How Important are Foreign Banks in the Financial Development of European Transition Countries?

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Keywords: **Financial Development, Financial Institutions; Foreign Bank Entry; Transition Economies, Bank Performance.**
JEL code: F36, G15, G20, O16, P34

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Acknowledgements
This research was financed by the European Union as ACE project P98-1082R. Part of this research was done while De Haan was visiting scholar at the Netherlands Bank. We like to thank all participants of this project for their help and their stimulating comments on conferences in Tallinn, Poznan, and Groningen. Moreover, we like to thank representatives of the Central Banks of Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, the Slovak Republic and Slovenia as well as the ATPF of Hungary who provided data. We also like to thank Lusine Lusinyan and two anonymous referees for their useful comments.

Abstract

This paper analyzes the development of the banking sector in European transition countries. We find that, although bank assets increased during the 1990s, credit to the private sector remained relatively low. Foreign-owned banks have become major players in the financial system of these countries. However, foreign bank presence and financial development in general vary considerably among the transition economies. Foreign-owned banks have, in general, higher profitability levels than domestic banks. Furthermore, it appears that foreign and domestic bank performance tend to converge.

Introduction

There is a growing interest in the impact of foreign banking on the financial system and the economic development of emerging and transition countries (Claessens, Demirgűç-Kunt and Huizinga, 2001; Iakova and Wagner 2001; Mathieson and Roldos 2001). The upcoming eastward enlargement of the European Union has only increased this interest. During the past decade, many former communist countries have made substantial progress in the transition from a centrally planned economy to a market based economy. In recent years, progress has been particularly significant in restructuring and consolidating the banking sector. This has mainly been accomplished through the privatization of state-owned banks and the opening-up of the banking sector to foreign ownership.

This paper analyzes the development of the banking sector during the transition process in the Central and Eastern European countries. We particularly focus on the position of foreign-owned banks, as it turns out that they play an important role in the development of the financial system of European transition countries: more than half of the banks in the region are foreign-owned, accounting for two thirds of total bank assets. We have gathered new data about several aspects of the development, structure, conduct and performance of the banking sector in the region. As such, this paper is one of the first to analyze the *complete* region on the basis of an identical methodology for all countries.[1]

Our analysis is based on a number of key indicators, summarized in Appendix 1. We use definitions in line with those proposed by Beck, Demirgűç-Kunt and Levine (1999). We define a bank to be foreign in case more than 50 percent of its shares are owned by foreigners. Of course, banks from outside the country may have a minority share so that focusing on the number of banks owned by foreign banks may underestimate foreign influence. Therefore, we also take in consideration the development of foreign-owned bank assets.

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[1] Up to now, most studies focused on a limited number of countries within the region. For example, Dobosiewicz (1995), Mervart (1996), Sabi (1996), Buch (1997), Steinherr (1997), Bonin, Mizsei, Székely and Wachtel (1998), Bonin and Abel (2000), Galac and Kraft (2000), Hasan and Marton (2000), Scholtens (2000), Storf (2000), Barisitz (2001), Schardax and Reiniger (2001). For a comprehensive overview of the financial sector in transition countries in 2001, see ECB (2002).

A problem in analyzing the transition process is the lack of reliable data. Therefore, we have sought the co-operation of central banks in the region. Several central banks helped us to gather aggregated data required to analyze the development of the banking sector and the role of foreign banks. This information was supplemented with data from the IMF's International Financial Statistics and data from the EBRD. However, for a good understanding of the banking sector in the transition economies, adequate knowledge of the operations of individual banks is essential. Data on individual banks were therefore gathered using the BankScope database.

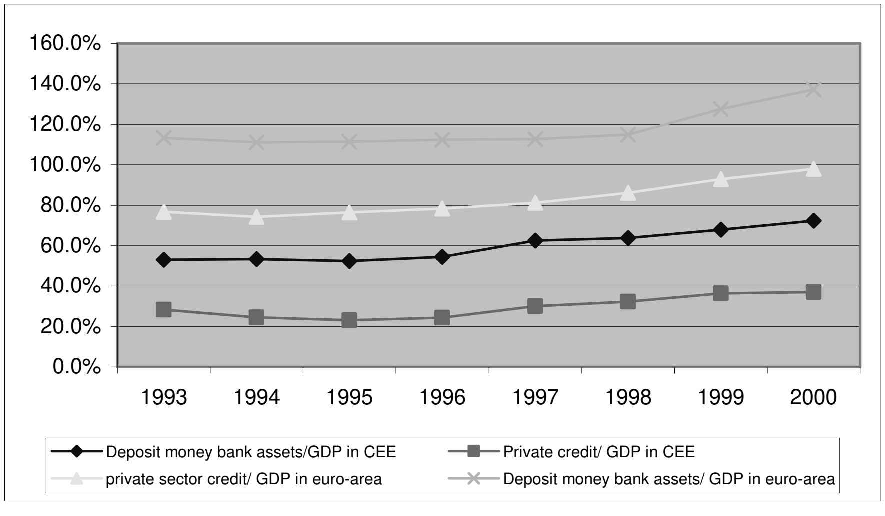
Our main findings are that the speed of financial development has been rather slow in the transition countries. Foreign-owned banks have become major players in the financial system of Central and Eastern-European countries. However, financial development and foreign bank presence vary considerably among the transition economies. Although bank assets increased during the 1990s, credit to the private sector remained relatively low. Foreign-owned banks lend more to the private sector than domestic banks. They have, in general, also higher profitability levels than domestic banks. However, it also appears that the performance of foreign and domestic banks tend to converge.

