central bank) in Hungary, followed by 23% (exclusive

of Česká Spořitelna and Komerční banka¹) in the Czech Republic, while it was significantly higher in Slovenia at 42% and in the Slovak Republic at 51% (EBRD, 2000). In Poland, the state banks had a share of 22% in the total assets of the banking sector (excluding the central bank) and a significantly lower share of 13.5% in the sector's total equity at the end of 1999. In the meanwhile, several significant transactions have taken place to reduce state stakes even further. No major transactions were made in Hungary, where privatization was most advanced in 1999. However, the government intends to dispose of direct state ownership of Postabank (the country's sixth largest bank in terms of assets), but did not succeed in finding a buyer from the private sector who was willing to pay enough in its first attempt. Instead, Postabank is to be sold to the Hungarian Post Office. After selling a majority stake in Česká Spořitelna (the country's largest retail bank) at the beginning of 2000 to Austrian Erste Bank, the Czech Republic intends to sell the last significant state stake in a major bank in the course of 2001.²) In Poland, state ownership of banks underwent only small changes in 2000. The sale of a 10% stake in Powszechny Bank Kredytowy SA w Warszawie (PBK, rank four in terms of assets in Poland) to Bank Austria Creditanstalt International gave Bank Austria a controlling majority. The share of state banks fell only slightly to 21% of the sector's assets and to 11.5% of the sector's equity at the end of 2000. Two major banks, namely the largest (Powszechna Kasa Oszczedności BP, PKO BP) and the fifth largest bank (Bank Gospodarki Żywnościowej, BGZ) in terms of assets, are still owned by the state. The government intends to reduce its stake in the former bank, but wants to keep control of this bank for the time being, while the latter is to be privatized. The most radical changes in state ownership of banks are taking place in the Slovak Republic in the course of 2001. Slovenská Sporiteľňa, the country's largest bank, was sold to Erste Bank at the beginning of the year, and the other two major banks with substantial state stakes are to be privatized in the course of this year, too. There was no progress in bank privatization in Slovenia in 2000, but the government intends to sell majority stakes in the country's two largest banks in the course of 2000 and 2001.

Privatization efforts appear to have been a direct response to continued problems in running the banks in the Czech Republic, Slovakia³) and to some degree in Hungary, while in Poland and Slovenia the time span between recapitalization and privatization is larger. The mode of privatization that was chosen in most cases, namely tender or direct sales to foreign banks, resulted in strong foreign participation in CEE banking sectors, except in Slovenia.⁴) The main motivation for choosing this mode of privatization was probably the expected transfer of know-how in conducting banking business.

1 These majority state-owned banks accounted for a share of 15.0% and 15.5%, respectively, of total banking sector assets at the end of 1999.

2 Exclusive of Konsolidační banka.

3 Slovakia took concrete steps to privatize the country's two largest banks in 2000 and 2001.

4 The Czech Republic and Slovakia had initially opted for a partial privatization of state banks by means of voucher privatization, but eventually chose to fully privatize banks by direct sales to strategic investors.

Figure 1

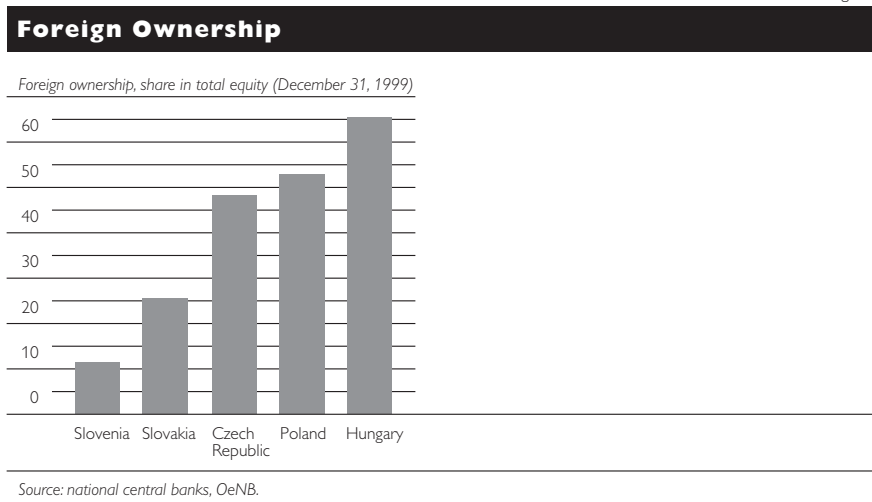
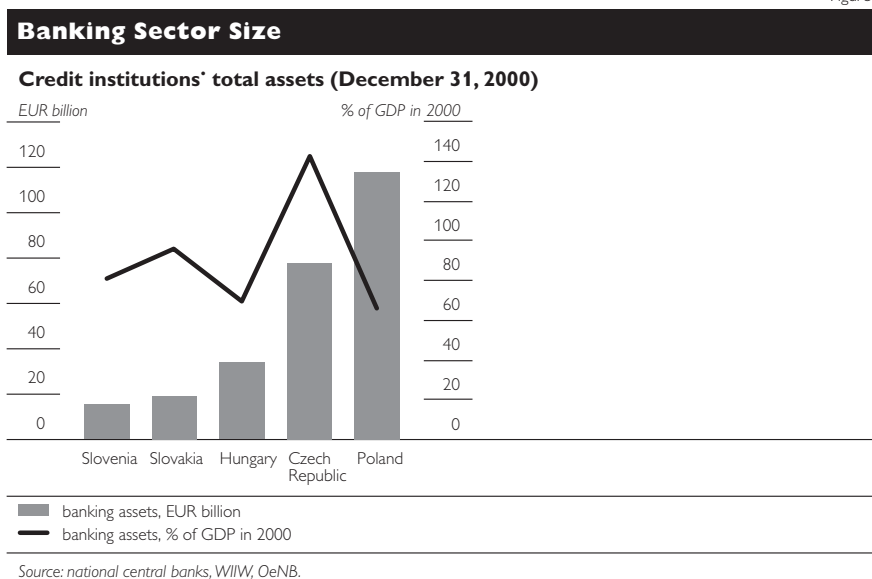


Figure 1 shows the share of foreign ownership in the banking sector's equity at the end of 1999. In Poland, this share increased slightly to 53.8% (from 53.1%) at the end of 2000. However, it has to be stressed that this foreign equity ownership implied the effective control of several Polish banks; these banks accounted for 71.7% of the sector's equity and 69.6% of the sector's assets at the end of 2000.

2.4 Size and Concentration of the Banking Sector

The size of the CEEC-5 banking sectors (excluding the central banks) is rather modest in terms of absolute volume as well as in relation to GDP, as figure 2 shows. At the end of 2000, credit institutions' total assets amounted to just EUR 117.4 billion in Poland, a country with a population of 38 million. With a level of 142.5% of GDP, banking assets in the Czech Republic stand out in comparison to the peer group. By comparison, total

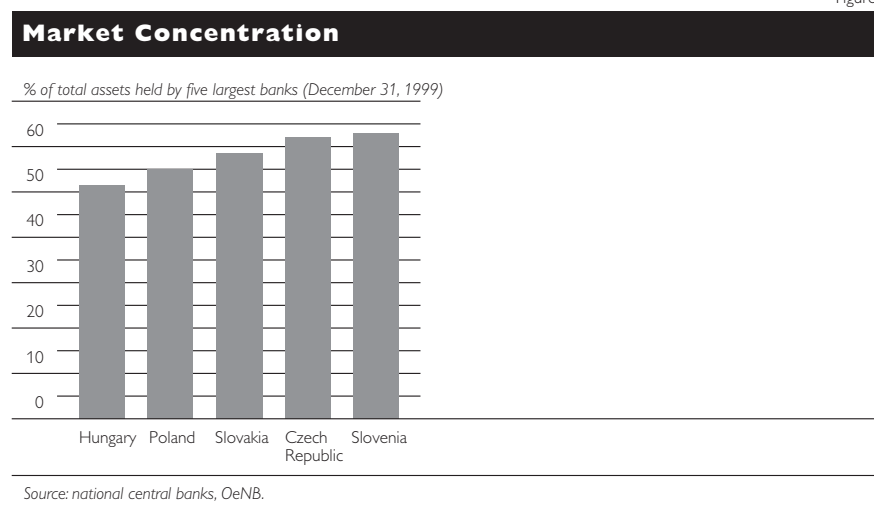
Figure 2



banking assets amounted to EUR 562.7 billion in Austria (273% of GDP) at the end of 2000.

The concentration in CEE banking sectors is slightly below the EU average. In the Czech Republic and in Slovenia, the market share of the five largest credit institutions was above the EU average of 60% in 1999. Considering that banking sectors in the smaller EU countries (which are probably a better benchmark for comparisons than the EU average) tend to be more concentrated, CEE banking sectors appear even less strongly concentrated at present. However, a number of mergers have taken place recently, and this trend is likely to continue.

Figure 3



2.5 Structure of the Stocks of Lending and Deposits

The change in the structure of the stock of domestic credit extended by the banking system, i.e. the banking sector and the central bank, (see table 2) is characterized by a strong cutback of central bank lending to the government in Poland and Hungary. In the Czech Republic, central bank credit to the general government has been zero since 1996, down from around 4% of GDP in 1993. In Slovenia, it has been roughly zero since 1992.

After having risen from 1992 to 1995, the stock of commercial banks' lending to government relative to GDP declined in Poland from 1996 and in Hungary from 1997 onward because the countries pursued cautious fiscal policies and because the role of direct financial intermediation between nonbanks and the government became more important (see also section 4.2.2).

This development helped boost the stock of bank lending to the corporate sector relative to GDP in Poland and Hungary to a level of above 20% of GDP in the year 2000 after it had fallen from the beginning of the 1990s up to 1995 in Poland and 1996 in Hungary. However, in Hungary, the high initial level of 1990–92 (27.0% of GDP) has not yet been reached again, and the increase of corporate lending fell far short of compensating for the decline of net credit extended to the public sector by the banking system (central bank and commercial banks), implying a substantial decrease in total domestic

credit. In Slovenia, bank lending to the corporate sector relative to GDP increased continuously from 1994 to an even slightly higher level than in Poland and Hungary, namely 23% of GDP in the year 2000.

On the other hand, the extraordinarily high level of credit to the corporate sector in the Czech Republic fell significantly both in absolute terms and relative to GDP from 1997 (57.3%) to 2000 (47.1%).¹⁾ This reduction was caused by the structural bad-loan problem and by the even more restrictive turn in monetary policy in 1997–98. Lower bank lending contributed to the recession in 1998–99, which in turn reinforced the decline in lending. The significant amount of nonperforming loans led not only to restrictive new lending by the banks, but finally also to the transfer of a substantial part of these loans to the state-owned consolidation bank, so that they no longer showed up in domestic credit.

