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Structure and performance of central and eastern european banking sectors

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STRUCTURE AND PERFORMANCE OF CENTRAL AND EASTERN EUROPEAN BANKING SECTORS

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1. Introduction*

The banking sectors of central and eastern Europe have recently come under the spotlight owing to radical reforms in the sector, and to the imminent entry of some central and eastern European countries to the European Union (EU). This paper examines the banking sectors of the seven largest countries in the region: Bulgaria, the Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia (hereinafter the CEEC7[1]).

Interest in the CEEC7 has been fuelled by the liberalisation and privatisation of their economies in recent years, spurred on partly (but not solely) by the prospect of EU accession. The abolition of the barriers preventing the free movement of goods and capital, together with the gradual harmonisation of regulations and institutions with those of western countries, has increased these markets' appeal to European industries—including banking and finance: the privatisation and reorganisation of the CEEC7 banking sectors has in fact been partly achieved thanks to major investment from European banks, with Italian banks leading the way in many cases.

In light of the above considerations, the main aim of this paper is to outline the structure and growth potential of the CEEC7 banking sectors, paying particular attention to prospects for the medium term. The importance of such issues is grounded on the relationship between the real economy and the financial sector.

First and foremost, banking stability is a key factor in encouraging the development of a healthy market-based economy, which in turn is essential to ensure sustainable growth. There is extensive empirical literature consistent with the hypothesis that countries with well-developed financial systems generally benefit from better growth conditions as savings are allocated into more productive investments. Moreover, a solid and efficient banking system means that monetary policy is transmitted more effectively; this is particularly important in the Euro Area, where monetary instruments play a crucial role in economic policy.

This paper is divided into five main parts. The first (section 2), gives a summary of the restructuring and privatisation process undergone by the CEEC7 banks, and highlights the important contribution provided by foreign investors. The second, third and fourth parts (sections 3, 4 and 5) analyse the most significant structural and performance aspects of the CEEC7 banking sectors, describing national characteristics and development over the last five years. Particular attention is paid to market concentration and the level of banking intermediation, as well as to credit quality and capitalization. Section 6 examines the growth potential for these banking systems over market economies in general, and the relationship between bank reform and the development of banking intermediation, while section 7 concludes the analysis.

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1 *Other candidates for EU accession are Cyprus, Estonia, Latvia, Lithuania and Malta. At present, not all countries fully comply with the economic and political conditions for entry, or have fully adopted EU law, but a first group of countries is expected to join the EU fairly shortly. Of the CEEC7, Romania and Bulgaria do not yet meet the minimum requirements for entry, while the remaining five countries should join in 2004.*

2. Privatisation

Privatisation has taken place in all the CEEC7, albeit at different speeds and in different ways. However, some features are common to all:

a) creation of a two-tier system, with functions being divided between the central bank and commercial banks. This was done by spinning off, on a functional or regional basis, the banking assets of the state monobanks into newly-created State-Owned Commercial Banks (SOCBs);

b) gradual liberalisation, by removing operational restrictions on specialist banks and abolishing the barriers which had previously prevented private operators from providing banking services;

c) privatisation of the SOCBs via tender (public in Hungary and Poland, and private in Slovenia, Romania and Bulgaria[2]), the distribution of vouchers (in Slovenia, the former Czechoslovakia, and later on in the Czech Republic) and IPOs (for example OTP in Hungary).

The privatisations were preceded by wide-ranging restructuring programmes which required a large amount of balance sheet cleaning and recapitalisation by the state. In some countries the costs of this process totalled a significant percentage of GDP. Through these programmes, Hungary, Poland, Bulgaria and Slovenia were able to stabilise their banking sectors by 1997, while the other countries had to enact further measures[3].

Privatisation was the cornerstone of the restructuring process. Observers agree that of the seven countries, those which today have the most highly-developed and solid banking sectors are the ones that carried out rapid and decisive privatisations, selling the assets to strategic investors. Hungary and Poland have been most successful in this area.

The process has been most radical in Hungary. As early as 1999, this was the only country where state ownership of banks amounted to less than 10% of banking assets. The privatisation process is mainly complete now, at least as regards the major banks, and Postabank remains the only large-sized institution entirely in public hands.

In Poland restructuring measures enacted since 1993 have been so effective that its fiscal cost is estimated to be the lowest of the CEEC7 (Wagner and Iakova, 2001), thanks partly to the government's firmly ruling out any further recapitalisation. Privatisations were initially implemented in two stages: the sale of a first tranche, divided between the market and single investors, and the subsequent sale of the remainder to the majority shareholder, which thus acquired control. More recently the process has been carried out in a single phase, in favour of major core shareholders. However, in 2000-01 there was less activity on this front, and the state's ownership of bank assets has stabilised at about a quarter, as PKO, Poland's top savings bank, has yet to be privatised. In those countries which have taken a softer approach to privatisation, restructuring and modernisation have occurred more slowly. In the Czech Republic non-financial enterprises and banks were initially (between 1992 and 1994) privatised

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[2] *In Bulgaria, the privatisation law of 1992 was amended in March 2002 to harmonise privatisation procedures with European standards and improve transparency. Under the new law, companies to be privatised will be sold only through international invitations to tender or public auctions. The sale of state companies to management and/or workers will no longer be considered as privatisation. The aim is to speed up the sale of state companies.*

[3] *For a more detailed examination of credit quality and capital ratios see section 4.*

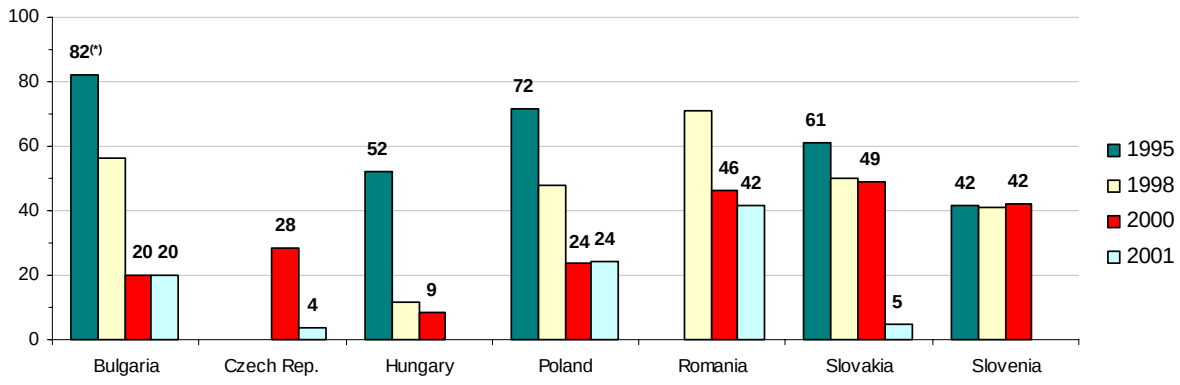
via the issue of vouchers, which were convertible into shares or units of investment funds set up especially for the purpose, and in many cases controlled by the banks themselves. This led to cross-shareholdings between banks and funds, and to several situations in which banks found themselves acting as both creditors and, through the funds, shareholders of their privatised debtors. Moreover, in the early stages of privatisation, the government sold off only part of the assets, and maintained the controlling shares. Only towards the end of the decade, following the banking crisis of 1997-98, was control of the major banks handed over to strategic foreign investors, and the privatisation process was essentially completed with the latest sell-off in 2001.

The pattern was similar in Slovakia, which abandoned the first voucher programme introduced during the Czechoslovakian era in favour of direct sell-offs. However, the government did not draw up an actual restructuring, recapitalisation and privatisation programme for the three big state banks until 1999. These were finally sold to strategic foreign investors in 2001. State ownership of the banks thus fell from 50% of the total sector assets in 1997-2000 to a modest 5% at the end of 2001.

Bulgaria privatised its biggest banks in 1999 and 2000 by selling them directly to foreign banks, in compliance with the economic reform programme agreed with the IMF in May 1997[4].

