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Mode of Entry and Effects on Bank
Interest Rates**

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Foreign Banks in Eastern Europe: Mode of Entry and Effects on Bank Interest Rates

Sophie Claeys* and Christa Hainz*

Abstract: Credit markets in many Eastern European countries are now dominated by foreign-owned banks. We analyze the development for foreign ownership and its impact on lending rate in ten Eastern European countries between 1995 and 2003. Currently, the majority of loans from foreign banks is granted by acquired banks. The presence of foreign acquired banks as measured by their relative number among the banks in our dataset increased somewhat slower than that of foreign *de novo* banks. However, since market entry through acquisition allows acquiring a credit portfolio and a customer base, acquired banks were able to expand their market share much faster than the foreign *de novo* banks. Our results also show that the interest rate decreased after foreign bank entry. Moreover, while the reduction in interest rates of domestic banks is more pronounced in the case of foreign entry through a *de novo* investment, foreign *de novo* banks charge higher interest rates than foreign acquired banks.

Keywords: SME, Banking, Foreign Entry, Mode of Entry, Interest Rate

JEL Classification: D4, G21

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1. Introduction

Many emerging countries are hesitant about letting foreign banks enter their market. When deciding on the liberalization of the banking sector, policy makers weigh the costs and benefits of foreign bank entry on the domestic banks and on the corporate sector. On the one hand, governments fear that foreign banks will engage in *cherry picking*, leaving the domestic banks with bad loans in their portfolio. On the other hand, the local banking market can benefit from the better technologies that foreign banks use through learning and spillover effects. Through an increase in bank competition, domestic firms may gain by paying lower interest rates for their loans.

The empirical facts about bank market entry differ substantially between regions. In Europe, for instance, foreign bank market share in banking sector total assets amounts to about 55 per cent in 2003 in the new EU member states, while being almost absent in the large EU-15 countries (ECB, 2005). This is surprising, because there are no formal restrictions on market entry. Interestingly, the foreign-owned banks in more developed countries have a lower profitability than domestic banks (Claessens et al., 2001).

Rather the opposite situation is found in emerging countries. In these markets, foreign banks are often more profitable and efficient than domestic banks (Demirgüç-Kunt and Huizinga, 2000, Bonin et al., 2005, Martinez Peria and Mody, 2004). More importantly, foreign bank presence may improve access to credit for creditworthy firms (Giannetti and Ongena, 2005). In Eastern Europe, foreign bank entry has increased competition and improved lending technologies such that lending to SME and retail markets gradually increased (De Haas and Naaborg, 2005).

Policy makers do not only decide on the liberalization of bank entry but often also on the mode of entry. Depending on their evaluation of the entry mode, governments provide incentives that encourage foreign bank entry either through a greenfield investment, by establishing a foreign *de novo* bank, or through acquisition. However, while empirical evidence shows that foreign *de novo* banks are more profitable and efficient than foreign acquired banks (Martinez Peria and Mody, 2004, Majnoni et al., 2003), the differential impact of the mode of entry on domestic bank lending conditions and competition remains unclear.

In this paper, we shed light on how the impact of foreign bank entry on the host country depends on the *entry mode*. We analyze the impact of the mode of entry on competition. Specifically, we investigate the effects of the mode of foreign bank entry on the lending rate in markets where firms heavily depend on bank financing: are lending rates higher if foreign entry predominantly happens through the establishment of a *de novo* bank or through the acquisition of a domestic bank? Neither the theoretical nor the empirical literature provides complete answers to this question.

We focus on the transition economies of Central and Eastern Europe, where foreign banks are now dominating the market (foreign bank market shares went up from approximately 10 percent in 1995 to almost 64 percent in 2003, on average). Furthermore, these markets are characterized by heterogeneous forms of market entry, that moreover vary over time. This allows scope to analyze the direct or initial impact of foreign entry.