A comparison of lending to households between those countries reveals a quite divergent pattern. While lending to households in relation to GDP rose continuously in Poland and Slovenia from 1994 to 2000, it augmented in Hungary and in the Czech Republic only from 1998 or 1999, respectively, after it had fallen substantially since 1994. Only in Slovenia did it exceed 10% of GDP.

Table 2

Stock of Domestic Credit of the Banking System

(Including Foreign Exchange-Denominated Credit)

	Poland		Hungary ¹⁾		Czech Republic		Slovakia ²⁾	Slovenia	
	1994	2000	1994	2000	1994	2000	2000	1994	2000
	<i>average, in % of GDP</i>								
Total	32.3	36.0	53.6	36.8	64.7	58.0	66.8	28.3	41.6
Net credit to public sector	15.7	8.4	28.8	10.1	1.0	4.7	20.6	8.3	6.0
Credit to OFIs ³⁾	0.0	1.3	0.0	1.1	0.0	0.0	0.0	0.2	1.1
Credit to corporate sector	15.4	20.3	18.9	22.2	55.2	47.1	41.7	15.8	23.0
Credit to households	1.2	6.1	5.9	3.4	8.6	6.2	4.5	4.0	11.5

Source: national central banks, WIIW, OeNB.

¹⁾ Hungary: The external debt for the government channeled through the central bank is excluded from net credit to the public sector and thus from total domestic credit, as the external debt of the government is not included for the other countries, either. Including this credit raises the corresponding figures by 32.4 percentage points in 1994 and by 12.9 percentage points in 2000.

²⁾ Slovakia: Due to a break in the time series, the year 1994 is not included.

³⁾ OFIs: Financial institutions other than deposit money banks.

The *ratio* of resident commercial banks' *new net lending to the corporate sector* (i.e. the change in the stock of credit to the corporate sector) *to total gross fixed capital investment* has fallen since the early 1990s, when it amounted to between 25% and 35%. In Hungary, the ratio averaged 30.7% in 1990–91. While the increase in the stock of credit to the corporate sector was sufficient to raise the ratio of this credit stock to gross domestic product (and to gross fixed capital investment) from 1996–97 to 2000 in Poland, Hungary

1 The extraordinarily high level of domestic credit to the corporate sector in the Czech Republic and in Slovakia mainly constitutes a country-specific legacy of the communist era. Moreover, some specific macroeconomic features of the early phase of transition played a role. In particular, the relatively low initial boost in inflation upon transition implied that the erosion of money was only moderate. With the differences between the countries being so strong, it seems to be more fitting to look at the development of credit aggregates than at their levels.

and Slovenia, it was not sizeable enough to imply a constant or even rising ratio of this increase to gross fixed capital investment in Hungary and, in particular, in Poland. In the years 1999–2000, the average ratio was highest in Hungary (18.9%), while it was even negative in the Czech Republic and in Slovakia, as table 3 indicates.¹⁾ The general decline in this financing ratio is probably attributable to not just one, but several partly interrelated factors: (1) the improved self-financing capacity of companies, (2) resident commercial banks' improved lending control and risk assessment coupled with tighter prudential regulations, (3) an insufficient increase in resident banks' lending capacity,²⁾ and (4) high real lending rates. The parallel considerable increase in nonresident banks' cross-border lending indicates that lending by resident (domestically or foreign-owned) commercial banks did not sufficiently meet the growing investment needs of an economy striving to catch up with the European Union. In addition, it has to be noted that an increasing part of gross fixed capital investment was financed by intercompany loans extended by the foreign parent company.

Table 3

Credit to the Corporate Sector by the Banking System					
	Poland	Hungary ¹⁾	Czech Republic	Slovakia	Slovenia
	change in % of gross fixed capital investment				
1994 ²⁾	25.6	3.6	30.0	..	29.7
1998 ³⁾	18.7	19.7	10.0	..	13.9
2000 ⁴⁾	11.4	18.9	- 8.6	-2.5	13.6

Source: national central banks, WIW, OeNB.
¹⁾ Hungary: The low level in 1994 is mainly due to a negative ratio of -11.1% in 1992. The average ratio for the years 1993–94 was 10.9%.
²⁾ 1994 denotes average of 1992–94.
³⁾ 1998 denotes average of 1996–98.
⁴⁾ 2000 denotes average of 1999–2000.

For several reasons, it is interesting to take a look at the currency breakdown of domestic credit. The following table shows the share of the *corporate sector's credit stock denominated in foreign currency* and extended by the domestic banking system in percent of the total stock of credit to the corporate sector by the domestic banking system. Except in Slovenia, this share significantly rose from 1994 to 2000, reaching almost 40% in Hungary and 25% in Poland (table 4).

To assess the impact exchange rate movements may have on the corporate sector, it is probably better to look at the net position, which is derived by subtracting the corporate sector's deposits denominated in foreign currency from their foreign exchange credit. It follows that the share of corporate sector credit denominated in foreign currency that was not covered by

- 1) While the change in the stock of credit generally shows the difference between the flows of new lending and repayment, it may also reflect extraordinary changes. Thus, the negative values in the Czech Republic and in Slovakia on average in the years 1999 and 2000, reflect – inter alia – the transfer of nonperforming loans from the commercial banks to the state-owned consolidation banks.
- 2) In particular, the traditionally large banks do not seem to have improved the efficiency of their internal organization of credit allocation enough, resulting at times in disproportionate credit restrictions.

Table 4

The Corporate Sector's Foreign Exchange Position

against the Domestic Banking System

in % of total credit (including foreign exchange credit)
extended to the corporate sector by the domestic banking system

	Poland		Hungary		Czech Republic		Slovakia	Slovenia		
	1994	2000	1994	2000	1994	2000	2000	1994	2000	
	<i>end of period</i>									
Gross position ¹⁾	10.3	23.7	11.8	38.0	6.0	18.5	13.8	23.4	20.9	
Net position ²⁾	7.3	17.2	- 0.9	29.9	3.4	10.1	3.6	17.7	12.4	

Source: national central banks, OeNB.

¹⁾ The gross position comprises credit denominated in foreign currency.

²⁾ The net position comprises credit minus deposits denominated in foreign currency.

(on-balance) foreign exchange claims against the domestic banking system amounted to about 30% in Hungary and 17% in Poland in the year 2000. However, when drawing conclusions about the impact of exchange rate movements on the corporate sector, some caveats have to be borne in mind. First, the calculation of the net positions offsets credits and deposits regardless of possible differences in their currency of denomination. Moreover, table 4 does not incorporate off-balance-sheet positions.

Taking this approach one step further, the next table includes the foreign debt liabilities of the corporate sector. When taking into account the foreign exchange-denominated deposits with the domestic banking system as well as the foreign assets held by the corporate sector, *the corporate sector's net foreign exchange position* in percent of the total credit received from the domestic banking system and foreign creditors amounted to about 49% in Poland, 43% in Hungary, 37% in Slovakia and 29% in the Czech Republic (table 5).

However, it has to be taken into account that the level of domestic credit to the corporate sector relative to GDP is significantly higher in the Czech Republic and Slovakia. Thus, relating the net foreign exchange position to GDP leads to the result that at the end of 2000 Slovakia had the highest ratio (28%), while Poland, Hungary and the Czech Republic had about the same

Table 5

The Corporate Sector's Foreign Exchange Position

against the Domestic Banking System and Nonresidents

in % of total credit (including foreign exchange credit)
extended to the corporate sector by the domestic banking system and foreign creditors

	Poland			Hungary			Czech Republic		Slovakia	Slovenia		
	1995	1997	2000	1995	1997	2000	1997	2000	2000	1995	1997	2000
	<i>end of period</i>											
Gross ¹⁾	30.8	42.2	57.3	55.5	57.7	67.2	40.2	45.9	52.6	58.7	56.9	61.7
Net ²⁾	21.0	32.7	48.6	30.2	42.9	43.2	25.8	28.9	37.4	22.1	17.4	22.8

Source: national central banks, OeNB.

¹⁾ The gross position comprises credit denominated in foreign currency.

²⁾ The net position comprises credit denominated in foreign currency minus both the foreign currency-denominated deposits with the domestic banking system and the corporate sector's foreign assets.

ratio, 20%. In the Czech Republic, the net foreign exchange position relative to GDP has been roughly unchanged since 1997, while it has increased in Hungary (from 15%) and more than doubled in Poland (from 9%).

It seems that financial conditions for the corporate sector are decisively determined by the exchange rate. This fact must not be overlooked when investigating the monetary transmission channels in the Central and Eastern European countries.

For exporters who generate revenues in foreign currency, foreign currency-denominated debt may serve as a hedging tool. Similarly, the increasing use of foreign currency-denominated debt is a sign of increasing financial integration with the EU, complementary to the real integration in terms of foreign trade. On the other hand, the marked increase in foreign currency-denominated credit probably also reflects expectations of enterprises of a continued future (trend) real appreciation and high real lending rates for domestic currency-denominated credit (in particular if measured against the producer price index of manufacturing).

Downward corrections of the exchange rate would affect the costs of debt servicing by enterprises that have incurred unhedged foreign currency-denominated debt. If such enterprises did not benefit from the downward correction on their revenue side (e.g. because they are mainly oriented to the domestic market), their overall financial situation would suffer.

Turning from banks' assets to banks' liabilities, deposits are mostly held in domestic currency. The share of *foreign currency-denominated deposits* is somewhat larger in Slovenia (see table 6), probably because of the history of high inflation in former Yugoslavia and soon after independence. In general, the share of foreign currency-denominated deposits shows a declining trend in the long term, reflecting growing trust in the local currency and continuous expectations of future real appreciation and relatively high real interest rates. Temporary increases in the share of foreign currency-denominated deposits seem to have been connected with times of economic turbulence (e.g. in Hungary in 1995 and in the Czech Republic in 1997).

Table 6

Foreign Exchange Deposits of Resident Private Nonbanks					
in % of money supply including foreign exchange deposits					
	Poland	Hungary	Czech Republic	Slovakia	Slovenia
	<i>end of period</i>				
1994	28.5	18.4	7.0	..	38.1
2000	14.6	16.9	10.6	15.5	31.9

Source: national central banks, OeNB.

One important element of financial stability is to avoid too large a *foreign currency mismatch in the banking sector*. The following table (table 7) summarizes the net foreign assets of the commercial banks as well as the net foreign exchange position of the commercial banks against domestic nonbanks (enterprises, households as well as the general government).

Table 7

Commercial Banks' Net Foreign Assets and Their Net Foreign Exchange Position

against Domestic Nonbanks

in % of GDP

	Poland		Hungary		Czech Republic		Slovenia	
	1994	2000	1994	2000	1994	2000	1994	2000
	<i>end of period</i>							
Domestic net foreign exchange position ¹⁾	-2.1	0.4	-6.6	4.5	..	0.4	-7.6	-10.4
Net foreign assets (NFA)	6.7	2.9	-2.6	-6.9	2.4	16.3	7.1	2.4

Source: national central banks, WIIW, OeNB.