The presence of the state in the banking systems of Romania and Slovenia was reduced only in 2002, with the sale respectively of Banca Comerciala Romana and the majority share of Nova Ljubljanska Banka.

Fig. 1 – THE IMPORTANCE OF MAJORITY STATE-OWNED BANKS(1)



(1) Share of majority state-owned banks in total bank assets.

(*) Data for 1996.

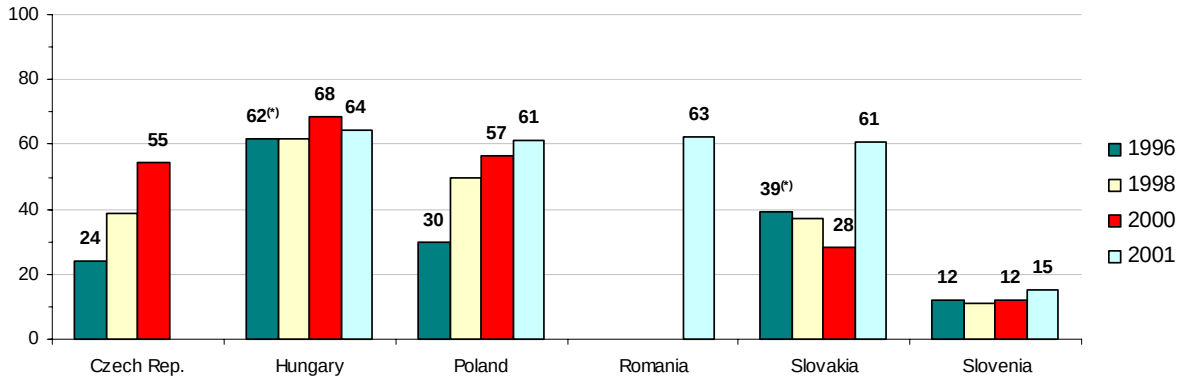
Source: EBRD, National Central Banks, European Commission.

In all the CEEC7, the state has withdrawn from the banking sector with the support of foreign investors, which have provided not only capital but also know-how and management skills. Over the last five years, foreign banks have significantly increased their stakes in domestic banks, most becoming majority shareholders. As mentioned before, some of the countries that had been lagging

4 *Under the IMF plan, six state banks that had survived the crisis of 1995-96 were to be privatised by 1998. However, acknowledging the decline in foreign investors' interest caused by the unfavourable economic condition , the IMF subsequently extended the deadline.*

behind in the privatisation process rapidly completed the sale of their banks to foreign investors in 2001: in the Czech Republic and Slovakia, for example, by the end of 2001 foreign investors controlled 90% and 80% respectively of banking assets. Note that in Slovakia the reduction in the share of equity held by foreign investors in 1999-2000 was due to a huge recapitalisation by the government of the state-owned banks, which were then privatised in 2001 (see figure 2). In Slovenia, the opening-up of the market to foreign investors began only recently[5]. In Poland, the government has been rather reluctant to give up control of the country's banks to foreign shareholders, which initially entered the market by setting up local affiliates and purchasing minority shares. The importance of foreign investors is therefore not evident from data on market share, which is calculated on the basis of controlling stakes. Following the privatisation of Bank Pekao in 1999, foreign control of Polish banks stood at just under 50% of banking assets, almost three times the 1998 value. The figure rose further to over 70% in 2000 and 2001.

Fig. 2 – THE ROLE OF FOREIGN INVESTORS[(1)]



(1) Foreign investors' share of bank equity (%).

(2) Data for 1997.

Source: National Central Banks.

The sell-off of the CEEC7 state-owned banks has offered foreign institutions-European banks especially-new opportunities to expand and diversify their external growth strategies. In addition to German and Austrian banks, which have traditionally played a role in the banking sectors of central and eastern Europe because of their geographical proximity and close trade links, Belgian and Italian banks were the most actively involved in the privatisations that took place in 1997-2000 (De Felice and Revoltella, 2003).

The involvement of foreign banks has been a key factor in the success of privatisation in the CEEC7, owing partly to the competitive advantages they often bring[6]: foreign banks are supposed to be generally more efficient, with better managerial expertise and more up-to-date technology. They are therefore in a good position to improve the quality and range of the financial products and

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5 *In April 2001 Société Générale bought 96% of SKB, Slovenia's biggest private bank, and the country's third largest by assets. In February 2002 SanPaolo IMI launched a takeover bid for Banca Koper, the fourth-largest bank, and thus gained a controlling share of 62.1%.*

6 *See Claessens et al (2001), Dages et al. (2000) and Hawkins and Mihaljek (2001).*

services offered; they introduce modern management techniques; they enable local businesses to gain easier access to the international capital markets; and they inject financial resources. All this has a positive effect on economic growth and the development of banking markets.

3. Main characteristics of the CEEC7 banking sectors

3.1 - Banking size and market concentration

Restructuring and privatisation have brought about significant changes in the structure of the CEEC7 banking sectors, leading to the exit of non-profitable banks, the entry of new operators and the start of a concentration process.

While discussing the structure of the CEEC7 banking markets, it should first be noted that in these countries a leading role is played by commercial banks, which carry out the whole range of banking activities. In some countries, alongside these "universal" banks is a smaller number of institutions which continue to operate in their traditional sectors of expertise such as savings, exports or financial support to the farming sector. Moreover, many co-operative banks remain, although these are highly fragmented and have only a small market share[7]. Given their low volumes and a lack of data on this segment, the analysis that follows refers only to commercial banks.

Restructuring and concentration have caused an overall reduction in the number of banks, and an increase in their size. In 2000-01, market concentration was also partly due to M&A activity involving the banks' foreign parent companies.

The Czech Republic has been the most affected by market rationalisation, especially since the banking crisis of 1997-98, when many banks had their licences revoked. In the last five years, the number of commercial banks has fallen by over a quarter, as has the number of workers in the sector, while the number of branches has dropped by half.

This trend towards consolidation is confirmed by the increase in the size of banks, particularly evident in Poland, where the average assets of commercial banks have almost trebled in the last five years, owing to both a decline in the number of operators and a marked increase in balance sheet assets. This notwithstanding, CEEC7 banks are still generally small in comparison with their western European counterparts, although there are wide differences between countries: larger banks are generally found in the Czech Republic and Poland, while Bulgarian and Romanian banks are mostly very small[8].

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7 *Even in aggregate terms they are very small, accounting for example for 6% of banking assets in Hungary and only 4.5% in Poland, which has around 640 co-operative banks.*

8 *Bulgaria's biggest bank, Bulbank, had assets of EUR 1.31 billion in 2000, less than a tenth of those of the biggest banks of Poland and the Czech Republic. Since 1997 the IMF has been warning that Bulgaria has too many banks for the size of the economy and the amount of assets in its banking sector (IMF,* Country report*, 1997).*

Tab. 1 – NUMBER AND AVERAGE SIZE OF COMMERCIAL BANKS

	Number of commercial banks				Average size (Total banking assets / n° banks) Euro mil			
	1996	1998	2000	2001	1996	1998	2000	2001
Bulgaria	42	34	35	35	n.a.	124(1)	143	179
Czech Rep.	53	45	40	38	1.120	1.541	1.942	2.291
Hungary	n.a.	37	34	33	n.a.	670	893	1.257
Poland (2)	81	83	73	69	645	899	1.460	1.890
Romania	40	45	41	41	265	257	235	302
Slovak Rep.	29	26	23	21	697(3)	712	838	1.037
Slovenia	29	24	25	25	336	519	598	638

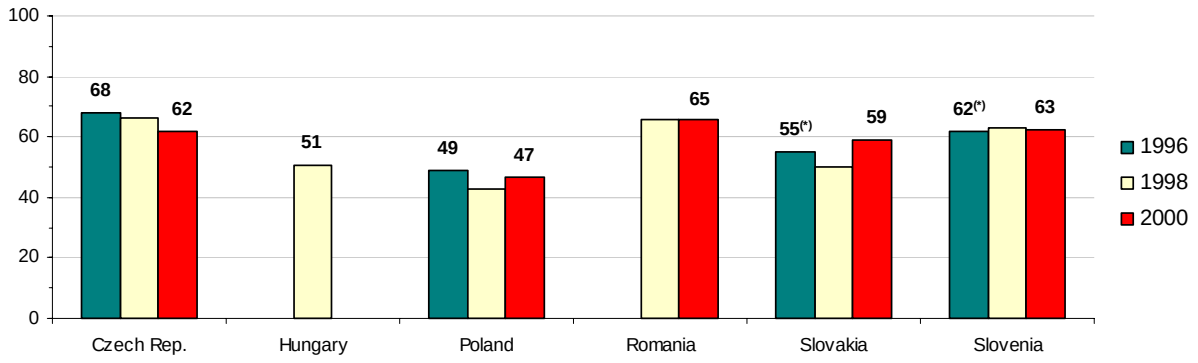
(1) Data for the year 1999. (2) Data are referred to reporting banks. (3) Data for 1997.
Source: National Central Banks.