2. The impact of the mode of foreign bank entry on creditor information

In Claeys and Hainz (2006), we develop a theoretical model in which domestic banks possess private information about their incumbent clients but foreign banks have better screening skills. We argue that, after foreign bank entry, information on old and new firms' creditworthiness is unevenly distributed between the foreign and the domestic bank. First, the domestic bank has access to *soft* information of those firms with which it has already established a relationship in the past. This generates an absolute information advantage for the domestic bank about these old firms' creditworthiness. Second, in an emerging market context, the foreign bank is assumed to possess better screening skills than the domestic bank. This implies that the foreign bank will be able to better process hard information about new firms that apply for credit through credit evaluation. We show that this information advantage allows the foreign bank to offer slightly lower rates than the domestic bank. However, the information advantage also enables the foreign bank to extract rents from firms that apply for credit for the first time when offering credit contracts. Foreign banks will therefore be able to offer more competitive rates than the domestic bank to new applicants. As a result, foreign bank entry will drive down a country's average interest rate for new loans.

However, the foreign bank's scope for extracting rents from new applicants depends on the mode of entry. A foreign *de novo* bank will only enter the market if its advantage in screening new firms compensates the disadvantage it has compared to the domestic banks with respect to *soft* information about old firms. If a foreign bank acquires a domestic bank, it also acquires the credit portfolio which contains information about the quality of client firms. In addition to this acquired information, the bank possesses superior screening skills compared to domestic banks. The distribution of information between domestic and foreign banks and consequently the degree of competition depend on the mode of entry. We refer to this differential effect as a 'competition effect' that depends on the mode of entry.

This argument indicates that interest rates for new creditors will be lower when the foreign bank enters the market by establishing a foreign *de novo* bank compared to acquiring a domestic bank. However, the average interest rate that a bank demands depends on a bank's portfolio composition of newly applying and old firms. Therefore, we additionally analyze what we refer to as the 'portfolio composition effect'. Old firms might get more favourable rates from their incumbent bank, such that the average lending rate demanded by acquired banks may still be lower than the one from a foreign *de novo* bank.

3. Entry policy in Central and Eastern Europe

The disperse process of deregulation in the countries of Central and Eastern Europe led to an uneven reduction of the barriers to entry. The countries that we analyze are Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, the Slovak Republic and Slovenia for the period 1995-2003. These countries have shown widely different policies towards the mode of foreign bank entry.¹ Foreign bank entry was sometimes allowed already early in transition - with changing restrictions on the mode of entry.

The example of Poland illustrates how government policy has changed during the last 15 years. In the very beginning of the transition process, bank entry was not

¹ For an overview, see Bonin et al. (1998). For a detailed listing on foreign *de novo* entry, foreign and domestic mergers and acquisitions between 1990 and 2003 in Central and Eastern Europe, we refer to Claeys and Hainz (2005).

regulated. Foreign banks were even given tax holidays. After many small, undercapitalized banks had entered, the minimum capital requirement increased and tax holidays for foreign banks were eliminated. Starting in 1992, the Polish government preferred selling its weak domestic banks to foreign owners over issuing new bank licenses to foreign banks. The aim of the politicians was to sell (often) weak domestic banks to foreign banks, which brought in new capital and could use their expertise to restructure these banks. Between 1993 and 1997 the first banks were privatized, but the government was mainly selling minority shares to foreign investors. In 1999 the government started to sell majority shares of the state-owned banks to foreign investors and allowed foreign banks to open branches without restraints (NBP, 2001).

4. Data for ownership structure

We want to determine and compare what average lending rates look like if a foreign bank enters either through a *de novo* investment or through acquisition. For this purpose, we create a database that captures the time-varying ownership structure of individual banks in Central and Eastern Europe.