¹⁾ The domestic net foreign exchange position includes holdings of externally issued foreign currency-denominated bonds of the national government (e.g. Polish commercial banks' holdings of Polish Brady bonds).

According to the table below, the foreign exchange exposure of the Hungarian banking sector seems to have improved in recent years.¹⁾ This primarily reflects increased domestic foreign exchange-denominated lending against a smaller decrease of foreign exchange-denominated deposits accepted from nonbanks. In addition, it can be assumed that a significant part of the foreign liabilities constitute liabilities to foreign parent companies. The domestic net foreign exchange position seems to have been significantly negative in Slovenia in the year 2000. While the share of foreign exchange-denominated lending was not particularly low (see table 4), the negative net position primarily reflects the comparatively high share of foreign exchange-denominated deposits (see table 6). However, it is a typical feature of the Slovenian banking sector that quite a substantial part of tolar-denominated credits is linked to the exchange rate. Moreover, it should be noted that this table includes on-balance-sheet positions only.

2.6 Banking Sector Efficiency and Profitability

In addition to taxes and transaction costs borne directly by savers and investors, bank interest spreads drive a wedge between returns to savers and financing costs for investors and thus affect the equilibrium between the supply of deposits and the demand for loans. Therefore, interest spreads may be interpreted as an indicator of banking sector efficiency if the impact of differences in the level of minimum reserve requirements on the interest spread is adequately taken into account. However, interest spreads are also a major determinant of banking sector profitability. In order to enable banks to take risks and to promote a stable and sustainable expansion of the banking sector, banking operations have to be sufficiently profitable.

In comparison with other catching-up economies, the interest rate spread between lending and deposit rates (IS) is rather low in the five Central European economies covered in this study. According to the World Bank's (2001) development indicators, in 1999 the spread between lending and deposit rates was lower only in 23 emerging market economies (of a total of 127 emerging market economies) than the CEEC-5 average of 5 percentage points. The Czech Republic's interest rate spread of 3.1 percentage

1 The caveats mentioned above also apply in this case.

points (see table 10) was even comparable with that of the most developed industrial countries (which generally exhibit low spreads).¹⁾ Thus, financial intermediation is provided at comparatively low costs for the real sector in the CEEC-5. However, in real terms returns to savers and financing costs for investments are affected by the considerable difference between consumer and producer price inflation in the CEEC-5. As year-on-year changes in the CPI (more relevant for savings) normally exceed changes in the PPI of industrial producers (more relevant for investment) in the CEEC-5, real returns for savers fall and real financing costs for industrial producers rise accordingly.

On the downside, banking sector profitability in the CEEC-5 (with the exception of Poland) was clearly inadequate in recent years. In 1998–99 the banking sector even suffered losses in the Czech Republic and in Slovakia. By way of comparison, the banking industry's return on equity (ROE) in the EU was 11.7% in 1999. Preliminary figures for 2000 point to an improvement in banking profitability in most CEECs.

Table 8

Return on Equity (ROE)				
	1997	1998	1999	1 st half 2000
	%			
Poland ¹⁾	22.7	8.1	12.2	16.8
Slovakia	..	..	-182.7	- 6.3
Slovenia	10.3	11.3	7.8	12.2
Czech Republic	- 2.9	-17.9	- 4.3	6.6
Hungary	12.2	7.7	3.7	15.7

Source: national central banks, OeNB.

¹⁾ Commercial banks (excluding cooperative banks) only.

With a share of between 62.8% and 70.8% of gross income in 1999, net interest income is more important for CEEC banks' bottom line than for that of banks in the EU, where this share amounted to only 54% in 1999.

Table 9

Net Interest Income/Gross Income				
	1997	1998	1999	1 st half 2000
	%			
Poland	72.9	70.3	63.7	63.7
Slovakia	..	..	..	..
Slovenia	75.3	74.0	70.8	77.4
Czech Republic	45.4	67.9	62.8	67.1
Hungary	67.8	71.9	70.4	77.8

Source: national central banks, OeNB.

Obviously, the development of net interest income is strongly influenced by the development of spreads between contractual rates charged for loans and paid for deposits (IS), but for the analysis of profitability of the intermediary function of banks, defaults should be taken into consideration as well. To address this issue, Demirgüç-Kunt and Huizinga (1999) propose

¹⁾ Moreover, when comparing the interest spread in the CEEC-5 with that in the most developed industrial countries, it has to be taken into account that some of the CEEC-5, in particular Poland and Hungary, had far higher minimum reserve requirements than the most developed industrial countries at least up to 1999.

the use of net interest margins (NIM). The NIM is defined as the ratio of net interest income to average banking assets. Although the IS and the NIM will normally differ,¹⁾ the difference between the two measures may provide insights into the extent to which the spread between lending and deposit rates is eroded by loan defaults. Assuming an equal IS, the NIM should be lower for a bank with a larger share of non-interest-bearing assets (such as nonperforming loans), as these assets do not deliver the contractual interest rate and thus do not contribute to net interest income but are still included in banking assets.

Table 10

Lending Rate minus Deposit Rate¹⁾ to Nonbanks

difference of the annual average of rates in % p.a.

	1994	1995	1996	1997	1998	1999	2000
	percentage points						
Poland	10.9	11.0	8.5	7.3	7.2	6.9	6.7
Slovakia						6.7	6.4
Slovenia	6.0	4.2	4.8	4.7	4.3	3.9	3.5
Czech Republic	2.5	2.6	3.1	2.8	2.3	3.1	2.9
Hungary	7.1	6.5	5.1	3.3	4.2	4.5	3.9

Source: national central banks, OeNB.

¹⁾ Deposit rates are rates on household deposits excluding demand deposits. Including demand deposits would increase these spreads by about 1 percentage point in all countries in the year 2000.

Table 11

Net Interest Margin

net interest income in % of average banking assets

	1997	1998	1999	1 st half 2000
	%			
Poland	4.8	4.6	4.0	4.4
Slovakia	..	..	..	..
Slovenia	4.2	4.1	3.8	4.2
Czech Republic	1.8	2.9	2.3	2.0
Hungary	3.8	4.3	3.7	4.1

Source: national central banks, OeNB.

As expected, Hungary, which has low burdens of nonperforming loans, shows very small deviations between the IS and the NIM. In 1997 and 1998 the NIM even exceeds the IS in Hungary, which is probably attributable to the fact that revenues from currency forward transactions are in part registered as interest revenues while expenses related to these transactions are accounted for in other positions.²⁾ Contrary to expectations, there are large deviations between these two measures in Poland on the one hand and small deviations in Slovenia and in the Czech Republic on the other hand.

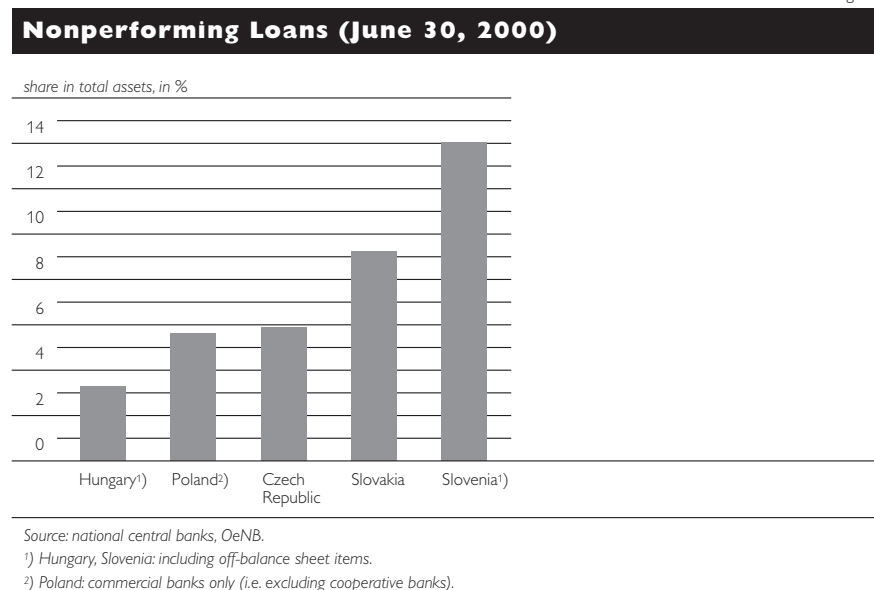
In the Czech Republic, both measures show that the difference between deposit and lending rates was too low to provide sufficient compensation for the exercise of the intermediary function.

1) Especially over time, differences between the two measures are likely to arise: Loan defaults, which affect the net interest margin by reducing the share of interest-bearing assets in bank assets, will mostly occur with a time lag in comparison with the specific date for which the spread between lending and deposit rates was calculated.

2) See National Bank of Hungary (2000).

Figure 4 below shows the size of nonperforming loans relative to total assets of the banking sector (excluding the central bank). Concerning the particularly high ratio in Slovenia, it has to be stressed that the value of collateral was exceptionally high there as well, amounting to 12.3% of total banking sector assets, while it was only about 2.5% of total assets in the Czech Republic (see also section 4.1).

Figure 4



The structure of expenses (in relation to gross income) of CEE banks is characterized by higher provisioning, but lower general operating expenses than of EU banks. In 1999, net provisioning charges amounted to 10% of gross income, while general operating expenses stood at 68% of gross income in the EU. However, general operating expenses in the CEEC-5 have increased strongly in recent years, with above-average growth rates for depreciation (resulting mainly from large investments in IT).

Table 12

Net Provisions/Gross Income

	1997	1998	1999	1 st half 2000
	%			
Poland	4.4	9.9	13.5	11.2
Slovakia	..	..	..	..
Slovenia	19.8	15.4	19.7	18.7
Czech Republic ¹⁾	34.0	15.1	- 3.7	-108.3
Hungary	- 1.4	8.1	13.7	1.8

Source: national central banks, OeNB.
¹⁾ The transfer of bad loans in the Czech Republic led to a large release of provisions in 2000.

However, aggregate banking sector figures hide considerable differences in profitability within the sector. The Hungarian National Bank (2000) shows these differences explicitly by defining two distinct groups of banks. The situation in the Czech Republic and in the Slovak Republic, where some successful banks exist in parallel with the problem-ridden state-owned banks, seems to be similar. According to the National Bank of Hungary (2000), early

Table 13

Operating Expenses/Gross Income				
	1997	1998	1999	1 st half 2000
	%			
Poland	55.6	63.0	65.2	62.5
Slovakia	..	..	..	..
Slovenia	61.4	63.3	65.2	59.5
Czech Republic	48.6	49.7	56.6	64.3
Hungary	54.5	59.6	68.8	73.7

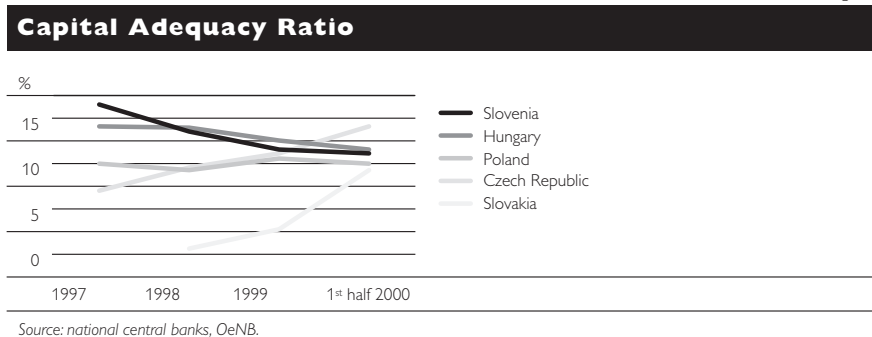
Source: national central banks, OeNB.

foreign entrants and quickly restructured domestic banks belong to the most profitable entities.