The structure of the paper is as follows. The following section points out some basic features of the financial system in the transition economies. We focus on the intermediation role of the banking sector in the selected transition economies and make a comparison with the euro area. Section 2 examines the degree of foreign bank penetration in transition economies. Trends in the number of foreign-owned banks and their assets will be discussed. This will give us an idea about the importance of their presence. Section 3 analyzes the background and key characteristics of foreign-owned banks. Section 4 compares the activities of foreign and domestic banks. Section 5 evaluates bank performance in the European transition countries, focusing on profitability and efficiency of domestic and foreign banks. Section 6 concludes.

1. Intermediation

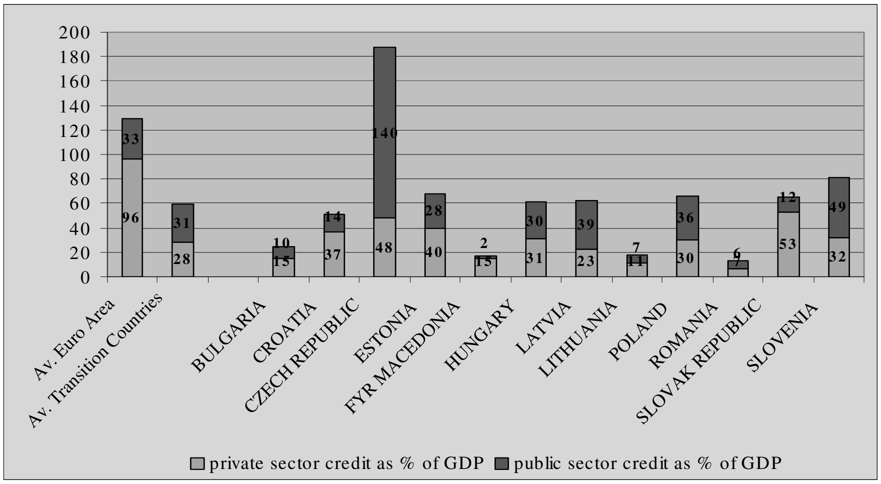
Figure 1 shows the development of the average assets of deposit money banks as a ratio to GDP in Central and Eastern European (CEE) countries and the euro area, while figure 2 presents figures for individual countries in the year 2000. The ratio between banks assets and GDP illustrates the importance of the financial services provided by banks relative to the size of the economy (Beck et al., 1999). In general, the average of deposit money bank assets to GDP in the euro area is at least twice as high as in the transition countries.

Figure 1. Deposit money banks assets and private sector credit in CEE countries and the euro area (% GDP), 1993-2000



Source: Central banks of Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, the Slovak Republic, Slovenia and IMF for euro area (excl. Luxembourg).

Figure 2. Bank claims on the public and the private sector in CEE countries and the euro area (% GDP), 2000



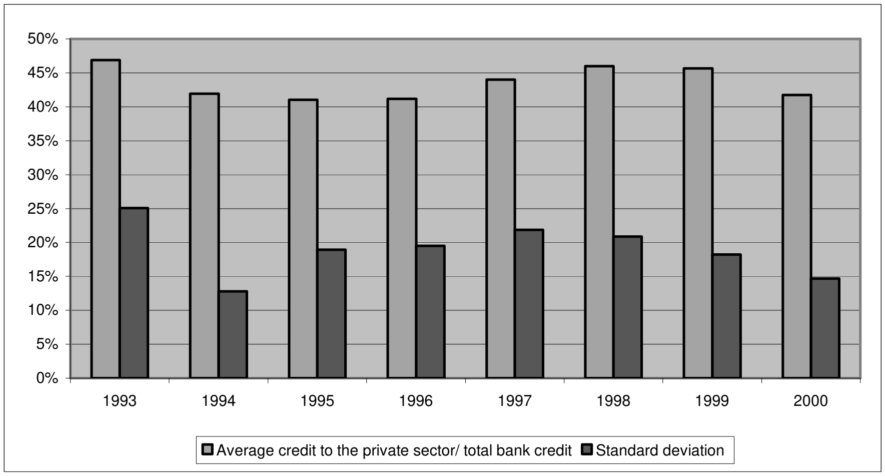
Source: Central Banks and IMF for Bulgaria, Lithuania, Macedonia, Romania and euro area.

The European transition economies show no uniform pattern of financial development. Bank assets in relation to GDP is by far highest in the Czech Republic (see figure 2). This is the only European transition economy with a financial sector size similar to that of the euro area. In Estonia, Hungary, Latvia, Poland, the Slovak Republic and Slovenia bank assets amount to more than 60% of GDP in 2000 and this ratio has been moving upward in the recent past. Croatian banks have assets that amount to about 50% of GDP. Banking sectors are smallest in Bulgaria, Lithuania, Macedonia and Romania. In these countries, this key ratio has even been subject to a downward trend.

Figures 1 and 2 also present the level of bank claims on the private sector as share of GDP. This ratio shows the importance of one of the main functions of financial intermediaries, i.e. channeling funds to investors. Private credit captures the loans to the private non-financial sector (Beck et al., 1999). The difference with total deposit money bank assets mainly consists of claims on the government and on (semi-)public enterprises. Figure 1 shows that credit to the private sector increased in CEE countries but to a lesser extent than total deposit money bank assets. In the euro area, private credit is about three times as high as public credit, whereas in the transition countries private and public credit have about the same size. Still, major differences exist between the various CEE countries with respect to bank lending to the private sector, as figure 2 illustrates. In the Czech Republic, Estonia, and the Slovak Republic the ratio of private sector credit to GDP is 40% or higher. In Croatia, Hungary, Poland and Slovenia the ratio is between 30% and 40%, whereas it is less than 30% in the other transition countries.

Two opposing forces may have influenced extending private credit in the transition economies. First, more developed countries generally have more developed financial markets (see Khan and Senhadji, 2000). So, one would expect that economic development in a transition country will lead to more credit to the private sector. Due to relatively underdeveloped equity markets in transition economies, firms in need of external funds depend on bank credit. Second, due to poor conditions in the banking sector credit to the private sector may, however, stagnate. Banks have started to invest more in liquid securities such as government bonds (De Haas, 2002).