Concentration in the CEEC7 banking markets is high, and in some cases greater than the EU average, with the biggest four or five institutions controlling 60% or more of sector assets (EU average in 1999: 57%). In general, concentration is particularly marked in deposits, while the loans market is rather more fragmented, owing partly to the traditional segmentation between the retail market, dominated by domestic banks, and the corporate market, where foreign institutions have gained a greater foothold.

The degree of market concentration observed is to some extent due to the relatively small size of the countries themselves. Even within the CEEC7 group, the smaller countries show a greater level of consolidation. The only exception is Romania, which has the highest concentration in the region (the five biggest banks hold 65% of the sector's balance sheet assets) despite being the second-largest country by population. Market consolidation also has historical roots, given the monopolistic structure of the banking market during the Communist era. Partly for this reason, in some countries the concentration trend has developed unevenly, with the percentage dropping during the creation of the two-tier banking system and the liberalisation of the market, and then rising again in recent years. Going against the trend here is the Czech Republic, where the large banks still dominate the market, although overall they are gradually losing market share[9] to medium-sized institutions and the foreign bank branches. Given delays in privatising the large banks, the concentration process (as reflected in a reduction in the number of banks and an increase in their average size) has involved mainly the smaller banks.

[9] *This may be partly because of large-scale operations to clean balance sheets of bad and doubtful loans (see section 4).*

Fig. 3 – BANKING SECTOR CONCENTRATION(1)



(1) Percentage shares of top five banks in total banking assets. For Czech Republic data are referred to the top four banks.
(*) Data for 1997.
Source: National Central Banks; Wagner and Iakova (2001) for Hungary; Bankscope for Slovakia.

In future, the expected increase in competition, together with a decline in profit margins, may speed up the concentration of the CEEC7 banking markets via mergers and acquisitions, signs of which can already be seen in the most highly-developed systems in the region[10]. Mergers between the foreign parent companies of local banks are also an important factor in the concentration process.

3.2 - Banking intermediation

The level of development of banking intermediation is one of the most interesting aspects to examine in a comparative analysis. Although the banking system is *de facto* the only channel for capital flows[11], traditional banking in the CEEC7 is not as developed as it is in the EU, given their only recent transition from planned to market economies. The inefficient economic systems inherited from the Communist era, together with subsequent financial and currency instability, leading to periodic bank runs and bankruptcies, have also contributed to delay the development of these countries' financial markets.

Most importantly, the transitional economies inherited a system in which none of their financial institutions had a market-based approach. Many banks were created from scratch through the spin-off of commercial banking assets managed by the only state bank, or via the awarding of new licences. Only in recent years have the foundations been laid to enable institutional investors such as pension and mutual funds to spring up and develop.

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10 See for example the merger in July 2001 between KeH and ABN AMRO Magyar Bank, Hungary's third- and fifth-largest banks respectively, and the acquisition by Hungary's biggest bank, OTP, of the Czech IRB–Investment and Development Bank in December 2001 and the Slovak IRB in April 2002.

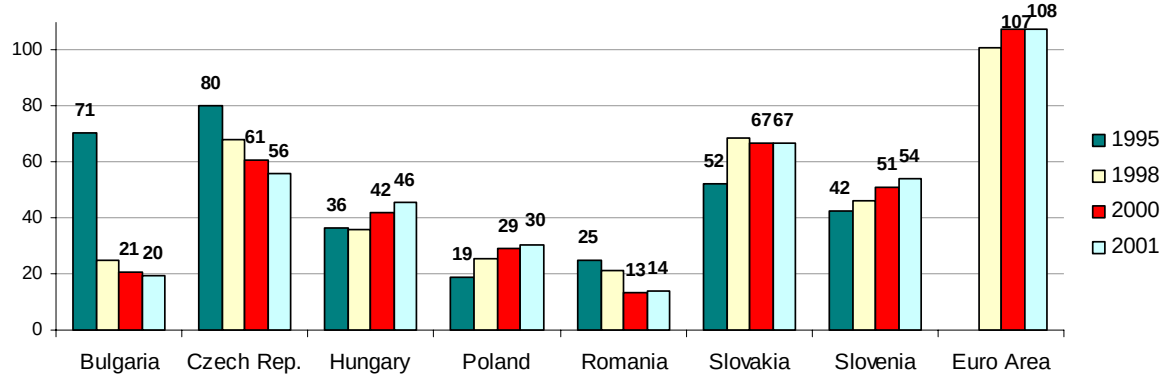
11 In 1999-2000, the amount of capital raised via private corporate share issues as a percentage of total fixed investment increased by 1.3 percentage points compared with 1997-98 in Poland, and by 0.9% in the Czech Republic, while it remained unchanged in Hungary, Slovakia and Slovenia. Again in 1999-2000, bank loans as a percentage of total fixed investment went up by 11.4, 18.9 and 13.6 percentage points respectively in Poland, Hungary and Slovenia, whereas it fell by 8.6 points in the Czech Republic and by 2.5 points in Slovakia. Source: OeNB, Focus on Transition (2001).

Moreover, demand for financial products and services was low, and came mainly from big companies, which even today still represent the main market for both domestic and foreign banks. Except in more developed markets, like those of Poland and Slovenian, many banking services have still not reached most SMEs and households: in 2000 loans to households stood at only around 10% of total bank loans in the Czech Republic, Hungary and Slovakia.

Finally, the former Communist economies also lacked the civil and financial regulatory framework necessary for the development of financial institutions.

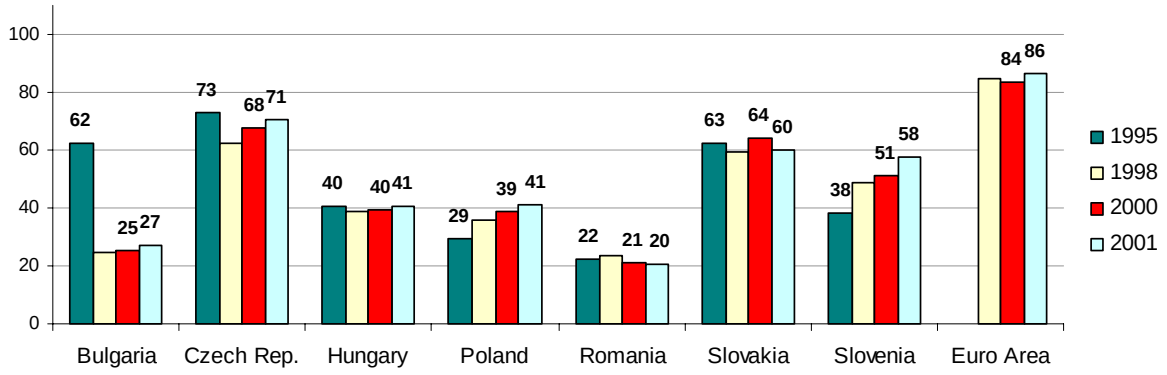
Privatisation and the prospect of EU membership have enabled the CEEC7 to lay the foundations for the creation of solid, market-based banking systems. However, although all the countries have seen high real economic growth rates in recent years, some have experienced a significant decline in banking activity, especially loans, due mainly to macroeconomic factors. The following graphs show how the CEEC7 banking intermediation, as measured by the ratio of loans to GDP and deposits to GDP, has developed between 1995 and 2001.