2.7 Capital Adequacy

Although international comparisons of capital adequacy ratios should be treated with caution, the level of these ratios is relatively high in the countries covered by this study (with the exception of the Slovak Republic, where consolidation measures are still underway). Of course, these capital adequacy ratios have to be seen in the light of rather high risks in CEE banking markets, which is e.g. evident in relatively high default rates or provisioning charges. As balance sheet growth in most cases exceeded ROE figures in the CEECs, increases in the capital adequacy ratio are the result of capital injections.

Figure 5



3 Capital Markets in the CEEC-5

The capital markets in the CEEC-5 comprise both equity markets and markets for debt securities denominated in local currency (LCY). Listings on foreign stock exchanges are touched upon only briefly, while international bond issues are not covered at all in this section.

3.1 Establishment of Equity Markets

The development of equity markets in the CEEC-5 was driven mainly by the privatization process. In terms of market capitalization, equity markets initially developed most rapidly in countries where mass privatization schemes were initiated, most notably in the Czech Republic and Slovakia. Market infrastructure and regulation was often put in place after the establishment of a rudimentary market. In Poland and Hungary infrastructure and an extensive regulatory framework were established first, and new listings grad-

ually entered the market. The latter approach proved more successful, which is reflected in the higher liquidity and better performance of stock indices in Hungary and Poland. The Czech, Slovak and Slovenian equity markets exhibit a more fragmented structure with a comparatively large number of small companies with low liquidity. Besides, Hungarian and Polish companies tended to be at a more advanced stage of restructuring than their peers in the other countries when they were listed, which had a positive impact on the development of the respective stock prices.

3.2 Establishment of Markets for Debt Securities Denominated in Local Currency

The emergence of these markets was linked mainly to the management of public debt and the process of macroeconomic stabilization. The securitization of loans to the central government denominated in local currency went in parallel to the declining importance of the central bank as a creditor to the public sector. Within the market for central government debt securities in local currency, it is worth distinguishing between privately placed and publicly issued securities, the latter comprising both marketable securities (T-bills, T-bonds) and nonmarketable ones (retail securities). Private placements were made mainly in the first half of the 1990s and were linked to (1) the recapitalization of commercial banks, (2) the securitization of central bank loans denominated in local currency to the central government, and (3) the conversion of foreign currency-denominated government bonds held by the central bank into local currency-denominated ones. Initially, privately placed bonds were mostly nonmarketable; in the meantime, most of them have been transformed into marketable bonds.

3.3 Size and Structure of Securities Markets

The ranking of the CEE countries by the *total capitalization* of their *equity markets* differs when measured in absolute or relative terms. At the end of 2000, Poland had the highest total market capitalization in absolute terms (USD 31.4 billion), while Hungary clearly exhibited the highest total market capitalization in relation to GDP (25.9%) as table 14 shows.

In the analysis of equity market capitalization, it has to be stressed that total market capitalization includes the total equity capital of all listed companies, thus including strategic holdings. It is useful to analyze free-float market capitalization (i.e. all portfolio holdings) as well. Unfortunately, such figures are available for the year-end 1998 only. Hungary had the highest volume of free-float market capitalization with USD 7.5 billion and 15.7% of GDP (Benoit, Demel, Reininger, 2001). At the end of 1998, the total market capitalization of the Hungarian equity market amounted to 29.5% of GDP.

Compared to the equity markets of most developed market economies, even the Hungarian equity market is still small in relation to the size of the economy (U.S.A.: 152.7% of GDP; Germany: 63.1%, end-2000¹) and even more so in absolute terms.

¹ Austria represents an outlier in this respect: Equity market capitalization amounted to only 15% of GDP at the end of 2000.

Table 14

Market Capitalization										
end of period										
	Poland		Hungary		Czech Republic		Slovakia		Slovenia ¹⁾	
	1997	2000	1997	2000	1997	2000	1999	2000	1997	2000
	USD million									
Equity markets ²⁾	12,441	31,397	15,195	11,936	14,311	11,713	3,568	3,268	1,867	3,856
Debt securities ³⁾ in local currency (at nominal value)	21,767	34,349	13,199	15,707	7,142	10,998	2,957	2,807	2,362	2,145
thereof: central government publicly issued ⁴⁾	20,760	30,568	13,017	15,510	3,892	7,130	2,494	2,384	2,103	1,886
thereof: T-bills	17,097	24,393	8,157	10,752	3,892	7,130	2,494	2,383	151	315
thereof: T-bonds	9,170	5,658	3,249	2,941	2,220	4,371	1,201	717	0	95
retail securities	7,927	18,735	4,908	7,811	1,673	2,759	1,293	1,666	151	220
privately placed ⁵⁾	0	471	1,184	1,839	0	0	0	0	0	0
thereof: other issuers ⁶⁾	3,663	5,703	3,676	2,919	0	0	0	0	1,952	1,571
publicly issued	1,007	3,781	182	197	3,250	3,868	463	423	259	258
privately placed ⁵⁾	0	0	182	197	3,250	3,868	463	423	259	258
thereof: commercial papers (maturity under one year)	1,007	3,781	..	..	..	..	..	..	..	..
	723	2,638	..	..	..	..	..	..	..	..
	% of GDP									
Equity markets ²⁾	8.6	19.8	33.2	25.9	27.2	23.7	18.1	17.0	10.3	21.2
Debt securities ³⁾ in local currency (at nominal value)	15.1	21.6	28.9	34.0	13.6	22.2	15.0	14.6	13.0	11.8
thereof: central government publicly issued ⁴⁾	14.4	19.2	28.5	33.6	7.4	14.4	12.7	12.4	11.6	10.4
thereof: T-bills	11.9	15.4	17.8	23.3	7.4	14.4	12.7	12.4	0.8	1.7
thereof: T-bonds	6.4	3.6	7.1	6.4	4.2	8.8	6.1	3.7	0.0	0.5
retail securities	5.5	11.8	10.7	16.9	3.2	5.6	6.6	8.7	0.8	1.2
privately placed ⁵⁾	0.0	0.3	2.6	4.0	0.0	0.0	0.0	0.0	0.0	0.0
thereof: other issuers ⁶⁾	2.5	3.6	8.0	6.3	0.0	0.0	0.0	0.0	10.7	8.6
publicly issued	0.7	2.4	0.4	0.4	6.2	7.8	2.4	2.2	1.4	1.4
privately placed ⁵⁾	0.0	0.0	0.4	0.4	6.2	7.8	2.4	2.2	1.4	1.4
thereof: commercial papers (maturity under one year)	0.7	2.4	..	..	..	..	..	..	..	..
	0.5	1.7	..	..	..	..	..	..	..	..

Source: Central European Rating Agency (CERA S.A.), national ministries of finance, national stock exchanges, Securities Market Agency (Republic of Slovenia), WIW, OeNB.

¹⁾ The privately placed central government securities include the exchange rate-indexed domestic debt denominated in foreign currency but payable in Slovenian tolar, amounting to 33% and 26%, respectively, of all outstanding privately placed central government securities in 1997 and 2000.

²⁾ Equity market capitalization is total market capitalization, i.e. including large stakes held by strategic investors, and not only portfolio equity capital ("free-float" market capitalization).

³⁾ Debt securities issued by the central bank are not included.

⁴⁾ "Publicly issued" means publicly issued and marketable, while retail securities are publicly issued and classified as nonmarketable.

⁵⁾ "Privately placed" central government securities have been transformed into marketable instruments to a large extent. Typically, a large part of these securities are bonds issued for the recapitalization of banks.

⁶⁾ "Other issuers" includes municipalities, banks and companies. (The volume of municipal bonds outstanding is rather small in all these countries.)

Almost all the benchmark equity indices calculated by the stock exchanges concentrate on the blue-chip companies of the main market segments. Within these benchmark indices, the five highest capitalized shares have a cumulative weight of (far) more than 50%.¹⁾ Minimum listing requirements of CEE stock exchanges are quite different, the Budapest Stock Exchange being the most restrictive, followed by Warsaw (Benoit, Demel, Reiningger, 2001).

The market capitalization (at face value) of *debt securities denominated in local currency (LCY)* in absolute U.S. dollar terms largely mirrored the absolute size of the total economy at the end of 2000 (e.g. USD 34.3 billion for Poland, USD 2.1 billion for Slovenia) as table 14 shows.

¹⁾ These indices are mostly market capitalization-weighted price indices, only the Budapest index (BUX) is a total return index (Benoit, Demel, Reiningger, 2001).

However, the Hungarian market for debt securities is the largest one, both with and without privately placed securities, if measured by market capitalization (at face value) relative to GDP. It is followed by the Czech Republic and Poland, which have about the same market size.

The smaller size of markets for debt securities denominated in local currency (relative to GDP) in the CEEC-5 in comparison with the most developed market economies is attributable to the lower public debt burden in the CEECs and to the higher (inherited) share of foreign currency-denominated debt in total public debt.

Thus, the Hungarian capital markets – both the equity market and the market for debt securities denominated in local currency – have the biggest weight within the whole national economy among the CEEC-5.

The *total equity market capitalization* was smaller than the *market capitalization of debt securities* denominated in local currency in Poland and Hungary at year-end 2000. However, it was bigger than the market capitalization of *publicly issued* debt securities (excluding retail securities) in all countries. On the other hand, the *free-float equity market capitalization* was probably by far lower than the market capitalization of *publicly issued* debt securities (excluding retail securities) in all countries.

Concerning the *issuer structure* of the market for debt securities in local currency, central government debt securities are predominant in each of the CEEC-5. It is only in the Czech Republic that debt securities of other issuers play a significant role compared to central government securities. In this country, the market capitalization of (mostly) long-term debt securities of other issuers even exceeded the market capitalization of long-term central government debt securities at the end of 2000. However, it is worth mentioning that in Poland the market for privately placed corporate debt securities, above all short-term commercial paper, grew dynamically from 1997 to 2000. Interestingly, companies are the largest group of investors in these securities, accounting for 39% of the nominal debt value in October 2000, followed by banks with 36% and insurance companies with 10% (CERA, 2001).