Figure 3. Private sector credit as share of total credit in CEE countries, annual average and standard deviation, 1993-2000

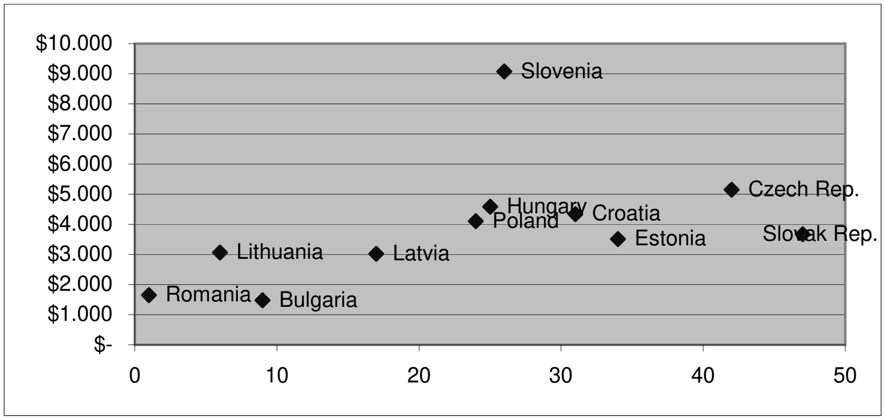


Source: Central banks of Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland and Slovenia.

According to De Haas and Van Lelyveld (2002), the reluctance of banks to grant new loans to the private sector partly results from lengthy legal procedures, especially the inadequate enforcement of creditor rights. Indeed, as follows from figure 3, the average share of credit to the private sector as share of total credit in CEE countries hovers around 40-45% in the period 1993-2000. The standard deviation of this indicator fell from 25% in 1993 to around 15% in 2000, suggesting that the CEE countries have become more similar in this respect.

The literature on finance and economic development (see King and Levine, 1993a,b; Levine, 1997; Khan and Senhadji, 2000; Levine, Loayza and Beck, 2000) suggests that bank activities increases in income. Figure 4 plots the private credit/GDP ratio and per capita income in eleven transition countries for the year 2000. It appears that there is a positive association between credit to the private sector and per capita income in the transition economies. The outlier is Slovenia with a relative high level of per capita income.[2]

Figure 4. Private sector bank credit/GDP and per capita income (USD) in CEE countries, 2000



Source: Central banks for private credit/GDP (IMF for Bulgaria and Romania) and EBRD for per capita income.

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[2] A simple trend regression confirms this observation. We define GDPPC as per capita GDP and PRIVCRG as private credit to GDP. The simple regression result is: PRIVCRG = 16,77 + 0.00329 GDPPC (p-value is 0.15; R^2=0.21).

This brief overview reveals that the transition economies differ substantially with respect to the development of the banking sector. The Czech Republic, Croatia, the Slovak Republic and Slovenia have the most developed banking systems, while Bulgaria, Macedonia, and Romania lag behind. There appears to be a positive association between the level of financial and economic development for most countries in the year 2000. As far as financial development is concerned, there is a great discrepancy between the transition countries and the euro area with respect to the level and composition of financial intermediation.

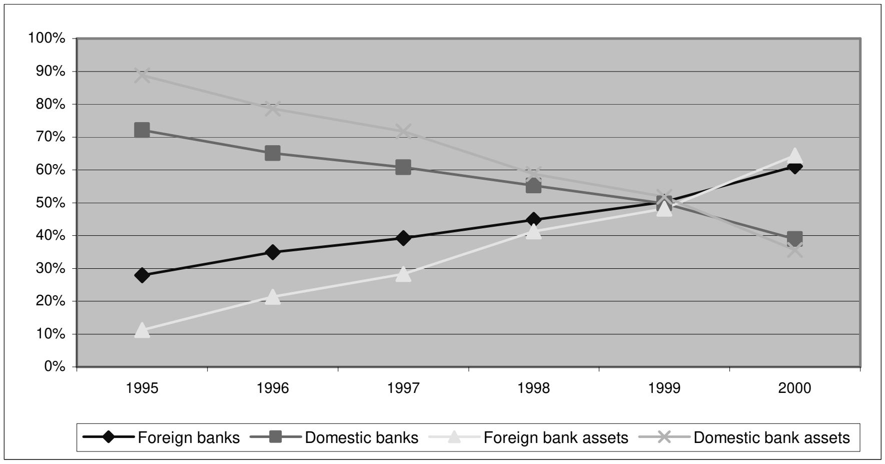
2. Foreign bank presence

The increasing foreign bank presence since the 1990s is one of the most striking developments in the banking system in the transition economies. We find that, on average, foreign-owned banks account for more than half of the total number of banks in 2000 and hold more than two thirds of total bank assets in most transition economies. However, the importance of foreign banks varies a lot among countries. Still, foreign bank presence in all transition countries is considerably higher than in the European Union countries, with the exception of Luxembourg (Claessens et al., 2001; Noyer, 2001).

Figure 5 illustrates the development of the relative number of foreign and domestic banks in CEE countries for the period 1995-2000, while Appendix 2.1 gives the absolute number of foreign banks for the individual countries. In 1995, 113 foreign banks were present in the countries in our sample, accounting for almost 30% of total banks. In 2000, their number had risen to 202, accounting for more than 60% of all banks. In particular in Croatia, Hungary, Lithuania, Poland, Romania the number of foreign banks grew very strongly. In Latvia, the Slovak Republic and

Slovenia the number of foreign banks is in 2000 about the same as in the first year of observation.

Figure 5. Number of banks and total bank assets in CEE countries: foreign versus domestic, 1995-2000 (%)



Source: Foreign and domestic banks: Central banks of Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, the Slovak Republic, Slovenia. Relative amount of foreign and domestic banks assets: idem minus Romania.