Fig. 4 – BANKING INTERMEDIATION: LOANS / GDP (%)



Source: EIU, IMF (International Financial Statistics), NBP, Eurostat, ECB.

Fig. 5 – BANKING INTERMEDIATION: DEPOSITS / GDP (%)



Source: EIU, IMF (International Financial Statistics), NBP, Eurostat, ECB.

The marked fall in the loans/GDP ratio in the Czech Republic, for example, was due to the recession of 1997-99, which depressed banking activity, to the clean-up of loan portfolios by transferring bad and doubtful loans over to the state-owned “bad bank”, and to the introduction of more stringent risk assessment systems.

In Bulgaria too the low amount of activity in 1997-2000 was caused by the severe economic and financial crisis of 1996-97. Numerous cases of default resulting from lending policies not based on careful assessments of credit merit, led to bank runs and banks bankruptcies, and seriously undermined savers' confidence in the financial system. The country's banking sector may therefore be boosted by an increase in confidence which could follow the passing of a new deposit insurance law and the expected reform of the law on bankruptcy, which at present does not give creditors the power to enforce guarantees provided by borrowers.

In Slovakia, the ratio of loans to GDP rose in 1995-97, but declined in the next two years, reflecting a sharp drop in loans to the private sector since 1999.

The fall in lending activity in Romania continued in 2001 owing to the fallout from the recession of 1997-99, and more importantly, to companies' high risk profile, which has led the banks to invest funds into money market instruments.

By contrast, banking activity in Hungary, Poland and Slovenia has grown significantly, and is expected to expand further. Growth in the loans/GDP ratio has been due to diversification into new market segments, especially SMEs and households, and to an improvement in the quality of financial products and services offered to large companies. However, these companies still tend to rely on self-financing and internal funds from their parent companies (many of which are multinationals), which could prevent further development of banking intermediation.

On the deposits side, the decline in market interest rates between 1995 and 2001 has reduced the appeal of government bonds, and has focused investors' attention on alternative forms of investment, especially bank deposits. Moreover, the CEEC7 markets have achieved a good level of stability, which has increased savers' confidence in their financial institutions.

4. Credit quality and capital ratios

4.1 - Credit quality

In the last ten years, CEEC7 governments have repeatedly intervened to support their banking industries, by injecting financial resources and cleaning balance sheets. Most of these operations took place in 1991-96, but in Romania, Slovakia and the Czech Republic, they continued (and in greater quantity) in the years that followed.

The various estimates on the impact these operations have had on the public accounts show that the average total cost has been high, and particularly so for some of the CEEC7[12].

The high risk profile of assets in all the CEEC7 in the early 1990s was mainly a legacy from the period of planned economies: commercial banks formed in the first transition phase were heavily exposed to often insolvent state companies.

[12] *In the Czech Republic and Slovakia costs were higher, as much because of the greater contribution traditionally made by the banking sectors to their economies, as because of the delays in the restructuring process. In the Czech Republic, the total cost, including expected costs arising from the state guarantee on the loans of privatised banks, is estimated at 21% of GDP (IMF Country Report 01/113). In Slovakia, the overall cost of restructuring the three main publicly-owned banks in 1999-2000 came to 14% of GDP—12% for cleaning balance sheets of bad assets and 2% for recapitalisation (European Commission, 2002).*

The first interventions more often than not proved unsuccessful: the banks were recapitalised but not restructured, and crisis-hit institutions which did not pose any systemic risk were left free to operate. In some cases, the economic downturn at the beginning of the decade, shortcomings in governance and supervisory systems, as well as the implicit guarantee that the state would intervene, produced a vicious circle of bad asset creation followed by further recapitalisations.

To overcome this emergency and support the economy, the CEEC7 acted more firmly in the years that followed, introducing different measures at different times, which met with varying degrees of success. Countries that immediately introduced structural measures encouraging banks to adopt cautious lending policies attained the best results. This was the case in Poland in 1993-96, where the government intervened with "credible" one-off recapitalisations, and left bad loans on the banks' balance sheets. Consequently, the banks not only gained substantial experience in managing doubtful loans, but also achieved relatively high loan recovery rates. Hungary's solution was equally effective: after repeated swaps of doubtful loans for government bonds met with little success in the early 1990s, the government then took a combined approach, privatising banks and at the same time spreading bad loans among the state debt recovery agency and the banks themselves, which then had to engage directly in workout activities.

In contrast, solutions which focused solely on setting up a "bad bank" - as was the case in the Czech Republic until 1998 - proved unsatisfactory, since they did not provide the banks with enough incentives to change the way they operated and restructure their institutions. The bad banks' activities were also often limited by the lack of adequate powers and a clear mandate.

Privatisations, however, proved the real turning point in all the CEEC7. New core shareholders, cleaned up the banks' balance sheets through one-off write-downs.

Leaving aside the methods, timing and costs of restructuring, the fact that most banks in the CEEC7 are now privatised signals the end of emergency in credit management. In the future, the biggest threats about asset quality will come from the expansion of credit to new customers with a higher risk profile, such as SMEs and households.

Looking now at recent trends in credit risk levels, it should be noted that the ratios registered in some of the CEEC7 are largely a result of these balance sheet cleaning operations. The countries with the lowest non-performing loans (NPL)[13] ratio, gross of write-downs, are currently Hungary (3.1% in 2000), Bulgaria (4.1% in 2001) and Romania (3.4% in 2001) (see table 2). In recent years, trends in these countries have however been very different: while the ratio has fallen steadily in Hungary, confirming the progress of the banking industry towards stability, it plummeted in Bulgaria and Romania after the crisis hit its peak (1996-97 for Bulgaria and 1998-99 for Romania), when NPLs accounted for around 70% of the total and more than double the banks' capital, threatening system meltdown[14].

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[13] *Non-performing loans include all loans classified under the substandard, doubtful and loss categories.*

[14] *Following widespread bank runs, the wave of bankruptcies in Bulgaria (17 banks out of 44) and the deep crises affecting the largest Romanian institutions (Banca Agricola and, more notably the country's second-largest bank, Bancorex, which before being taken over by Banca Commerciala Romana, had an NPL ratio of 80%), the authorities of the two countries intervened heavily with intense balance-sheet cleaning operations and the transfer of bad loans to state agencies.*

While Slovenia has maintained a largely stable NPL ratio of 9-10% in recent years, the trend in Poland has moved in the opposite direction. The ratio stood at 31% in 1993, then fell to 10.5% by until 1997, before rising again to 18.3% in 2001. The reasons for this deterioration (in addition to the fact that, unlike in other countries in the region, the Polish government has not intervened to clean up banks' balance sheets) include the economic downturn following the Russian crisis, rising interest rates, the banks' entry into customer segments with a higher risk profile in response to heightened competition, and the tighter classifications of loans imposed by regulations since 1999.

In December 2001, the Czech Republic and Slovakia had NPL ratios of 13.8% and 13.1% respectively (excluding bad banks). In this case, the fall from the high levels of the 1990s followed the transfer of doubtful loans in preparation for privatisations in 2000-2001.