Looking at the *maturity structure* of all publicly issued debt securities (of the central government and other issuers), the volume of long-term paper was clearly larger than that of short-term paper in all countries at the end of 2000, reflecting the success of financial stabilization and disinflation. Also within the outstanding publicly issued debt securities of the central government only, long-term instruments were predominant in all countries, with the Czech Republic being the notable exception. Moreover, in the Czech Republic the outstanding volume of T-bills increased from 1997 to 2000, while it markedly decreased in Poland, Hungary and Slovakia. On the other hand, Poland, Hungary as well as the Czech Republic already have fixed-rate government bonds with a 10-year maturity or, in the Czech Republic, even with a 15-year maturity.

Another sign of the advances of the bond markets, in particular in Poland and Hungary, is the growing share of fixed-rate government bonds, while in the Czech Republic government bonds are traditionally fixed-rate bonds. In Poland, the share of fixed-rate bonds' face value in the nominal value of all

publicly issued central government bonds denominated in local currency (excluding retail securities) grew from 59% at the end of 1997 to 76% at the end of 2000. In Hungary, the share of fixed-rate bonds' face value in the nominal value of all (publicly issued and privately placed) central government bonds denominated in local currency grew from 47% at the end of 1997 to 65% at the end of 2000. On the other hand, in Slovenia, all government bonds are either inflation indexed or exchange rate-linked instruments.

3.4 Liquidity of Securities Markets

Poland stood out with the highest *equity turnover* in absolute U.S. dollar terms in 2000, after turnover had more than doubled from 1998 to 2000. In contrast, equity turnover only moderately increased in the Czech Republic and even declined in Hungary (from USD 16 billion in 1998). However, relative to nominal GDP, the top position of Hungary in terms of equity market turnover was still pronounced in 2000 at 26.2% of GDP (see table 15).

Within the equity markets, trading of shares takes place primarily on the main market segment of the stock exchange, where the most liquid blue-chip companies are listed. Except in Slovenia, the share of the main market segment in total turnover typically amounts to more than 80%.

Again, Poland had the highest *turnover of debt securities in local currency* in absolute terms in 2000 (USD 167.5 billion). And again, Hungary had by far the highest turnover in relative terms, with a level of 154% of GDP. The Czech Republic came second. From 1999 to 2000, the turnover of debt securities in local currency rose by more than 30% in Poland and in Slovenia, while it fell by more than 20% in Hungary and in the Czech Republic.

The turnover in debt securities was five to ten times as high as the turnover in equities in Poland, Hungary and the Czech Republic. In contrast, it is

Table 15

Secondary Market Turnover¹⁾ in 2000					
	Poland	Hungary	Czech Republic	Slovakia	Slovenia
<i>USD million</i>					
Equity markets	19,452	12,106	6,845	272	943
Debt securities in local currency ²⁾	167,541	70,840	66,931	..	253
thereof: central government ³⁾	167,541	70,669	50,651	..	201
thereof: T-bills ⁴⁾	97,381	19,120	42,088	..	0
thereof: T-bonds	70,160	51,550	8,564	3,959	115
thereof: other issuers	0	170	16,279	488	53
<i>% of GDP</i>					
Equity markets	12.2	26.2	13.8	1.4	5.2
Debt securities in local currency ²⁾	105.5	153.6	135.2	..	1.4
thereof: central government ³⁾	105.5	153.2	102.3	..	1.1
thereof: T-bills ⁴⁾	61.3	41.4	85.0	..	0.0
thereof: T-bonds	44.2	111.8	17.3	20.6	0.6
thereof: other issuers	0.0	0.4	32.9	2.5	0.3

Source: Central European Rating Agency (CERA S.A.), national ministries of finance, national stock exchanges, Securities Market Agency (Republic of Slovenia), WIW, OeNB.

¹⁾ Turnover is single counted.

²⁾ Slovenia and Slovakia: Turnover in debt securities includes the turnover on the stock exchanges only.

³⁾ Turnover in local currency-denominated debt securities of the central government includes turnover in privately placed securities, which seems to be more important in Slovenia than in the other countries. In any event, no data on the turnover of such securities are available for the other countries.

⁴⁾ The high turnover in T-bills is to a significant extent caused by sell and buy-back operations. This explains over 75% of the T-bill turnover in Poland, for instance.

striking that in Slovenia not only were the relative levels much lower than in the other countries, but also that equity turnover was significantly higher than the turnover of debt securities.

As to the *maturity structure*, the turnover in T-bills was lower than the turnover in T-bonds only in Hungary. Moreover, in Hungary the turnover in T-bills (in percent of GDP) was even lower than in Poland and in the Czech Republic, while the turnover in T-bonds (in percent of GDP) was far higher. This exceptional situation in Hungary can probably be explained by the following facts: (1) unlike in Poland and the Czech Republic, the Hungarian T-bill market was not open to foreign investors before June 2001, while the T-bond market was accessible to them, (2) in general, the T-bond market in Hungary already constitutes an institutionally more developed alternative for domestic investors than that in other countries of the CEEC-5. However, it is noteworthy that in Poland bond market turnover developed particularly well recently, more than doubling from 1999 to 2000.

Relating secondary market turnover to year-average market capitalization gives a measure of the *liquidity* of the capital markets. With foreign trading activity strong, the Hungarian equity market was clearly the most liquid market if measured by the turnover ratio based on total market capitalization.

The liquidity of the Hungarian equity market was even comparable to that of the equity markets in the most developed market economies. With total equity turnover amounting to 110% of market capitalization in 1998 and 85% in 2000, the Hungarian equity market reached the liquidity levels of the U.S. equity market (106% in 1999).

Table 16

Market Liquidity¹⁾ in 2000

turnover in % of year-average market capitalization

	Poland ²⁾	Hungary ²⁾	Czech Republic	Slovakia	Slovenia
	%				
Equity markets	63.6	85.3	54.7	7.9	25.6
Debt securities in local currency	539.9	447.5	657.5	..	11.1
thereof: central government	599.3	452.6	786.1	..	10.0
thereof: T-bills	1,601.4	615.3	1,053.8	..	0.0
thereof: T-bonds	441.5	691.8	349.6	267.6	53.3
thereof: other issuers	0.0	78.9	435.7	110.0	18.9

Source: Central European Rating Agency (CERA S.A.), national ministries of finance, national stock exchanges, Securities Market Agency (Republic of Slovenia), WIIV, OeNB.

¹⁾ The liquidity ratios are based on single counted turnover.

²⁾ The turnover in privately placed local currency-denominated debt securities of the central government was assumed to be zero for the purpose of calculating the liquidity ratios of all central government debt instruments and of all debt securities in local currency.

Reflecting the difference in turnover, market liquidity is considerably higher in both the short-term and the long-term debt securities market than in the equity market. Slovenia constitutes an exception when considering the whole debt securities market (including e.g. privately placed government bonds), but it is in line with the other countries if only the publicly issued T-bonds are taken into account.

Within the debt securities market, the market for central government securities was far more liquid than that for securities of other issuers in

2000. Within the market for central government securities, the T-bill market was significantly more liquid than the T-bond market in Poland and the Czech Republic, but not so in Hungary (see the above explanation on the turnover of T-bills in Hungary). In the Czech Republic, the market for T-bonds alone was even less liquid than that for securities of other issuers in 2000.

3.5 Foreign Participation in the Equity Markets

The share of the stock of foreign *portfolio investment* in total *market capitalization* at the end of 2000 was significantly higher in Poland, Hungary and the Czech Republic, with values between 18.6% and 26.1%, than in Slovakia and Slovenia, where it was below 5%, as table 17 shows.

Table 17

Market Participants					
stock of foreign portfolio equity investment¹⁾					
end of period	Poland	Hungary	Czech Republic	Slovakia ²⁾	Slovenia
	% of total market capitalization				
1997	21.5	17.0	21.2	..	8.3
2000	18.6	25.0	26.1	2.0	4.5

Source: national central banks, national stock exchanges, OeNB.
¹⁾ The stock of foreign portfolio equity investment is related to total market capitalization and not only to the outstanding portfolio equity capital (free-float market capitalization).
²⁾ At the end of 1999, the stock of foreign portfolio equity investment amounted to 3.8% of total market capitalization.

At first glance, this share does not seem to be particularly high in Poland, Hungary and the Czech Republic, either. However, it has to be stressed again that *total market capitalization* includes all strategic stakes as well. Thus, the implied share of foreign portfolio holdings in *total portfolio market capitalization* (free-float market capitalization) is significantly higher.

Unfortunately, a breakdown of the ownership structure of the total capital of all the listed companies exists only for Hungary. In this country, the

Table 18

Ownership Structure of Companies			
Listed on the Domestic Stock Exchange in Hungary			
	1997	1999	2000
	share in total, in %		
Total equity capital outstanding	100.0	100.0	100.0
All domestic investors	31.7	20.8	29.3
Government	14.2	7.1	8.3
Local government	1.0	0.8	0.7
Other general government	13.2	6.3	7.5
Private nonfinancial sector	13.0	9.9	14.9
Households	9.4	5.9	8.0
Nonprofit institutions	0.0	0.2	0.1
Nonfinancial companies	3.5	3.9	6.7
Institutional investors	3.7	3.3	4.9
Investment funds	0.9	0.5	1.1
Insurance companies, pension funds	1.1	1.3	2.6
Other financial corporations	1.7	1.5	1.2
Credit institutions	0.7	0.6	1.2
All foreign investors	68.3	79.2	70.7

Source: National Bank of Hungary, OeNB.

share of *total* foreign investment in the listed companies' equity, comprising both direct and portfolio investment, was about 70.7% at the end of 2000. The share of the government amounted to 8.3%.

Under the assumption that *all private domestic equity investment* (by households, companies, institutional investors and credit institutions) is regarded as *portfolio investment* in the sense of nonstrategic holdings, *foreign portfolio investors* held about 55% of *total portfolio investment* in the Hungarian equity market at the end of 2000, although their share in total market capitalization was no more than 25%.

Table 19 shows *minimum shares* of foreign buying or selling in percent of total equity market turnover. These values are derived by calculating the share of either total buying or total selling (whichever was higher) by foreign portfolio equity investors (according to balance of payments statistics) in total secondary market turnover for any given year. As the calculated share includes only either total buying or, alternatively, total selling by foreign investors, it does not include the opposite transaction (i.e. either selling or, alternatively, buying) by foreign investors with domestic investors (i.e. selling to or buying from domestic investors). Therefore, it has to be stressed that the actual shares of foreign buying or selling very probably exceed these minimum levels by far. (However, it is not possible to simply add the figures of buying and selling and relate that sum to total market turnover, as such a calculation would involve a significant amount of double counting which might even lead to ratios above 100%.) Based on these minimum shares of foreign portfolio investors' activity in the total *turnover* of the equity market, we may estimate the actual shares of foreign portfolio investors in Poland, Hungary, the Czech Republic and Slovakia as clearly above 50%, perhaps about 60% to 75%.¹⁾

Table 19

Foreign Share of Equity Market Turnover					
minimum share of foreign buying or selling					
	Poland	Hungary	Czech Republic	Slovakia	Slovenia
	% of total equity market turnover				
1996–1997 ¹⁾	33.5	68.1	37.0	..	5.5
1999–2000 ²⁾	56.4	39.3	50.7	37.8	1.9

Source: national central banks, national stock exchanges, OeNB.
¹⁾ Average share in the years 1996 and 1997.
²⁾ Average share in the years 1999 and 2000.