Figure 5 also shows foreign banks assets as a percentage of total banks assets in CEE countries, while Appendix 2.2 gives the figures for the individual countries. It appears that foreign bank participation increased considerably during the second half of the 1990s. At the end of the decade, the share of banking assets under foreign control had reached around 64%. After several banking crises hit most transition countries in the mid-1990s (see Caprio and Klingebiel (2002) for an overview of the different crises), bank privatization furthered foreign participation. Initially, most sales involved medium-sized banks. Later on, the larger state-owned saving banks were sold too. For example, in Estonia, the first foreign-owned bank was already established in 1992. But only in 1998 the share of foreign bank assets rose to 90%. During the same period, the number of foreign banks as share of the total number of banks in Estonia increased from 8% to 50%, reflecting that the two largest banks (Hansa Bank and Eesti Uhispank) were sold to foreign banks in 1998 (EBRD, 2001).

3. Foreign bank characteristics

So far, our analysis has been based on aggregated data mainly provided by national central banks (see part A of Appendix 1). In order to analyze characteristics of individual banks (like the origin of foreign banks and their entry strategy) we use the BankScope database (see part B of Appendix 1).[3] BankScope provides balance sheet data and profit and loss accounts for individual banks, adjusting individual bank accounts for differences in reporting and accounting standards. Our sample is taken from the September 2001 version with data for the period 1991-2000.

Three problems arise when using BankScope. Firstly, BankScope contains banks not being active on the market anymore due to bankruptcy, take-over or a merger. Secondly, BankScope does not contain all banks active on the market. Thirdly, BankScope does not capture foreign branches; this can lead to an underestimation of the level of foreign participation.

These problems differ in weight for the specific countries. To deal with these problems and making the BankScope database more reliable and useful, the background of every bank has been checked using the homepages of the banks or by having email contact with the bank. BankScope provides balance sheet data and profit and loss accounts. We have added the following information: the year of establishment of the bank, whether the bank is foreign or not, the year the bank became foreign, whether it was a greenfield investment and, finally, the country of origin of the foreign owner. Furthermore, banks active on the market but not recorded in BankScope and foreign branches have been detected and added to the database, using the homepages of the specific banks.

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[3] From Appendix 3, it appears that the aggregated data base and the extended BankScope data set are quite similar, although some small differences remain, in particular for the Czech and Slovak Republics. Part of the difference is due to differences in the definition of a bank. For the aggregated data base we use the definition of a bank of Beck et al. (1999). Consequently, the aggregated data base does not contain saving banks, cooperative banks, mortgage banks and building societies. The classification ‘commercial banks’, which is used in BankScope, is not exactly the same.

With respect to the characteristics of the foreign banks in the CEE countries, we may summarize our findings as follows. The three largest banks in each European transition economy are, with a few exceptions, in foreign hands. Table 1 gives the nationality of the owner of the largest three banks in each country in October 2000. There is a relatively strong presence of neighboring countries in some of the European transition economies. For example, in the Baltic countries Swedish banks (in most cases Hansabank) own the big banks. Austrian banks are well represented in the Slovak Republic and Croatia. Many Italian banks have been established in Croatia. Banks from non-European countries are almost absent in the transition countries, the US-based Citibank and GE Capital being the exceptions. In 2000 in Croatia, Hungary, Slovenia and Romania the largest bank was still owned by the government or it was a local private bank.

Table 1. Ownership of the largest three banks as of October 2000.

	No. 1	***No. 2***	***No. 3***
Estonia	Sweden	Sweden	Finland
Latvia	Domestic	Sweden	Domestic
Lithuania	Sweden	Sweden	Domestic
Croatia	State	Italy	Luxembourg
Romania	State	France	Turkey
Czech Republic	Belgium	Austria	France
Hungary	Domestic	Belgium	Germany
Poland	Italy	US	Ireland
Slovakia	Italy	Austria	Austria
Slovenia	State	State	France

Source: BankScope

The number of greenfield investments is around 40% of the total number of foreign banks. Furthermore, the number of banks with less than 50% foreign participation has decreased over time. The most frequently used mode of entry of foreign banks is that the foreign bank initially buys a small part of a domestic bank. Over time, this share is expanded until a majority of the shares is acquired. This approach may be regarded as typical for expansion into the transition countries. It contains aspects of a greenfield investment and of an acquisition (as the bank regains control over an already existing institution). Also, in some countries, buying an existing bank means getting around restrictions concerning greenfields. For example, in Poland foreign banks were required, in most cases, to take over existing troubled Polish banks in order to obtain licenses (EBRD, 1998).

When a foreign-owned bank buys a domestic bank in a transition country, the newly bought bank usually keeps its original name. On average, only about 30% of the acquired banks uses the name of the foreign acquirer. However, we witness that this practice varies from country to country. For example, in Hungary most banks bought by a foreign bank get a new name. In Bulgaria, however, banks usually continue to operate under their original name.