Tab. 2 – CREDIT QUALITY AND CAPITALISATION

		NPL / Total loans (gross, in %)				Capital ratio (%)			
		1995	1998	2000	2001	1996	1998	2000	2001
Bulgaria		74.0	9.8	5.4	4.1	n.a.	n.a.	35.6	31.3
Czech Rep.(1)		23.5(2)	21.1	19.8	13.8	10.3	12.0	14.9	15.5
Hungary		12.1	6.8	3.1	3.1	n.a.	16.5	15.2	14,2
Poland		20.9	10.9	15.5	18.3	12.3	11.7	12.9	15.0
Romania		56.3	71.7	5.2	3.4	n.a.	10.3	23.8	26.9
Slovak Rep.		41.3	37.0	21.6	21.2	7.7	8.7	2.4	n.a.
	(3)	n.a.	n.a.	15.3	13.1	n.a.	n.a.	12.5	19.6
Slovenia		9.3	9.5	8.5	9.2(4)	19.7	16.0	13.5	13.5(5)

(1) Excluding Konsolidacni Banka (bad bank) and banks under conservatorship; (2) data for 1996; (3) excluding Konsolidacna Banka (bad bank); (4) changes in the NPL ratio compared with previous year are due to the change of loan categories included in the non-performing loans; (5) data at June 2001.
Source: National Central Banks, HFSA, EBRD, European Commission; data are referred to commercial banks only.

5. Capitalisation

An analysis of capital ratios also provides some important evidence. CEEC7 capital ratios far exceed the minimum laid down by national legislation: that is 12% for Bulgaria and Romania and 8% for the other countries. Overall, these ratios should be interpreted positively, because they show that stability has returned to the banking systems, and, more importantly, because they offer a cushion against persistent banking risks in these countries. However, the fact that the ratios are on average around double (or more) those required by regulation confirms, indirectly, that the banks have adopted risk-averse policies, with caution at the forefront of their lending strategies, and have sought alternative safe investments, typically interbank loans and government bonds. It is however likely that capital ratios will fall progressively in the medium term to levels more typical of advanced banking systems[15]: with the adoption of more stringent EU standards, the greater role of foreign investors in bank governance and heightened competition (which will narrow margins), banks will adopt both more advanced capital management techniques - which should generally limit excess capital - and more aggressive lending policies coupled with more sophisticated risk management systems.

[15] *At the end of 2001, the average capital ratio for banks in the eurozone stood at 12.04% (ECB, 2003, EU Banking sector stability).*

Countries with the highest capital ratios at the end of 2001 were typically those which had experienced particularly intense crises in the previous five years, and had seen the weaker institutions forced out or taken over.

Bulgaria and Romania are examples in this respect. Bulgaria's capital ratio stands at 31.3%, the highest among the CEEC7 despite a significant decline in the last two years - it stood at 35.6% in 2000 and 41.3% in 1999. The Romanian banking sector has seen an altogether different trend: at the end of 2001, its average capital ratio was 26.9%, almost triple that of 1998. This was due to both asset cleaning and the compulsory adjustment for inflation of capital levels[16]. In each country, the high ratio is the result not only of particularly conservative lending policies, but also of the structure of deposits, which mainly comprise short-term deposits denominated in foreign currencies; this favours investment in low-risk and liquid assets.

The Czech Republic and Slovakia seem to have made significant progress. In the Czech Republic, the ratio has risen steadily in recent years, to reach 15.5% in 2001, while in Slovakia, the ratio rose dramatically in the space of a year, from 12.5% in 2000 to 19.6% at the end of 2001, following the completion of the restructuring process through the transfer of NPLs to the bad banks. Poland saw a relatively stable trend (around 11-13% but rising to 15% at the end of 2001), while ratios fell in Hungary (15.2% in September 2001) and Slovenia (13.5% in June 2001).

6. Comparative performances between the CEEC7 banking industries

6.1 - Profit margins and revenues mix

The banking industries in the CEEC7 have traditionally registered good interest spreads, measured as the difference between lending and deposits rates. Several economic, operational and supply-side factors contribute to this, two of the most important being high market interest rates and customer risk profiles. Spreads have also been affected by low competition, inefficient management and the cost of bad loans (especially given ineffective loan recovery procedures).

The gradual opening-up of the market to competition and falling interest rates (due to EU convergence) have progressively narrowed the spreads between bank rates. This trend is common to all the countries over the medium term, with the exception of Romania, whose interest rates remain structurally high. Bulgaria's case also goes slightly against the trend: in 1998, bank rates plummeted and spreads narrowed dramatically from the very high levels of previous years[17]. More recently, in 2001, lending rates in the Czech Republic and Poland fell by less than deposits rates, thereby widening spreads.

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[16] *In 2000, the minimum capital required rose to ROL 100bn, then to ROL 150bn from 31/5/2001 and ROL 250bn from 31/5/2002.*

[17] *The trend in Bulgarian bank rates in 1996-98 reflects that of the discount rate, which rose sharply in 1996 in order to curb the excess liquidity on the market that followed the recapitalisation of the state banks. The introduction of the currency board in July 1997 restored equilibrium to the exchange rate and gradually stabilised the economy, contributing to the drop in the discount rate, which fell from 180% in November 1996 to 6.45% by the end of 1997. The excessive availability of funds in the banking sector (given the lack of lending opportunities) led to very low deposit rates, which were actually negative in real terms in the second half of 1997.*

The comparison between the countries confirms that their banking sectors are at different stages of development (although any analysis comparing spreads[18] should be treated with caution). Hungary has the lowest interest spread on traditional banking activities - lower even than the eurozone average. This shows the positive and lasting results Hungarian banks have achieved in terms of the quality of their loans portfolios. In contrast, Romania and Bulgaria have the widest spreads, partly due to delays in restructuring their banking industries and recent economic crises.

The narrow spreads registered by some of the CEEC7 in the last few years suggest that pricing policies have not effectively incorporated lending risks. This is particularly clear in countries with high levels of NPLs, but seems to be generally true for the whole region, where solutions for corporate crises have proved ineffective and collateral recovery rates are low (European Commission, 2002).

Tab. 3 – LENDING RATES AND SPREADS(1)

	Lending rates (%)				Spreads (%)			
	1995	1998	2000	2001	1995	1998	2000	2001
Bulgaria	59.0	13.3	11.5	11.1	24.0	10.3	8.4	8.1
Czech Rep.	12.8	12.9	7.2	7.0	5.8	4.8	3.8	4.1
Hungary	32.6	19.3	12.6	12.1	6.5	3.1	3.0	2.8
Poland	33.5	24.5	20.0	18.3	6.7	6.3	5.8	6.5
Romania	48.6	56.9	53.5	45.1	12.1	18.6	20.8	18.7
Slovakia	16.9	21.2	14.9	11.2	7.8	4.9	6.4	4.8
Slovenia	23.4	16.1	15.8	15.1	8.0	5.6	5.7	5.2
Euro Area	8.9(2)	6.7	6.6	6.8	4.8(2)	3.5	3.2	3.3

(1) Annual average data. Rates on credits and deposits in domestic currency.
Bulgaria: rate on loans with maturity of up to one year; rate on one-month deposits.
Czech Rep.: rates on credits and deposits over all maturity.
Hungary: rates on loans and deposits with maturity of less than one year to non financial enterprises.
Poland: rate on corporate loans with 1 year original maturity; rate on personal deposits with 1 year original maturity.
Romania: rates on credits and deposits over all maturity.
Slovakia: rate on short term loans to the private corporate sector and rate on up to 1 year deposits to the private sector.
Slovenia: rate on short term loans and rate on 31 to 90 days deposits.
Euro Area: rate for loans to enterprises up to 1 year; rate for deposits with an agreed maturity up to 1 year.
(2) Data referred to the year 1996.
Source: IMF-IFS, National Central Banks, ECB.

Narrowing spreads, inevitable in the convergence with western European markets, are one of the main threats to the profitability of CEEC7 banks, given the high contribution of interest income to their financial results.

The structure of banks' revenues in the CEEC7 reflects the importance of this traditional activity, although the gradual modernisation of the banking sectors and the innovative products and services introduced by foreign operators are gradually diversifying sources of revenue.

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18 Comparisons between bank rates in different countries may be influenced by inconsistency between the data. Differences may concern the maturities and types of operations, the reference currency and customer segments. Generally, the data used for comparison here relate to short-term interest rates (less than one year), or, in the case of the Czech Republic and Romania, for example, to an average of all maturities, as explained in the notes to table 6. Generally, the rates used relate to operations in local currency; lending rates refer to company loans, and borrowing rates to customer deposits.