In addition, trading in CEEC-5 equities takes place not only on the local stock exchanges, but also on foreign stock exchanges, either in the form of ordinary shares or mostly in the form of depositary receipts (DRs). Because of their specific advantages for both CEE companies and investors, trading in DRs has gained considerable importance. For CEE companies, DRs offer the

1) The breakdown for the turnover (including sell and buy-back operations) in local currency-denominated central government bonds by market participants for the year 2000 in Hungary shows the share of foreign investors as 8.5%, far behind the shares of credit institutions (42%), institutional investors (21%) and companies (11.5%) (Hungarian State Treasury, 2001).

advantage of enhancing the liquidity of their shares, widening their investor base as well as improving their corporate image. As DRs are denominated in U.S. dollars and traded on an international exchange, their advantages for institutional investors are related to their better liquidity, the absence of conversion costs and to familiar market practices (Benoit, Schantl, Weyringer, 2001). Assessing trading in CEEC-5 equities on both local and foreign stock exchanges, it is fair to state that trading in these equities is overwhelmingly done by foreign portfolio investors, reflecting the high degree of integration of CEEC-5 capital markets in international markets. Moreover, at least in the case of Hungary, the majority of the equity of listed companies is owned by foreign portfolio or foreign strategic investors.

4 The Structure of Financial Intermediation in the CEEC-5

4.1 Funding of the Private Sector

4.1.1 International Comparison of the Private Sector's Funding Sources

The stock of domestic credit to the private nonfinancial sector provided by resident banks was markedly lower in the CEEC-5 at 25.6% to 53.3% of GDP on average in 2000 than in Portugal and Spain, the Southern European catching-up economies within the EU. In these two countries, this ratio was 84.1% and 65.1%, respectively, of GDP on average in 1998, the year before entering the euro area (see table 20).

Moreover, among the CEEC-5, the Czech Republic and Slovakia exhibited the highest levels at 53.3% and 46.2% of GDP, respectively. Their relatively high levels can be explained mainly by historical developments (see section 2.5). In addition, it has to be stressed that according to the national banking supervision reports, classified loans (i.e. watch loans and nonperforming loans) amounted to 12.8% of GDP in the Czech Republic and 8.6% of GDP in Slovakia (despite the reduction due to transfers of nonperforming loans to the state-owned consolidation bank, which simultaneously decreased the outstanding stock of domestic credit in both countries; see also section 2.5), as against 5.3% of GDP in Hungary and 3.4% of GDP in Poland at mid-year 2000. If we take into account the accumulated loan provisions at the time, the remaining net volume of classified loans was 8.0% of GDP in the Czech Republic, 4.2% in Hungary and 2.1% in Poland. These classified loans included as the lowest-ranked category so-called bad loans, or loss loans, which amounted to a gross volume (i.e. before the deduction of provisions) of 4.5% of GDP in the Czech Republic, 0.6% in Hungary and 1.2% in Poland (see also section 2.6).¹

Furthermore, coming back to the comparison with Southern European economies, around half of the domestic credit to the private nonfinancial

1 On the other hand, Slovenia had even higher level of classified credits than the Czech Republic at mid-year 2000 (20.1% of GDP and 16.4% of GDP net of provisions). However, these classified credits include off-balance sheet items and, in addition, are to a larger extent covered by collateral. The collateral value amounted to 9.9% of GDP against about 3.5% of GDP in the Czech Republic. Moreover, the volume of outstanding loss loans (2.4% of GDP) was lower than in the Czech Republic. It has to be noted that there is fairly large leeway for national differences in categorizing the outstanding credit stock into standard loans, watch loans and nonperforming loans (i.e. substandard, doubtful and loss loans).

sector was extended to households in Portugal and Spain, while in the CEEC-5 the corresponding share of household credits amounted to between only 10% in Slovakia and 33% in Slovenia.

The stock of foreign cross-border credit granted by nonresident banks to private nonbanks was between 11% and 30% of GDP in the CEEC-5 on average in 2000, while it was 12% and 6%, respectively, of GDP in Portugal and Spain on average in 1998. In all the CEEC-5 as well as in Portugal and Spain, these foreign banks' credits are predominantly medium- to long-term credits. While the stock of foreign banks' credit was tangibly lower than the stock of domestic banks' credit to private nonbanks in all countries listed in table 20, its growth rate was significantly higher than the growth rate of the stock of domestic credit to private nonbanks only in the CEEC-5, substantially increasing its ratio to GDP there. This was certainly linked to the liberalization of medium- and long-term capital flows in the 1990s. On the other hand, the corresponding ratio of the stock of foreign banks' credit to GDP even declined in Portugal and Spain, while the ratio of the stock of domestic credit to GDP sharply increased.

The volume of cross-border liabilities of resident commercial banks was far higher in Portugal and Spain at 51.3% and 29.8%, respectively, of GDP on average in 1998 than in the CEEC-5, where it amounted to between 3.7% and 17.8% of GDP on average in 2000. In Portugal and Spain, these liabilities consisted above all of short-term capital. Correspondingly, the Czech Republic, which has had the most liberal regime for capital flows (including short-term capital) for several years, showed by far the highest ratio among the CEEC-5 at 17.8%. Also in the Czech Republic, these cross-border liabil-

Table 20

International Comparison of the Stock of Domestic and Foreign Credit													
to the Private Sector													
annual average outstanding volumes													
	Poland			Hungary			Czech Republic			Slovakia	Slovenia		
	1994	1997	2000	1995	1997	2000	1994	1997	2000	2000	1994	1997	2000
	% of GDP												
Domestic¹⁾													
to nonbanks	16.6	19.8	26.4	21.6	20.9	25.6	63.7	63.8	53.3	46.2	19.8	26.3	34.4
Foreign²⁾													
to nonbanks	1.9	4.2	11.0	5.5	9.3	13.0	10.8	16.9	17.1	29.6	8.9	15.1	20.2
to banks	1.5	2.1	3.7	3.6	8.9	11.6	4.6	17.6	17.8	4.5	2.4	6.3	8.2
	Portugal			Spain									
	1994	1997	1998	1994	1997	1998							
	% of GDP												
Domestic¹⁾													
to nonbanks	61.2	71.5	84.1	55.0	59.4	65.1							
Foreign²⁾													
to nonbanks	15.5	13.4	12.2	6.8	5.7	5.9							
to banks	20.2	41.3	51.3	21.4	25.2	29.8							

Source: IMF, national central banks, VIIW, OeNB.

¹⁾ Domestic credit to nonbanks comprises domestic credit extended by resident commercial banks (including foreign-owned banks) to private nonbanks.

Domestic nonbanks do not include "other financial institutions," with the exception of Portugal in the year 1994.

²⁾ Foreign credit excludes (cross-border) intercompany loans, but includes the outstanding stock of both cross-border loans extended by foreign banks and international bonds held by foreign investors.

ities of commercial banks were predominantly short-term, with a share of about two thirds of banks' total cross-border liabilities. This stands in contrast to, for instance, Poland. In Portugal and Spain, these ratios have increased substantially since the full liberalization of short-term capital flows at the end of 1992.

To sum it up, in our view the liberalization of short-term capital flows led to a huge inflow of short-term capital to refund resident banks in Portugal and Spain. This fueled the growth of domestic credit to the private nonfinancial sector, which – inter alia – led to a partial substitution of predominantly medium- and long-term cross-border credit taken out abroad from foreign banks by the private nonfinancial sector.

In contrast, most CEEC-5 had not yet fully liberalized short-term capital flows at the end of the year 2000, and the CEE country which did so early and comprehensively, the Czech Republic, showed a pattern different from that of Portugal or Spain. There, domestic credit growth does not seem to have been enhanced by the inflow of short-term capital to banks, and thus medium- and long-term cross-border credit by foreign banks to the private nonfinancial sector grew in parallel to that inflow. This indicates that the domestic banking system could not efficiently handle the additional funding to successfully compete with these foreign cross-border credits to private nonbanks. On the one hand, it is certainly true that the resident commercial banks could have done even worse by increasing domestic credit by imprudently channeling short-term funds taken up abroad into new, risky loans to the private sector, thus adding new nonperforming loans to the existing stock of such loans. On the other hand, the resident commercial banks did not use the short-term funds from abroad to extend new profitable loans to the private sector which could have been denominated in foreign currency and thus could have constituted an alternative to medium- and long-term funding to private nonbanks directly from abroad. Thus, the domestic banking system did not successfully intermediate foreign short-term funds to productive investments of the private sector. In addition, existing structural deficiencies (in particular at the corporate level) prevented the Czech economy from reaping the potential benefits of the early full liberalization of the capital account; moreover, this liberalization increased the vulnerability of the currency regime. In view of these developments, the full liberalization of capital flows was probably premature in the Czech Republic.

4.1.2 Comparison of the Channels of Financial Intermediation to Enterprises

The following table, table 21, shows components of external funding of enterprises relative to the gross fixed capital investment (GFCI) on average in the years 1997 and 1998 and – for the CEEC-5 – in the years 1999 and 2000.¹⁾

1 This table does not contain a comprehensive list of all possible sources of external funding. For instance, privately raised new equity capital is not included. Moreover, one should be aware that GFCI includes not only fixed capital investment by the corporate sector, but also household investment, in particular in housing.

International Comparison of Channels of Financial Intermediation to Enterprises

external corporate funding relative to gross fixed capital investment (GFCI)

	Poland		Hungary		Czech Republic		Slovakia		Slovenia		Portugal	Spain	Germany	U.S.A.
	1998 ¹⁾	2000 ²⁾	1998 ¹⁾	2000 ²⁾	1998 ¹⁾	2000 ²⁾	1998 ¹⁾	2000 ²⁾	1998 ¹⁾	2000 ²⁾	1998 ¹⁾	1998 ¹⁾	1998 ¹⁾	1998 ¹⁾
<i>net flows or changes in stocks in % of GFCI</i>														
Domestic sources														
Bank credit ³⁾	17.1	11.4	20.4	18.9	5.5	-8.6	..	-2.5	14.2	13.6	32.8	19.9	17.0	6.8
Bond issues	2.3	1.7	1.2	0.1	2.1	2.9	1.1	0.3	0.2	0.2	3.5	1.4	..	..
Equity issues ⁴⁾	2.8	1.3	0.4	0.0	0.0	0.9	..	0.0	0.0	0.0	7.6	4.8	3.8	14.3
Foreign sources														
Intercompany loans ⁵⁾	4.0	4.0	4.1	3.1	6.3	4.1	1.2	1.1	1.2	1.7	2.8	2.1	..	..
Bank loans ⁶⁾	2.8	3.3	3.2	13.6	5.3	3.7	14.6	-1.2	7.5	9.6	2.2	2.3	..	..
Bond issues ⁷⁾	2.2	1.4	-0.3	-0.1	1.8	1.0	0.1	4.4	0.1	-0.7	0.3	0.0	..	..