4. Activities of domestic versus foreign banks

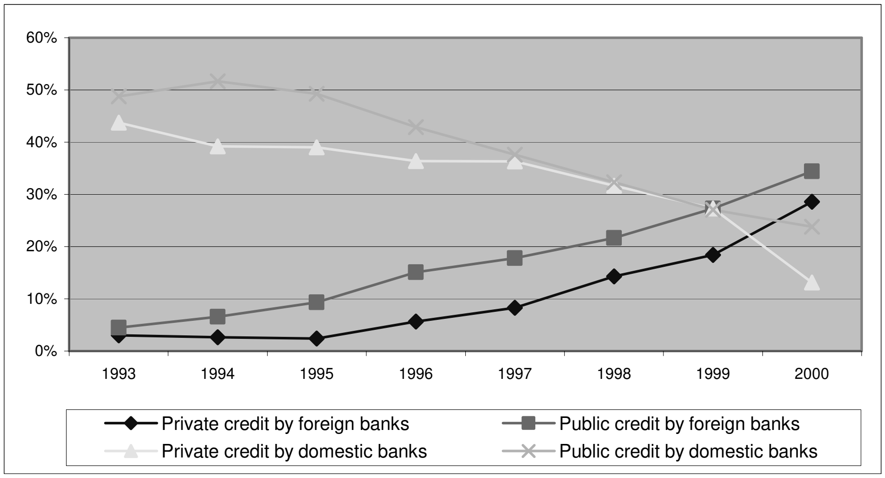
There are various motives for banks to go abroad and various determinants are involved in foreign banking (see Scholtens, 1992). One of the main reasons for foreign expansion is that foreign banks follow their customers (Goldberg and Saunders, 1991; Brealey and Kaplanis, 1996; Konopielko, 1999; Buch, 2000; Moshirian, 2001; Green, Murinde and Nikolov, 2002; Lensink and Hermes, 2002; Williams 2002). However, Seth, Nolle and Mohanty (1998) find that foreign-owned banks first and foremost lend to borrowers other than customers from the home nation. Du (2003) finds that foreign subsidiaries of multinational enterprises have incentives to borrow from local, in particular domestic, banks, rather than from the parent's bank. The main reason, according to Du (2003), is that bank co-financing with local participation hardens the budget constraint because local banks have strength in seizing firm assets in liquidation. Stanley, Roger and McManis (1998) mention that foreign banks tend to have high proportions of their assets invested in loans to domestic borrowers. Berger, Klapper and Udell (2001) and Clarke, Cull and Martinez-Peria (2001) find that foreign banks have problems supplying funds to small businesses. Once established abroad, foreign banks focus their activities mainly on large enterprises.

The activities of foreign banks are also dependent on the mode of entry. A take-over goes along with the acquisition of the existing client base, including its retail banking activities. Along with the greenfield investment goes the ability to build up the activities from scratch. The bank does not have to cope with the potential of a bad loans portfolio from past activities. Regulation may also affect the activities of foreign banks. In Slovenia, for example, liberalization of foreign borrowing by residents and the abolition of interest rate ceilings on deposits have created a more competitive environment, but only since 1999 (EBRD, 2001). Likewise, Hungary initially did not permit banks to provide financial and insurance services. Changed legislation in 1999 resulted in a movement towards a model of universal banking (ECB, 2001).

We investigate what role foreign banks play in extending credit to the private and the public sector in comparison with domestic banks. Figure 6 shows the development of the average volume of credit to the private and public sector as share of total bank credit over the period 1993-2000 both by domestic and foreign banks. It is clear that domestic banks have been replaced by foreign banks as creditors. In 1993, domestic banks were the primary source of credit for the public and the private sector, while in 2000 foreign banks dominate both markets. Credit to the public sector exceeds credit to the private sector for domestic as well as for foreign banks. We find that the huge amount of credit to the public sector in the Czech

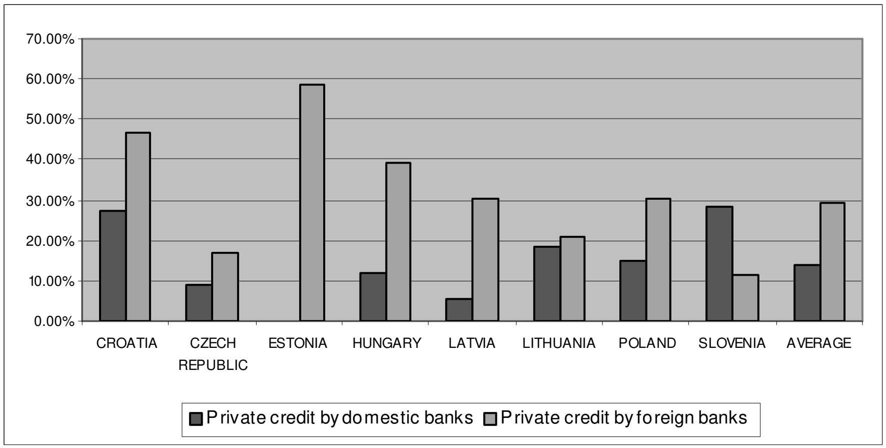
Republic influences the two averages for the foreign banks to a great extent. With the Czech Republic not taken into account, credit to the private sector by foreign banks would exceed credit to the public sector as from 1998. Leaving out the Czech Republic hardly has any effect for the trend in credit supply by domestic banks; they still lend primarily to the public sector.

Figure 6. Credit supply of domestic and foreign banks as share (%) of total bank credit in CEE countries , 1993-2000



Source: Central banks of Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland and Slovenia.

Figure 7. Credit to the private sector as share of total bank credit: domestic vs. foreign banks, 2000



Source: Central banks of Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland and Slovenia.

As can be observed from Figure 7, foreign banks in all transition countries, except for Slovenia, appear to be more involved with lending to the private sector than domestic banks. Still, there are substantial differences among the transition countries as to the relative importance of private lending by foreign banks. The most extreme case is Estonia, where domestic banks hardly provide credit to the private sector.

5. Performance

According to Claessens et al. (2001), foreign banks are more profitable and efficient than domestic banks in developing countries, while in developed countries domestic banks are more profitable and efficient than foreign banks. These differences can reflect a differential impact of informational (dis)advantages, customer bases, bank procedures as well as different relevant regulatory and tax regimes. In contrast, DeYoung and Nolle (1996) and Berger, DeYoung, Genay and Udell (2000) find that foreign banks are less efficient than host nation banks in developed nations. Berger, Dai, Ongena and Smith (2003) find that foreign affiliates of multinational firms use host nation banks for cash management services. This choice appears to affect the geographic scope and size of the chosen bank, the so-called bank reach. Furthermore, they find that legal and financial development of the host nation affect both bank nationality and bank reach. Focarelli and Pozzolo (2001) and Buch and DeLong (2001) analyze cross-border M&A in the banking industry. These, in general, appear to be relatively unprofitable (see also Berger et al., 2000; DeLong, 2001).