We use yearly data of about 200 individual banks in 10 Eastern European transition countries, for the period 1995-2003. For each country, we gather commercial banks' balance sheets and income and loss accounts from the BankScope database maintained by Fitch/IBCA/Bureau Van Dijk. Consolidated statements were preferred but unconsolidated statements were used when the consolidated one was not available. We obtain historical bank-specific ownership data from central and commercial banks' annual reports. Each bank is classified as either domestically or foreign owned, whereby a foreign bank can be the result of a cross-border acquisition or a greenfield investment. A bank is classified as foreign when at least 50 per cent of its shares is foreign owned. We distinguish between banks that are foreign owned since the start of the sample in the year 1995 and banks that become foreign owned from 1995 onwards. Each foreign bank can enter the sample either as a foreign *de novo* bank or as a foreign acquired bank.

In order to capture the differences in information distribution and screening skills as described above, we assume that for each bank the following events related to acquisition can occur during the sample period:

- (1) foreign *de novo* bank acquires a domestic bank;
- (2) foreign acquired bank acquires domestic, foreign acquired or foreign *de novo* bank;
- (3) foreign *de novo* bank acquires foreign *de novo* bank;
- (4) domestic bank acquires domestic bank.

For case (1), the merged bank is classified as having entered via acquisition from the date of acquisition onwards. For case (2), banks remain classified as foreign acquired banks. This classification enables us to distinguish between banks which have (a) access to *soft* information but have inferior screening skills (domestic banks), (b) *soft* information and a superior screening ability (foreign acquired banks) and (c) only screening ability (foreign *de novo* banks). For cases (3) and (4) we assume that these mergers simply lead to bigger banks, without generating an impact on information distribution.

5. Summary statistics

Table 1 presents the average percentage of foreign bank presence and market share in total loans by mode of entry for the period 1992-2003.

[Insert Table 1]

Foreign bank participation has increased dramatically. In 1992, about 16 per cent of the banks in our sample were foreign owned. Foreign bank presence rose to 57 per cent in 2003, in which year they represent a market share of 64 per cent. In the beginning of the 1990s, the majority of foreign bank entry is via the establishment of a *de novo* bank. While foreign *de novo* banks represent on average 22 per cent, foreign bank acquisitions account for 14 per cent. However, foreign acquired banks gradually increase their presence over the years and represent 33 per cent of all banks in our sample by 2003. Foreign acquisitions eventually become the dominant mode of entry: banks that are foreign acquired between 1992 and 2003 have a market share of 25 per cent, on average, while foreign banks that entered the Central and Eastern European banking markets through a *de novo* investment have on average a market share of 11 per cent. Since

foreign acquired banks buy a customer base, their market share grows much faster than that of *de novo* banks. In 2003, foreign acquired banks possess a market share of 48 per cent whereas foreign *de novo* banks only have 16 per cent of the credit market.

Figures 1 and 2 show how foreign bank presence varies over countries and over time, by mode of entry. Figure 1 presents the percentage of foreign bank presence; figure 2 shows market shares starting from 1995.

[Insert Figures 1 and 2]

The figures reveal some important differences between the countries. The figures show that countries that joined the European Union already in May 2004 differ from those applying for membership in 2007. In Bulgaria and Croatia, the neighbours of the enlarged European Union, the market share of foreign banks is about 46 per cent and 36 per cent respectively in 2003 and thereby remains significantly lower than in the other eight countries.

In Hungary, foreign banks already outnumbered domestic banks in 1993. Due to the Hungarian liberalization strategy that started in the early 1980s, the share of foreign banks has gradually risen and now represents more than 70 percent of the market. In the beginning of the 1990s, also the Czech Republic and the Polish banking sector were characterized by a large inflow of foreign *de novo* banks. The cumulative market share for *de novo* banks is, however, relatively small (7 and 17 per cent) compared to the market share for *de novo* banks in Hungary (24 per cent). In 1999 the Polish government started to sell majority shares of domestic banks to foreign investors. This led the number of foreign banks in Poland to exceed the number of domestic banks in 1999 and dominate the market in terms of market share since 2000.