Over the medium term, interest income is likely to make less of a contribution, owing to lower rates, narrowing spreads and, in some cases, more cautious lending strategies. These factors will push up the contribution of non-interest income.

Although still modest, the contribution of net commissions to total income has gradually risen in recent years. This is because banks have not only successfully diversified into services but also have changed pricing policies for traditional products. We refer, in particular, to commissions from current account management and loans.

The Polish banking sector provides a good example of some of these trends. In the last five years, the contribution of interest income to total income has fallen by almost 20 percentage points. This drop can be clearly seen in 2001 results, and is partly because banks have become more cautious in extending credit. The trend has not however been accompanied by a similar increase in commissions, which in 2001 made up a fifth of total income, little more than the figure for 1997-98. In 2001 the limited increase in commissions was due to lower growth in fees from lending activities.

Net commissions have also risen in the other countries, particularly the Czech Republic. Income from financial operations has however proved very variable in this country: it fell significantly in 1998-2000, causing the contribution of interest income to total revenues to rise. Results for 2001 show an inversion of the trend, with interest income lowering to its early 1990s levels of just under 60% of total income.

Tab. 4 – INCOME DIVERSIFICATION

	Net interest income / Total income* (%)				Net commissions / Total income (%)			
	1996	1998	2000	2001	1996	1998	2000	2001
Czech Rep.	57.5	60.7	66.6	58.3	15.7	13.7	21.5	22.7
Hungary	75.3(1)	79.5	71.5	82.1	15.2(1)	17.7	17.1	22.6
Poland	72.5(1)	71.1	61.6	53.7	17.0(1)	16.8	19.9	20.8
Slovenia	78.4	71.0	70.7	69.5(2)	22.4	23.8	21.7	23.2(2)

** Total income = net interest income + non-interest income.*
(1) Data for the year 1997; (2) Data referred to H1 2001.
Source: National Central Banks; for Hungary NBH and HFSA (for 2001).

6.2 - Efficiency and profitability

The instability of the CEEC7 banking sectors is reflected by their profit performances, which over the last five years have been mixed.

On the efficiency side, cost/income ratios do not appear to be particularly burdensome: in recent years, the ratio for the CEEC7 was on average between 57% and 66%. This figure is however mainly a result of good earnings and still only partly reflects the investment—chiefly in technology—in company restructuring. As in the more advanced banking sectors of other countries, banks, particularly private institutions and those controlled by foreign shareholders, are increasingly aiming to improve productivity levels and save on general costs, in response to falling margins and tougher competition.

Tab. 5 – EFFICIENCY AND PROFITABILITY

		Cost / Income (%)				Pre-tax ROA(*) (%)			
		1996	1998	2000	2001	1996	1998	2000	2001
Bulgaria		n.a.	64.6(1)	53.8	56.9	n.a.	3.6(1)	4.3	3.5
Czech Rep. (2)		55.0	52.4	65.7	60.9	0.3	-0.2	0.5	0.8
Hungary		59.8(3)	64.2	65.9	72.1	n.a.	-2.2(4)	1.2	1.9
Poland		53.7(3)	61.3	61.8	60.7	3,3	1.4	1.3	1.3
Romania		n.a.	n.a.	n.a.	n.a.	n.a.	-0.1(1)	2.6	n.a.
Slovak Rep.		n.a.	78.6(1)	67.7	65.6	n.a.	-3.7(1)	0.6	1.1
	(5)	n.a.	n.a.	n.a.	n.a.	n.a.	-2.3(1)	1.4	n.a.
Slovenia		60.3	64.8	60.0	66.2(6)	1.1	1.1	1.0	1.1

(*) Pre-tax profit / Total assets; (1) data for the year 1999; (2) excluding Konsolidacni Banka (bad bank); (3) data for the year 1997; (4) computed on average total asset; (5) excluding Konsolidacna Banka (bad bank); (5) Data referred to H1 2001.

Source: National Central Banks, HFSA, European Commission; with exception of Hungary, data are referred to commercial banks only.

For most of the CEEC7, overall profitability (as measured by the ratio between gross profit and total assets[19]) in 2000-2001 contrasts with the results of the second half of the 1990s, showing that the crisis is definitely over, mainly because the cost of bad loans has fallen dramatically. Current pre-tax ROA is on average high, and in some cases even exceeds those of western European banks, in spite of higher inflation rates and risk premiums.

In some of the CEEC7, moreover, foreign banks and restructured institutions enjoy a clear advantage in terms of profitability and efficiency (Wagner and Iakova, 2001 and European Commission, 2002).

However, there appears to be no clear relationship between profitability and the degree of banking sector development. Bulgaria and Romania have the most profitable sectors, with pre-tax ROA of 3.5% (2001) and 2.6% (2000) respectively. These high nominal yields are chiefly due to wide spreads (see previous section), which reflect not only the higher credit risk but also inefficiency resulting from the lack of competition. Other factors contributing to the performance of the two countries include their thriving government bond markets, which are still fairly profitable, and lower provision charges following one-off interventions by the governments to clean balance sheets.

Hungary and Poland, which have the most advanced banking systems of the CEEC7, register lower pre-tax ROA of 1.2% (2000) and 1.3% (2001) respectively. In Hungary, the figure has risen since the Russian crisis (1998-99) while in Poland, which has reported the longest series of positive results (since the early 1990s), profitability has felt the first effects of tougher competition and a rise in write-downs and provisions, caused by the recent deterioration in credit quality.

In the Czech Republic, Slovakia and Slovenia, pre-tax ROA comes in lower, at around 1%. While the figure has remained steady in Slovenia, owing probably as much to the oligopolistic nature of the market as to the positive and stable economic picture in recent years, in the Czech Republic and Slovakia the banks have returned to profit after the crisis of the late 1990s. For both countries, this

[19] *Gross profit is used to prevent tax considerations from distorting comparisons between the countries.*

trend is chiefly due to the transfer of bad assets, which has led to fewer write-downs and the write back of those made in previous years.

Aside from their current performances, interest in the banking sectors of the CEEC7 is based on their medium-term growth prospects. Observers agree that when transition is complete, the positive effects of the restructuring undertaken up to now will be amplified and will increase revenue channels, and that the introduction of more sophisticated management techniques will help align efficiency and productivity with those of the more advanced markets.

7. Growth potential of the CEEC7 banking sectors

This section explores the growth potential of banking intermediation in the CEEC7. As stated in section 3.2 above, the economies of the CEEC7 (and other transition countries) generally exhibit lower levels of economic and financial services development than industrialised countries.

Tab. 6 – FINANCIAL DEVELOPMENT INDICATORS BY GROUP OF COUNTRIES

	TOTAL SAMPLE(1)	OECD	CEEC7	OTHER TRANSITION COUNTRIES	OTHER COUNTRIES
GDP PER CAPITA (US$ - PPP)	8866	24996	10886	4835	5525
DOMESTC CREDIT/GDP (%)	56.6	111	41.2	23.2	51.4
MARKET CAP OF LISTED COMPANIES/GDP (%)	62.3	105	13.4	15.8	51.4
M2/GDP (%)	46.7	62.4	44.8	21.5	48.6
CLAIMS ON PRIVATE SECTOR/GDP (%)	40.9	85.7	28.2	21.5	35.4

(1) The sample includes 207 countries. For the aim of the analysis Czech Republic, Hungary, Poland and Slovak Republic are excluded from the subsample OECD. All CEEC7 are excluded from the subsample OTHER TRANSITION COUNTRIES. Data are for the year 2000.
Source: World Bank (World Bank Development Indicators Database - 2002).