There are only few studies on the profitability and efficiency of the banking sector in the transition economies. Green et al. (2002) estimate the efficiency of domestic and foreign banks in Central and Eastern Europe, in terms of economies of scale and scope. They find that foreign banks are not really different from domestic banks and that bank ownership (foreign versus domestic) is not an important factor in reducing bank costs. Kraft and Tirtiroglu (1998) have studied X-efficiency and scale-efficiencies for both old and new (state and private) banks in Croatia. New banks (i.e. foreign banks) are shown to be more X-inefficient and more scale-inefficient than either old privatized banks or old state banks. However, new private banks are highly profitable. According to these authors, this abnormal situation has been the result of free-riding opportunities created by distressed borrowers, limited competition and start-up difficulties of the new banks. Yildirim and Philippatos (2002) find that foreign banks in transition countries are more cost efficient but less profit efficient relative to domestic banks. Zajc (2002) finds for six European transition countries that foreign bank entry reduces net-interest income and profit, and increases costs of domestic banks.

To examine to what extent foreign banks are more efficient and profitable in transition countries, we investigate a number of indicators at the aggregate level for both foreign and domestic banks: the return on assets (ROA), after tax income, net interest margin, and overhead costs.[4] The first indicators reflect banks' profitability, the third indicator signals credit market efficiency, and the final one reflects operational efficiency of the banks.

Figure 8 gives the average ROA for foreign and domestic banks[5]. It appears that the average ROA of foreign banks is higher than the average ROA of the domestic banks. The picture is severely affected by bad results for domestic banks in 1998 and 1999. In all other years, the ROA of domestic banks did not diverge much from that of foreign banks.

The ROA of foreign banks in Croatia sharply increased since its opening up to foreign banks. In Romania and Hungary, the foreign banks' ROA fell in the period under consideration. Estonian domestic banks had a particular bad year in 1998 when their combined ROA was –24%. Without Estonian banks, domestic banks' ROA in transition countries would have been –1.5% instead of –4.3%. Figure 8 shows that the ROA of domestic banks tends to converge to the average ROA level of foreign banks. The general conclusion can be that both for domestic and for foreign banks there is an upward trend in ROA, while domestic banks were more sensitive to the economic and financial crisis in 1998 (moratorium from the Russian debt crisis) than foreign banks.

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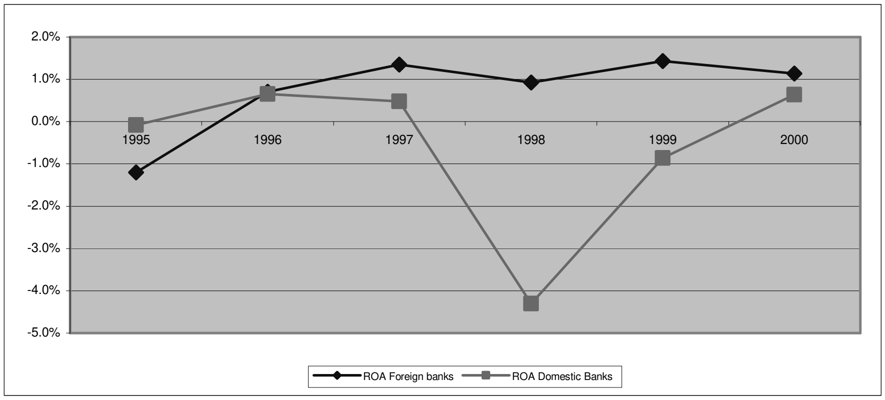
[4] The data about foreign and domestic bank performance in individual countries are available upon request.

[5] Unfortunately, we do not have access to reliable information in order to adjust these data for risk.

Figure 8. Return on assets of banks in CEE countries: foreign vs. domestic banks, 1995-2000

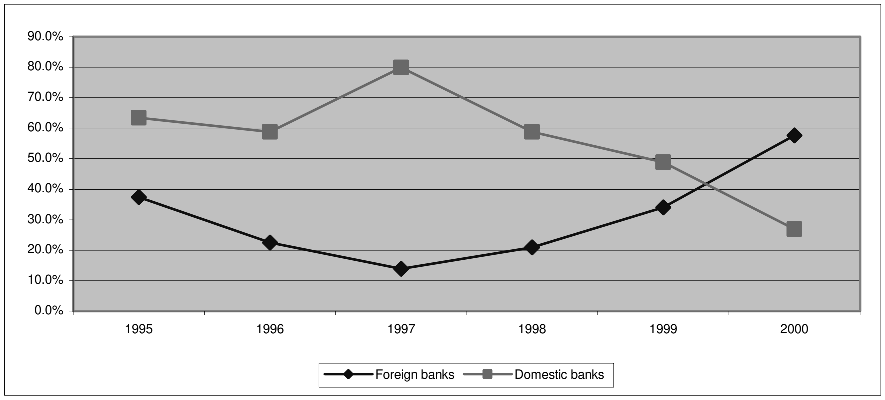


Source: Central banks of Croatia, the Czech Republic, Estonia, Hungary, Lithuania, Romania, the Slovak Republic and Slovenia.

The pattern for after tax income of domestic and foreign banks differs substantially from that of the aforementioned performance indicator. Domestic and foreign banks are subject to contrasting developments in their after-tax income (see figure 9). As foreign banks initially experienced a decreasing after tax-income, after 1997 their after tax income followed an upward trend. Domestic banks however generate lower income every year since 1997. Both foreign and domestic banks generate a low after-tax income in Croatia and Estonia. In contrast, after tax income is relatively high in the Czech Republic, Hungary and Slovenia.