Source: Central European Rating Agency (CERA S.A.), Fédération Internationale des Bourses de Valeurs (FIBV), national central banks, national stock exchanges, Securities Market Agency (Slovenia), WIIV, OeNB.

¹⁾ 1998 = average ratio in the years 1997 and 1998.

²⁾ 2000 = average ratio in the years 1999 and 2000.

³⁾ Domestic banks' credit comprises domestic credit (including foreign currency-denominated credit) extended by resident commercial banks (including foreign-owned banks) to the corporate sector.

⁴⁾ Equity issues: capital-raising public offers on the stock exchange.

⁵⁾ Intercompany loans: net disbursements, i.e. disbursements minus repayments, by foreign (parent) company.

⁶⁾ Foreign banks' loans: net disbursements, i.e. disbursements minus repayments; includes the relatively small amount of enterprises' trade credit.

⁷⁾ Foreign bond issues: net issues of international bonds, i.e. gross issues minus repayments.

Generally, the internal sources of enterprises to fund their fixed capital investment are more important than the external sources in all the countries that are compared in table 21. Usually, depreciation is the most important part of internal funding, followed by retained profits. For the CEEC-5 it was shown that also the sale of already completely depreciated assets constituted quite an important source of funding in the years 1995 to 1998 (Köke, 2001).

In Poland, Hungary and Slovenia as well as in selected EU countries (Portugal, Spain and Germany), the change in the stock of domestic credit extended by resident banks to enterprises was the most important source of external funding to enterprises, with a ratio of between 11.4% and 32.8% of GFCI, while in the U.S.A. it was equity issuance due to capital increases, with a ratio of 14.3%. Hence, the predominance of loan-based ("bank-based") versus equity-based ("market-based") intermediation exists in both the EU and the CEEC-5. In the Czech Republic, the very low value of 5.5% on average in 1997 and 1998 was linked to the recession. Moreover, while the change in the stock of credit generally shows the difference between the flows of new lending and repayment, it may also reflect extraordinary changes. Thus, the negative values in the Czech Republic and in Slovakia on average in the years 1999 and 2000, reflect – inter alia – the transfer of nonperforming loans from the commercial banks to the state-owned consolidation banks.

In Hungary, Slovakia and Slovenia, net inflows from foreign cross-border credits granted by nonresident banks came second as a source of funding on average in the years 1997 to 2000, while in Poland and the Czech Republic net inflows from cross-border intercompany loans of transnational corporations were a slightly more important source of financing than foreign banks' credits. Corresponding to our analysis of the outstanding stock volumes, the net inflow from foreign banks' credit was also higher in the CEEC-5 than in

Portugal and Spain. In contrast, in Portugal and Spain equity issuance due to capital increases was the second most important source of external financing with a ratio of 7.6% and 4.8%, respectively, of GFCI.

In Poland and the Czech Republic, the net issuance of domestic debt securities ranked fourth among the categories listed with a ratio of 2% to 3% in the years 1997 to 2000. In these countries as well as in Slovakia, the corporate sector gained some financing by the net issuance of international debt securities in the period covered.

It was only in Poland that equity issuance due to capital increases made a nonnegligible contribution to enterprises' external funding. Its size was roughly similar to that of external funding by the net issuance of domestic debt securities and to that of the net issuance of international debt securities on average in the years 1997 to 2000. With the exception of Poland, equity issuance due to capital increases has not yet constituted an important source of external funding in the CEEC-5. Even in Poland, the level of such funding was considerably lower than that achieved in the selected EU countries presented in table 21 in the years 1997 and 1998. However, one should not forget that the equity markets have played some role as an additional channel for the sale of state stakes in Poland and Hungary (see subsection 4.2).

4.2 Funding of the Public Sector

4.2.1 The Role of the Equity Market for the Public Sector

Up to now, the most important positive contribution of equity markets in the CEEC-5 to the macroeconomic development of the respective countries probably consisted in providing a channel through which the state could sell stakes in companies as part of the overall privatization process. Proceeds from such sales reached about 0.9% of GDP in Poland on average in 1997 and 1998, while they were about 3.3% of GDP in Hungary in 1997. However, in Poland this ratio declined to 0.2% on average in 1999 and 2000, and there were no sizeable flotations by the Hungarian state in the years 1998 to 2000.

4.2.2 Sovereign Debt Securities Denominated in Local Currency

The publicly issued debt securities denominated in local currency gained considerable importance within the central government debt denominated in local currency, as table 23 shows. Such securities were the main or exclusive source of financing budget deficits, while in parallel the inherited stock of central bank loans denominated in local currency to the central government was cut back drastically. At the end of 2000, the share of publicly issued debt securities denominated in local currency (excluding retail securities) in central government debt denominated in local currency amounted to between 70% and 100% in the CEEC-5, with the exception of Slovenia. In Slovenia, the low volume of publicly issued debt securities outstanding can partly be explained by the relatively low budget deficits during the 1990s and the relatively strong reliance on international bond issues.

The share of external and internal debt denominated in foreign currency in total central government debt fell considerably from 1993 to 2000 in Poland and the Czech Republic and from 1997 to 2000 in Hungary. In Poland, this sharp decline can partly be explained by the partial write-off

Table 22

Ratio of Central Government Debt to GDP			
end of period	1993	1997	2000
	%		
Poland	82.9	46.9	38.7
Hungary	88.7	62.9	55.5
Czech Republic	15.6	10.7	15.1
Slovakia	..	..	25.1
Slovenia	21.1	23.2	25.0

Source: national ministries of finance, OeNB.

of external debt by the London Club and the Paris Club in 1994. At the end of 2000, the share of foreign currency-denominated debt in total central government debt was lowest in the Czech Republic, which had, in addition, also the lowest total central-government-debt-to-GDP ratio, as table 22 shows. It is striking that in Slovenia the share of foreign currency-denominated debt tangibly increased from 1993 to 1997, while being roughly constant from 1997 to 2000. At the end of 2000, Slovenia and Slovakia had the highest share of foreign currency-denominated debt in total central government debt among the CEEC-5. However, these countries' vulnerability to nominal depreciations is reduced by the fact that total central-government-debt-to-GDP ratios are rather low in both countries.

Comparing the share of foreign currency-denominated debt in total debt of the central government (table 23) with the corporate sector's foreign currency position in percent of total credit to the corporate sector (table 5), we can see that the government's share of foreign currency debt was roughly similar to the corporate sector's net foreign currency position in Poland and Hungary and to its gross foreign currency position in Slovakia and Slovenia. Thus, the vulnerability of the public sector and the corporate sector to nominal depreciations of the local currency may seem comparable at first sight. However, the beneficial impact of nominal depreciations on the public sector's revenue side will probably be rather limited, while it will very probably be more pronounced on the corporate sector's revenues.

Table 23

Structure of Central Government Debt													
by type of debt													
end of period	Poland			Hungary ¹⁾			Czech Republic			Slovakia	Slovenia ²⁾		
	1993	1997	2000	1993	1997	2000	1993	1997	2000	2000	1993	1997	2000
	%												
Debt denominated in local currency	21.9	40.2	52.3	56.0	52.5	60.7	54.9	78.9	93.2	50.7	74.2	38.9	37.4
Publicly issued	15.3	27.1	37.9	14.7	30.9	42.3	23.4	75.6	93.2	50.7	0.3	3.8	6.1
Retail bonds	0.0	0.0	0.7	1.3	4.5	7.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Privately placed	3.3	5.8	8.9	15.2	7.7	7.0	0.0	0.0	0.0	0.0	71.2	32.6	26.3
Loans, etc.	3.3	7.3	4.9	24.8	9.4	4.2	31.4	3.3	0.0	0.0	2.6	2.4	5.1
Debt denominated in foreign currency	78.1	59.8	47.7	44.0	47.5	39.3	45.1	21.1	6.8	49.3	25.8	61.1	62.6
Internal	7.1	6.7	2.4	0.0	0.3	0.3	0.0	0.0	0.0	0.0	12.9	20.5	12.4
External	71.0	53.1	45.3	44.0	47.2	39.0	45.1	21.1	6.8	49.3	13.0	40.6	50.2

Source: national ministries of finance, OeNB.

¹⁾ The external debt for the government that was channeled through the central bank is included in the external debt denominated in foreign currency in 1993, 1997 and 2000.

²⁾ The internal debt denominated in foreign currency includes the exchange rate-indexed domestic debt instruments.

Table 24 shows the structure of holders of publicly issued central government debt securities denominated in local currency (including retail securities). In Poland and Hungary, the shares of both domestic nonbanks and foreign portfolio investors increased at the expense of the share of the banking system from 1997 to 2000. In Poland, this development was a continuation of the change from 1993 to 1997. In contrast, the Czech Republic witnessed a similar development only from 1993 to 1997 and a quite interesting reversal of this trend from 1997 to 2000. Thus, in the Czech Republic as well as in Slovenia, the commercial banks were still the largest group of investors, with a share of 65% and 62%, respectively. Central banks held no such securities at the end of 2000 in any of the CEEC-5. It is probably only in Hungary that the demand for central government securities is really broadly based and, in particular, directly household-based with a large and rapidly growing share (21% at the end of 2000). This was to a large extent due to the policy of issuing debt securities directly aimed at households as investors, i.e. publicly issued, but nonmarketable bonds (retail bonds). In contrast, Poland did not start to issue such bonds ("savings bonds") until 1999. It is noteworthy that the share of foreign investors did not exceed 18% in any of the CEEC-5 at the end of 2000.¹⁾

Table 24

Holder Structure										
of Publicly Issued Central Government Debt Securities in Local Currency¹⁾										
share in total										
end of period	Poland			Hungary		Czech Republic			Slovenia	
	1993	1997	2000	1997	2000	1993	1997	2000	2000	
	%									
Total volume outstanding	100	100	100	100	100	100	100	100	100	100
All domestic investors	100	91	83	96	82	100	91	96	100	100
All nonbanks	14	32	47	59	61	3	45	31	39	39
thereof: retail securities	0	0	2	13	15	0	0	0	0	0
Intra-government									2	
Private nonfinancial sector	..	..	..	39	35	1	13	2	3	
Households				18	21	0	2	1		
thereof: retail securities	0	0	2	13	15	0	0	0	0	
Nonprofit institutions										
Nonfinancial companies	..	..	..	21	14	1	11	2	3	
Institutional investors				20	27	2	32	27	36	
Privatization funds	..	..	..	..	..	..	..	2	..	
Mutual funds	..	..	..	9	6	..	..	3	..	
Pension funds	..	..	..	2	8	..	..	..	..
Insurance companies	..	..	..	10	12	..	..	19	18	
Other financial corporations	..	..	..	..	..	..	..	2	..	
Banking system	86	59	35	37	21	97	46	65	62	62
Credit institutions	46	59	35	32	20	81	46	64	62	
Central bank	39	0	0	5	0	16	0	0	0	
All foreign investors	0	9	17	4	18	0	9	4	0	0

Source: national ministries of finance, OeNB.