In 2000, the average ratio of total domestic credit to GDP in OECD countries was 111%, compared to just 41.2% for the CEEC7 and 23.2% for other transition countries. A much wider gap there exists in the level of development of capital markets: in the same year, the market capitalisation of listed companies represented 105% of GDP in OECD countries, but only 13.4% in the CEEC7. Meanwhile the ratio of M2 to GDP - which proxies the banking sector's ability to mobilise saving - was 44.8% for the CEEC7, versus 62.4% in OECD countries.

The level of banking services provided by commercial banks and other deposit-taking institutions to the private sector is measured by claims on private sector as a percentage of GDP[20]. This indicator also shows slower development in the CEEC7, with other transition countries still further behind.

The descriptive statistics are backed up by more detailed empirical analysis aimed at ascertaining whether the banking sectors of CEEC7 countries are fully

[20] *Using the ratio of claims on private sector provided only by commercial banks and other lending institutions and GDP does not distort the measurement of the level of banking development in the CEEC7, as the level of banking activity carried out by other financial institutions is negligible. See OeNB, Focus on transition, I/2001, page 54.*

developed in line with the process of economic growth, or whether some latent growth potential remains. For some time now both the theoretical and empirical literature on economic development has highlighted a positive and significant relationship between a country's banking sector development and its economic growth[21]. Consistently, the results of our regression analysis suggest that the level of banking development of transition countries is unusually low in relation to their per capita wealth.

Fig. 6 – BANKING INTERMEDIATION AND ECONOMIC DEVELOPMENT [22]

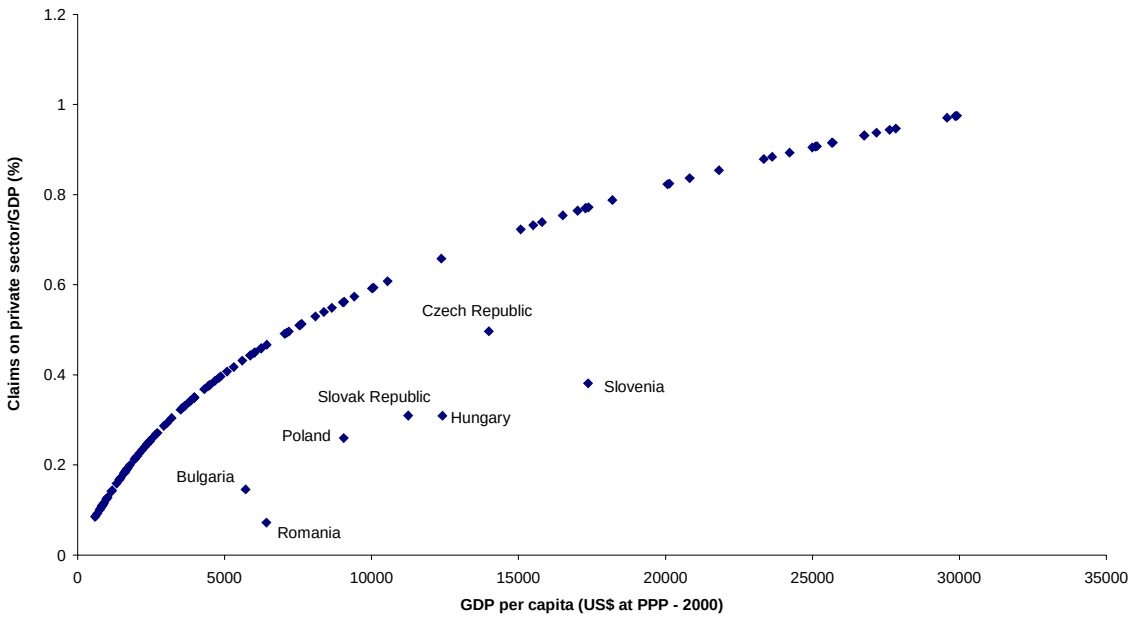

Figure 6 shows the gap in the development of banking intermediation in the CEEC7 and that of the market economies, with the relationship between the level of banking development and per capita GDP represented by the logarithmic curve[23]. Given their levels of GDP, the CEEC7 therefore have less developed banking sectors than would be expected—and thus display attractive growth potential.

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21 *The causal relationship is not unequivocally determined by the theory. Schumpeter (1934), Goldsmith (1969), Rajan and Zingales (1998) and Beck and Levine (2002)- among others-posit a causal relationship between the development of the financial services sector and economic growth, since a more developed financial sector improves the allocation of capital, encourages saving and reduces the cost of accessing external funding. On the other hand, Gertler (1993), and Berthelemy and Varoudakis (1996), highlight the positive effects of economic growth on demand for goods and financial services. Although empirical evidence supports both theories, neither study can be considered definitive, especially as there have been no studies on developing or transition countries. The only conclusion seems to be that of a positive link between the development of financial services and per capita wealth.*

22 *The logarithmic curve is estimated on the subsamples OECD and OTHER COUNTRIES. Though Luxembourg data are included in the database, the graph does exclude it as it is an outlier (GDP_PC = 50,000US$ in 2000).*

23 *See appendix for a description of the methodology used to estimate the correlation shown in the graph.*

Table 7 shows the growth potential for each country, calculated as the difference between the actual value of the indicator of banking sector development and the value estimated according to the relationship[24]:

$$CLAPR / GDP = \alpha_0 + \beta_1 (LNGDP\_PC) + \beta_2 (LNGDP\_PC)^2 + \varepsilon$$

Tab. 7 – Banking intermediation growth potential

	CLAIMS ON PRIVATE SECTOR/GDP		
	Actual value	**Expected value**	**Growth potential**
Bulgaria	14.6%	43.6%	29.0%
Czech Republic	49.7%	69.8%	20.1%
Hungary	30.9%	65.9%	35.0%
Poland	26.0%	56.2%	30.2%
Romania	7.2%	46.6%	39.4%
Slovak Republic	30.9%	62.8%	31.9%
Slovenia	38.1%	77.2%	39.0%

The data indicates high growth potential for all CEEC7 countries. This not only represents a business opportunity for the local banks, but more importantly sets a growth objective that could lay the foundations for sustained economic development in the wider sense. Growth potential is particularly high in Romania and Bulgaria, where delays in the transition to a market economy can also be seen in the development of the banking sector. Considerable expansion opportunities even exist in Poland and Hungary, whose banking sectors are more developed than elsewhere in the CEEC7. This also applies to the Czech Republic and Slovenia, although these countries already had a reasonably well-established banking market.

Banking services are expected to expand significantly in the CEEC7 over the next few years: growth prospects look bright and measures taken to restructure the sector have yet to show their full effects. Liberalisation, privatisation, and in particular, reform of banking laws and amendments to national bankruptcy laws have taken place only recently in some countries, but these are expected to make a significant contribution to growth in loans and deposits. Several recent empirical studies carried out using a sample of market economies support the theory that an appropriate legal system (especially financial regulation and corporate governance rules) is a *sine qua non* for the development of banking and financial markets (La Porta et al., 1998; Beck and Levine, 2002; and Levine, 1998 and 1999).

A key factor in growth is the full reform of the supervisory framework, which takes on greater importance in economies in transition, where market procedures and reputation need time to be consolidated. In recent years all transition countries have implemented major reforms of banking laws to bring them into line with international and EU standards. In some countries, such as Hungary, the process of enshrining EU banking directives in national law has been completed, although in others it has scarcely begun.