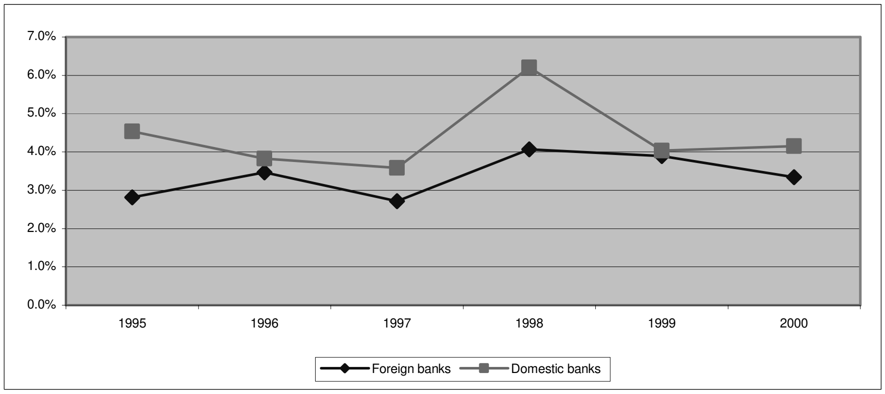
Figure 10 reveals that the interest margin of domestic banks is higher than that of foreign banks. Interest margin is defined as banks net interest income as a share of its total assets. With respect to this performance indicator, domestic and foreign banks appear to move closely together after 1998, but in 2000, they seem to diverge. The Czech Republic witnessed the lowest margins for its domestic banks. Croatia and Estonia had, especially during the late 1990s, a high margin, both for their domestic and foreign banks.

Figure 9. After-tax income of banks in CEE countries: foreign vs. domestic banks, 1995-2000



Source: Central banks of Croatia, the Czech Republic, Estonia, Hungary, Lithuania, Poland, the Slovak Republic, Slovenia.

Figure 10. Average interest margin in CEE countries: domestic vs. foreign banks, 1995-2000

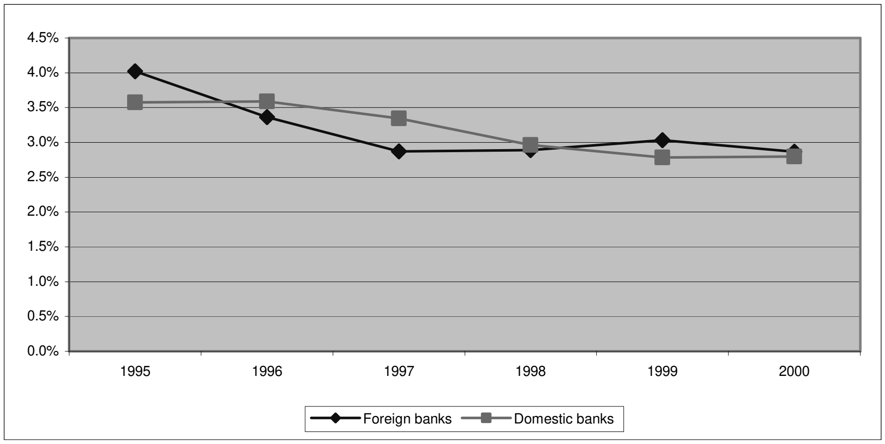


Source: Central banks of Croatia, the Czech Republic, Estonia, Hungary, Lithuania, the Slovak Republic.

Claessens et al. (2001) and Kraft and Tirtiroglu (1998) conclude that foreign banks are more profitable than domestic banks in transition economies. Our results broadly confirm these findings, but they also show that foreign banks need some time before they outperform domestic banks**.**

A stylized fact from the economic literature as referred to above is that the costs of foreign banks are lower than those of domestic banks. However, for the transition countries, figure 11 reveals that the differences between domestic and foreign banks in the overhead costs as percentage of the total assets are rather small. In addition, one can observe the downward trend for both domestic and foreign banks. In the Czech Republic, the costs of domestic banks are even lower than the costs of most foreign banks in other countries. However, the foreign banks in the Czech Republic also have a lower cost level than the domestic ones. Estonia and Lithuania show a strong decrease in costs of domestic banks during the second part of the nineties. According to Lensink and Hermes (2002), the costs of domestic banks in developing countries rise with foreign bank entry. We cannot confirm their conclusion for the transition economies.

Figure 11. Average non-interest costs of banks in CEE countries: domestic vs. foreign banks, 1995-2000



Source: Central banks of Croatia, the Czech Republic, Estonia, Hungary, Lithuania, the Slovak Republic, Slovenia.

In sum, we find that foreign banks in the transition economies generally outperform domestic banks in terms of bank profitability. However, we also find that most performance indicators converge in the late 1990s.

6. Concluding comments

Foreign bank entry has been one of the most striking features of the development of the banking system in the European transition economies. At present, more than half the number of banks in the transition economies is foreign-owned and foreign-owned banks possess two thirds of total bank assets. This ‘takeover’ occurred within a period of less than ten years. However, the speed of financial development has been rather slow in the transition countries, in particular the level of credit to the private sector. In the early years of transition, foreign banks established representative offices and took minority interests in domestic banks. It appears that geographical relatedness has been an important factor as far as the choice of the country of entry is concerned. From the mid-1990s onwards, foreign banks established greenfields and took minority interests in domestic banks. They gradually increased these interests and were active buyers of stakes in privatized banks. Ultimately, this has resulted in a substantial number of majority interests of foreign banks.