¹⁾ Includes retail securities (classified as publicly issued but nonmarketable debt securities).

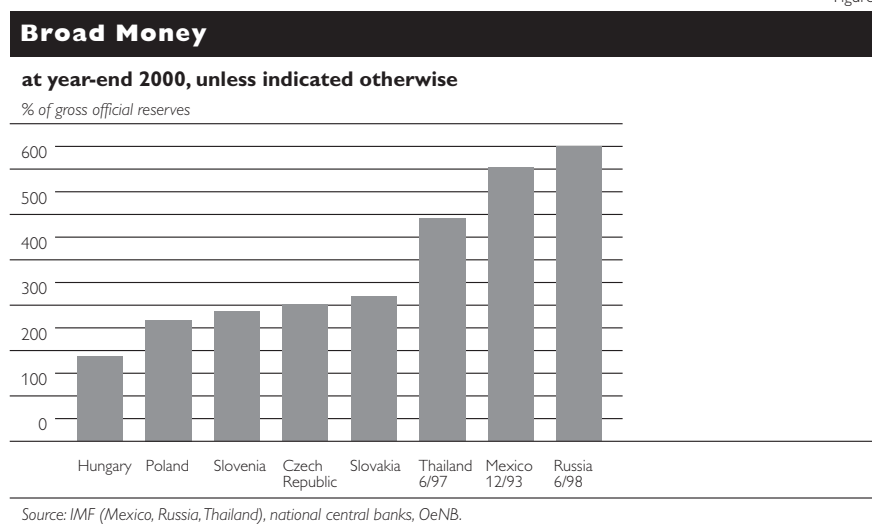
1 In the Czech Republic, where a sizeable corporate bond market coexists with the government bond market, the share of foreign investors in the total capitalization of the local currency-denominated bond market (including both the corporate and the government bond market) can be estimated to have fallen from 17.8% at the end of 1997 to only 5.4% at the end of 2000. This probably not only reflects the low level of yields at the end of 2000 in the Czech Republic, but also negative foreign perceptions of the debt servicing ability of the corporate sector.

5 Vulnerability to Financial Contagion

Recent experience with financial crises in Mexico, Southeast Asia and Russia demonstrated the importance (besides other factors) of vulnerability to short-term capital outflows for the outbreak and transmission of financial turbulences. Thus, in the following section the issue of the CEEC-5's current vulnerability to short-term capital outflows will be analyzed, using a number of indicators.

Figure 6 shows the relation between a broad range of liquid assets that can be easily switched into foreign assets (broad money including foreign currency-denominated deposits) and gross official reserves. As the figure shows, this ratio was markedly lower in the CEEC-5 at the end of 2000 than in a number of countries hit by financial crises.

Figure 6

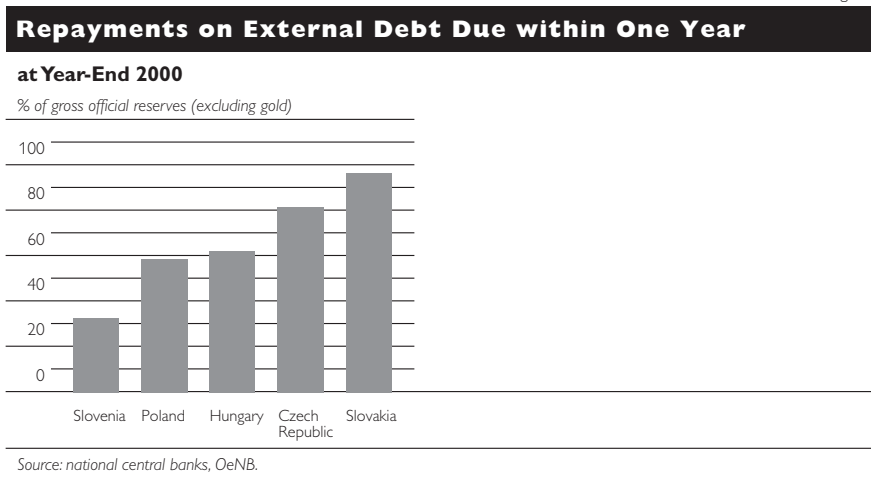


Another indicator that has been associated with financial contagion effects in the recent past is the ratio of external debt repayments due in the short term to gross official reserves. This ratio comprises both short-term external debt (i.e. external debt with an original maturity of below one year) and repayments on medium- and long-term external debt due within one year. Such ratios are shown in figure 7 below for the CEEC-5.¹⁾ In each of the CEEC-5, this indicator was below 100%, with a particularly low ratio for Slovenia.

However, it should be noted that this indicator does not include redemptions on local currency-denominated debt instruments held by foreign investors which are due within one year and which could be quickly transferred abroad unless they are reinvested. These flows are worth mentioning in Poland and especially in Hungary, where they reached 9% of gross official reserves at the end of 2000.

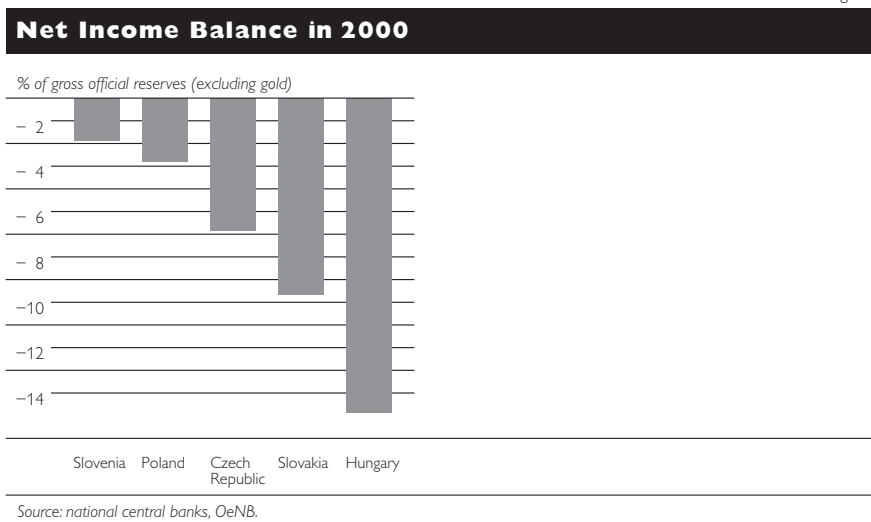
¹ These ratios were partly derived on the basis of estimates, assuming an average maturity of four years for the outstanding stock of private external debt in Poland and Slovenia and of total external debt in the Czech Republic and Slovakia. They exclude the repayment due within one year on local currency-denominated bonds held by foreign investors.

Figure 7



Another item that is not included in the ratio between external debt repayments due in the short term and gross official reserves, but may contribute to short-term commitments in foreign currency, is interest payments on external debt as well as on foreign-held debt instruments denominated in local currency. These flows are the main factor in the negative net income balance in the CEEC-5, with the exception of the Czech Republic. As figure 8 shows, negative net income reached sizeable amounts in Hungary and the Slovak Republic (see figure 8).

Figure 8



As shown in section 3, the liquidity of domestic capital markets is relatively high in Poland, Hungary and the Czech Republic. Thus, foreign investors can quickly sell their portfolio investment denominated in local currency and demand foreign currency for the conversion and repatriation of their proceeds. Therefore, table 25 reports the total stock of foreign-held portfolio investment in local currency-denominated debt securities and in equities in relation to gross official reserves. In general, this ratio is higher for equity portfolio investment.

Table 25

Risk Exposure to Foreign Capital Outflows

foreign portfolio holdings in % of official gross reserves (excluding gold)

end of period	Poland			Hungary			Czech Republic			Slovakia		Slovenia		
	1997	1999	2000	1997	1999	2000	1997	1999	2000	1999	2000	1997	1999	2000
	%													
Equity	13	20	22	31	40	27	31	21	23	4	2	5	5	5
Debt ¹⁾	8	7	16	4	16	20	13	9	5	..	..	0	0	0

Source: BIS, IMF, national central banks, national ministries of finance, OeNB.

¹⁾ "Debt" comprises foreign portfolio holdings of debt securities denominated in local currency of both the central government and other issuers.

However, equity portfolio investment can basically be expected to cause less pressure than debt portfolio investment on official reserves in the case of outflows of portfolio investment. A massive flight by foreign investors from the domestic securities markets would cause a larger fall in equity prices than in debt prices (because of the higher volatility of equity), thereby reducing the value of proceeds from the sale of securities to be converted into foreign currency.

On the other hand, it has to be stressed that the contribution of the equity markets to overall macroeconomic developments has been rather modest up to now when measured in terms of the funding of the corporate sector (see section 4.1). Until now, the relatively liquid equity markets have above all provided owners of equity capital, mainly foreign investors, with additional opportunities to optimize their asset portfolio according to their preferences and risk attitudes (see section 3). This raises the question whether the stability risk of financial contagion that the strong foreign participation involves for the whole economy – although it is probably still at a manageable level – does not exceed the benefits of international integration of CEE equity markets for the national economies, in particular in Poland, Hungary and the Czech Republic.

The size of accumulated short-term capital inflows other than portfolio investment, in particular the stock of short-term loans to enterprises and deposits with domestic banks, and its potentially destabilizing impact (e.g. on the confidence of residents into their own national currency) were still relatively small at the end of 2000 (see section 4.1), above all because such inflows were stemmed by restrictions on capital movements in Poland, Hungary and Slovenia.

This analysis does not deal with the risk off-balance-sheet transactions imply for gross official reserves. However, we do not expect this risk to be very large, as the figures published indicate that off-balance-sheet positions are rather small. In Poland, Hungary and Slovenia, these positions appear to be small mainly because of the restrictions on off-balance-sheet transactions applicable at the end of 2000.

When evaluating risks to financial stability arising from sudden capital outflows, exchange rate regimes have to be taken into consideration, too. As none of the countries covered in this paper uses an explicit exchange rate target with a narrow band at present, the central banks are not committed to meeting demand for foreign currency at a fixed rate. Thus, capital

outflows produce less pressure on official reserves than under a fixed-rate regime.

On the basis of the indicators presented above, it seems fair to conclude that vulnerability to sudden sizeable outflows of foreign capital (in addition to the scheduled debt service), which, for instance, may be triggered by financial contagion from the international markets and may itself provoke an outflow of domestic capital, can be considered rather low in the CEEC-5. However, this conclusion may change fairly rapidly if circumstances change accordingly.

Cutoff date for data: June 15, 2001.

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