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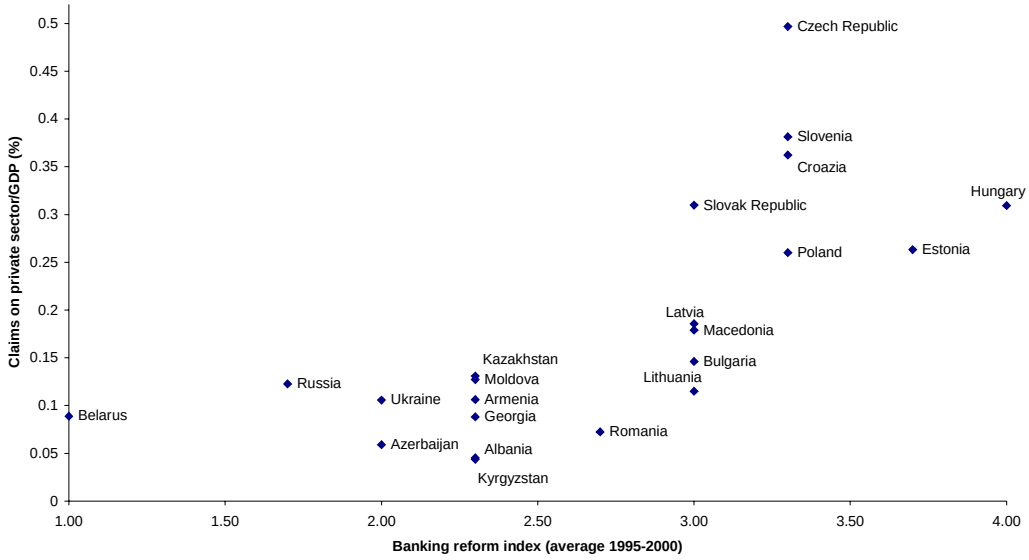
24 *Regression parameters: intercept=1.4937 (T-stat=1.356). LNGDP_PC=-04986 (T-stat=-1.805); LNGDP_PC2=0.4347 (T-stat =2.561); R-sq. = 0.530. P-value = 0.000. The growth potential is the difference between the estimated value and actual value.*

The positive correlation between the degree of banking development and the reform of the banking sector[25] for our sample of transition countries is plotted in the chart below.

Fig. 7 – Banking intermediation and reform of the banking system



Source: World Bank (Development Indicators Database – 2002) and EBRD.

The Caucasian republics have accomplished little in the process of reforming their banking sectors and display a low level of banking development, while some of the countries that have liberalised and privatised their banking sectors, and introduced a more advanced legal framework, such as the Czech Republic, Estonia, Poland, Hungary and Slovenia, now have a far more developed system.

The chart is supported by the results of our OLS regression analysis. The equation tested the relationship between the development of banking activity and banking sector reform, taking into account per capita wealth (see below). The equation is as follows:

$$CLAPR/GDP = \alpha_0 + \beta_1(LNGDP\_PC) + \beta_2(LNGDP\_PC)^2 + \\ + \beta_3(BAREFIN) + \varepsilon$$

The results[26] support the hypothesis that the stage of reform in the banking sector is one of the (statistically significant) determinants of the degree of banking development in transition countries.
In any case, it is true that for financial institutions to operate properly according to market procedures, for the confidence of investors and savers to grow over time,

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25 *This refers to the indicator on banking reform and interest rate liberalisation attributed annually by the EBRD to each country. It measures the progress achieved in liberalisation of interest rates and allocation of credit, privatisation, effective prudential supervision, and above all, the alignment of banking legislation to international regulations. For the purposes of the following analyses it was considered appropriate to replace individual indicators with the average rating for the 1995-2000 period, to take into account the time delay between reforms being approved and implemented. The relationship represented in the graph also exists if the reform indicator for 2000 is used.*

26 *Regression parameters: intercept=7.6298 (T-stat=2.292); LNGDP_PC=--1.8934 (T-stat=2.419); LNGDP_PC^2 = 0.1169 (T-stat=2.537); BAREIN = 0.5334 (T-stat=3.197); R-sq = 0.784; P-value = 0.000.*

and for their rights to be protected, the reforms not only have to be implemented but fully operational, In particular, bringing supervisory regulations in line with international standards is - although insufficient on its own - a necessary prerequisite for the development of a healthy banking sector.[27]

8. Conclusions

The prospect of EU accession, the restructuring and recapitalisation of financial institutions, and the development of supervisory methods and techniques have contributed to the success of privatisation programmes carried out by the CEEC7's banking sectors.

Reform and privatisation have led to a radical restructuring of the banking markets, with a consolidation process reducing the number of banks in operation but increasing their size. We have, however, identified some significant differences within the CEEC7. The banking sectors in Poland and Hungary have been privatised and have reached an advanced stage of development, with their markets displaying stability and a healthy degree of competition, due to the establishment of effective supervisory authorities. Banking privatisation was completed in the Czech Republic and Slovakia in 2001, encouraging the entry of strategic investors. In these countries the banking sectors are highly concentrated and banking activity is historically well-developed. In Bulgaria and Romania significant delays are affecting banking development, and this is reflected in the structures of the respective banking sectors. The privatisation process has still to be completed, and even though the level of concentration is high, a large number of banks are still in existence given the size of the countries. Slovenia is a special case as the Government continues to hold relevant stakes in the country's largest banks.

All of the CEEC7 countries display a low degree of development of banking and financial services if considering their level of economic wealth. An econometrics analysis reveals the size of the gap in banking intermediation between these countries and the market economies, given the level of per capita wealth. The growth potential for banking is high, even in Hungary and Poland, considered the most advanced countries in the region. The banking activities are therefore expected to increase substantially, on the back of the economic growth forecast for the next few years and the attendant expansion of banking services into new market segments (SMEs and households), and following full implementation of the new banking regulations. Empirical studies confirm the theory that the countries which have already undergone liberalisation and privatisation and have adopted more advanced banking laws, also have more developed banking sectors.

A final consideration concerns profitability. Given that this is still largely dependent on traditional banking activities, a crucial factor is the expected reduction in banking spreads, due to falling interest rates and increased competition. However, earnings prospects remain bright, thanks to an expected rise in banking volumes, which could offset the reduction in interest margins. Furthermore, bank P&Ls should benefit from efficiency gains, reductions in provisions for credit risk and, later on, from the diversification of revenues once a wider range of financial services is on offer.

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[27] *Pistor et al (2000) came to a similar conclusion after investigating the impact of the reform of ownership rights and protection of shareholders on companies' use of external financing.*

Appendix: sample and data sources used

Our analysis used data provided on 207 countries by the World Bank. The countries are classified as (1) OECD members, (2) transitional economies (central and eastern European countries, including Russia and the Caucasian republics), (3) the CEEC7 (the sample of countries in this report; a subset of the transitional economies) and (4) other countries. For the purposes of our analysis, the CEEC7 countries that are also OECD members (Czech Republic, Poland, Slovakia and Hungary) are excluded from the OECD sample.

The data were taken from the *World Bank Development Indicators Database 2002* and refer to 2000. This World Bank database in turn draws on the *IMF-International Financial Statistics* database for data on monetary and credit aggregates. The indicator for banking sector reform is taken from the EBRD's Transition Report (2001).

Tab. 8 – Variables and proxies

Variables	Proxies	
Economic development	GDP per capita (US$ at PPP)	GDP_PC LNGDP_PC $(LNGDP\_PC)^2$
Financial development	Domestic credit/GDP Market cap. of listed companies/GDP	
Banking intermediation development	M2/GDP Claims on private sector/GDP	 CLAPR/GDP
Reform of the banking system	Banking reform index	BAREFIN

The progress made in the liberalisation of interest rates and credit allocation, and privatisation and reform of supervisory regulations is recorded by the EBRD, which since 1992 has assigned an annual rating to each country. These ratings score between 1 and 4+ (the latter indicates full compliance of national legislation with international standards, and clarity and transparency in the definition and application of the regulations, good levels of legal enforcement, and a satisfactory degree of competition in the supply of financial services). For further details on the methodology used to build the index please refer to the EBRD's 1998 Transition Report 1998.

Acronyms

BNB	**Bulgarian National Bank**
BS	**Bank of Slovenia**
CNB	**Czech National Bank**
EBRD	**European Bank for Reconstruction and Development**
EIU	**Economist Intelligence Unit**
HFSA	**Hungarian Financial Supervisory Authority**
IIF	**The Institute of International Finance**
NBH	**National Bank of Hungary**
NBP	**National Bank of Poland**
NBR	**National Bank of Romania**
NBS	**National Bank of Slovakia**
OeNB	**Oesterreichische Nationalbank**

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