Whether the extensive involvement of foreign banks has been beneficial to European transition countries is hard to say. According to our analysis up to 2000, the general level of financial development, e.g. the level of total claims in the banking system as percentage of GDP, has increased only moderately. In addition, the composition of the financial structure did not change much: credit supplied to the private sector rose only moderately. Foreign banks contributed to this development only in that they took over the role as creditor. Although foreign banks lend more to the private sector than domestic banks, public credit of foreign banks exceeds private credit.

We also find that profitability of foreign banks is above that of domestic banks. The interest margins of foreign banks are somewhat below that of the domestic banks, non-interest income is higher, while overhead costs are about the same as that of domestic banks. A convergence with respect to the performance of the domestic and the foreign banks can be witnessed in the transition countries.

Finally, the increased participation of foreign banks also gives rise to numerous other questions. For instance, how does the transfer of know-how and technology occur, and what is its impact upon relative performance? Is the huge foreign bank presence sustainable and what are the implications for financial stability? Which strategies are behind the foreign bank penetration into Central and Eastern Europe and when will credit to the private sector be on a Western European level? These questions may be subject for further research.

Appendix 1. Description of the database

The database contains two parts:

Part A:

Aggregated data on the development, structure and performance of the banking systems.

Source: (a) National Central Banks, and (b) International Financial Statistics of the IMF. In case the data conflicted, we opted for those provided by the National Central Banks.

The database includes 15 templates for the period 1990-2000 :

1 Deposit money banks assets as percentage of GDP (a) and (b)
2 Private credit by deposit money banks as percentage of GDP (a) and (b)
3 Deposit money bank assets to total financial assets (a) and (b)
4 Foreign bank assets as percentage of GDP (a)
5 Private credit by foreign banks as percentage of GDP (a)
6 Foreign banks assets as share of deposit money banks assets (a)
7 Number of foreign and domestic banks (a)
8 Number of foreign subsidiaries (a)
9 Number of foreign branches (a)
10 Number of banks with foreign participation (a)
11 Return on assets (ROA) of foreign and domestic banks (a)
12 Return on equity (ROE) of foreign and domestic banks (a)
13 Net interest margin of foreign and domestic banks (a)
14 Overhead costs as share of total assets of foreign and domestic banks (a)
15 After tax income (% of total income) of foreign and domestic banks (a)

Definitions:

'Deposit money banks' comprises all financial institutions that have 'liabilities in the form of deposits transferable by check or otherwise usable in making payments. 'Assets' refers to total domestic financial intermediation that the respective intermediary performs; see Beck et al. (1999), p.4 (IMF definition).

Assets: see Beck et al. (1999), Appendix, p. 4 (line 22 in IFS).

Foreign means: At least 50% of the shares of a bank is foreign owned.

Foreign participation: more than 5% and less than 50% foreign owned.

Net interest margin: see Beck et al. (1999).

Overhead costs: see Beck et al. (1999).

Part B:

Micro data. Parts of the financial statement and balance sheet of all banks recorded in BankScope plus background information of the foreign owner

Source: (a) BankScope database, and (b) annual report, internet, email contact .

The database contains 17 variables for the period 1990-2000:

1 Country name (a)
2 Bank name (a)
3 Year of establishment (a)
4 Domestic or foreign owner (b)
5 Country of origin of foreign main-owner (b)
6 Greenfield or acquisition (b)
7 Country rank (a)
8 Total assets (a)
9 Total customer loans (a)
10 Loans to banks (a)
11 Loans to Municipalities / Government (a)
12 Return on Average Assets (ROAA) - % (a)
13 Return on Average Equity (ROAE) - % (a)
14 Net interest margin (a)
15 Overheads (a)
16 Profit before tax (a)
17 Net income (a)

Appendix 2.1. Number of foreign banks according to central banks.

	1994	1995	1996	1997	1998	1999	2000
Croatia		1	5	7	7	13	20
Czech Rep.	22	24	24	25	25	28	27
Estonia		1	1	1	1	3	4
Hungary	18	18	28	32	32	32	33
Latvia		12	15	16	16	13	13
Lithuania	0	0	3	5	5	7	9
Poland	11	18	25	29	29	39	48
Romania	12	15	19	23	23	26	29
Slovak Rep.	14	18	14	13	10	10	13
Slovenia	6	6	6	4	3	5	6
Foreign banks		113	138	155	163	176	202
% of total banks		27.9%	34.9%	39.2%	44.8%	50.3%	61.0%

Source: Central banks

Appendix 2.2. Foreign banks assets as percentage of total bank assets.

	1994	1995	1996	1997	1998	1999	2000
Croatia		0%	1%	4%	8%	41%	87%
Czech Rep.	11%	17%	20%	24%	27%	40%	66%
Estonia		2%	2%	2%	90%	90%	97%
Hungary	14%	19%	46%	62%	61%	66%	67%
Latvia		36%	53%	72%	81%	76%	78%
Lithuania	0%	0%	28%	41%	52%	38%	57%
Poland	3%	4%	14%	15%	17%	47%	69%
Slovak Rep.	12%	19%	23%	30%	30%	31%	43%
Slovenia	3%	4%	5%	5%	5%	5%	15%
Average	7.5%	11.2%	21.4%	28.3%	41.2%	48.2%	64.4%

Source: Central banks

Appendix 3. Total banks in CEE countries

	Bank Scope	missing banks (+)	expired banks (-)	missing branches (+)	Total :	Total according to central banks:
Croatia	42	9	9	1	43	42
Czech Rep.	27	6	10	10	33	40
Estonia	9	1	4	1	7	7
Hungary	29	8	0	1	38	42
Latvia	28	1	9	1	21	22
Lithuania	13	1	5	4	13	13
Poland	50	28	6	3	75	74
Romania	26	8	4	8	38	41
Slovak Rep.	20	2	6	2	18	23
Slovenia	26	4	7	0	23	25
TOTAL	270	68	60	31	309	329

Sources: see Appendix 1.

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