The Baltic countries started liberalizing market entry into the banking sector relatively late. Therefore, the changes observed are even more dramatic. Estonia, for example, has only three foreign-owned banks (AS Sampo Pank, Hansabank and Eesti Uhispank), but Hansabank alone accounts for over 70 percent of assets since 2001 (Claeys and Hainz, 2005). Thus, banking in Estonia can be considered as predominantly a foreign affair.

In Slovakia, foreign banks already entered in the early 1990s but they did not become significant players before the year 2000. Although Slovenia is characterized by a relatively low percentage of foreign bank presence, foreign banks obtained over 60 per cent of bank loans by 2002. These loans are almost exclusively granted by foreign acquired banks. Foreign *de novo* banks hardly play a role on the credit market in Slovenia.

Figures 1 and 2 illustrate that there is a considerable amount of foreign entry occurring in most countries included in our sample. Furthermore, the market shares of foreign banks have gradually risen and are starting to dominate the market. Together with the increase in foreign acquisitions, banking markets became more and more concentrated. This resulted in an average market share of almost 60 per cent held by the top 3 banks per country.

6. Evolution of bank lending rates by ownership structure

Figure 3 presents the evolution of average bank lending rates and foreign bank market shares between 1995 and 2003. Compared to Western Europe, bank interest rates are still relatively high, but decreased significantly from 22 per cent in 1995 to 13 per cent in 2003. At the same time, foreign bank market shares increased dramatically to about 64 per cent.

[Insert Figure 3]

In Claeys and Hainz (2006), we perform a regression analysis which confirms that a higher foreign bank share in loans negatively impacts the average lending rate, which supports the competition effect that we describe above. Moreover, we document that an increase in foreign *de novo* market share leads to a bigger reduction in *domestic* bank average lending rates compared to the reduction following an increase in foreign acquired market share. This indicates that competition is more intense when entry predominantly happened through foreign *de novo* investments.

Since we cannot disentangle individual bank-firm relationships through bank balances, we cannot observe the share of old and new firms that apply for credit at the bank. We do however observe the average interest rate that banks charge to both types of

customers. Figure 4 graphs how the average lending rate evolves per year after the foreign bank has entered the market, by mode of entry. Figure 4 also shows the evolution of domestic bank interest rates over the years after entry. From the figure it is clear that on average, foreign banks charge lower interest rates than domestic banks (15.5 and 18.5 per cent respectively). However, in the first year after entry, foreign and domestic bank lending rates do not differ significantly. Furthermore, domestic banks have been operating relatively longer in the market compared to foreign banks. One corollary of this is that in the first year after entry, foreign banks may be charging higher rates than domestic banks that have been in the market longer at that time. However, foreign banks reduce their lending rates much faster compared to domestic banks after entry.

[Insert Figure 4]

Indeed, using regression analysis, we find that foreign acquired banks charge between 1 and 2 per cent less than domestic banks, while foreign *de novo* banks charge, on average, almost 1 per cent more than domestic banks. Furthermore, while foreign acquired banks already charge less in the first year after acquisition, foreign *de novo* banks initially charge higher lending rates than domestic banks, but quickly reduce their interest rate in the first years after entry. Finally, our results point out that foreign *de novo* banks charge higher lending rates than foreign acquired banks, which indicates that the loan portfolio composition effect dominates the competition effect. The loan portfolio composition effect allows both the domestic and the foreign acquired banks to charge lower average lending rates.

7. Conclusion

Credit markets in many Eastern European countries are now dominated by foreign-owned banks. This ownership structure resulted from the liberalization of foreign bank entry in the early 1990s and the privatization of state-owned banks, mainly by selling majority shares to foreign investors. The majority of loans from foreign banks is granted by acquired banks. The presence of foreign acquired banks as measured by their relative number among the banks in our dataset increased somewhat slower than that of foreign *de novo* banks. However, since market entry through acquisition allows acquiring

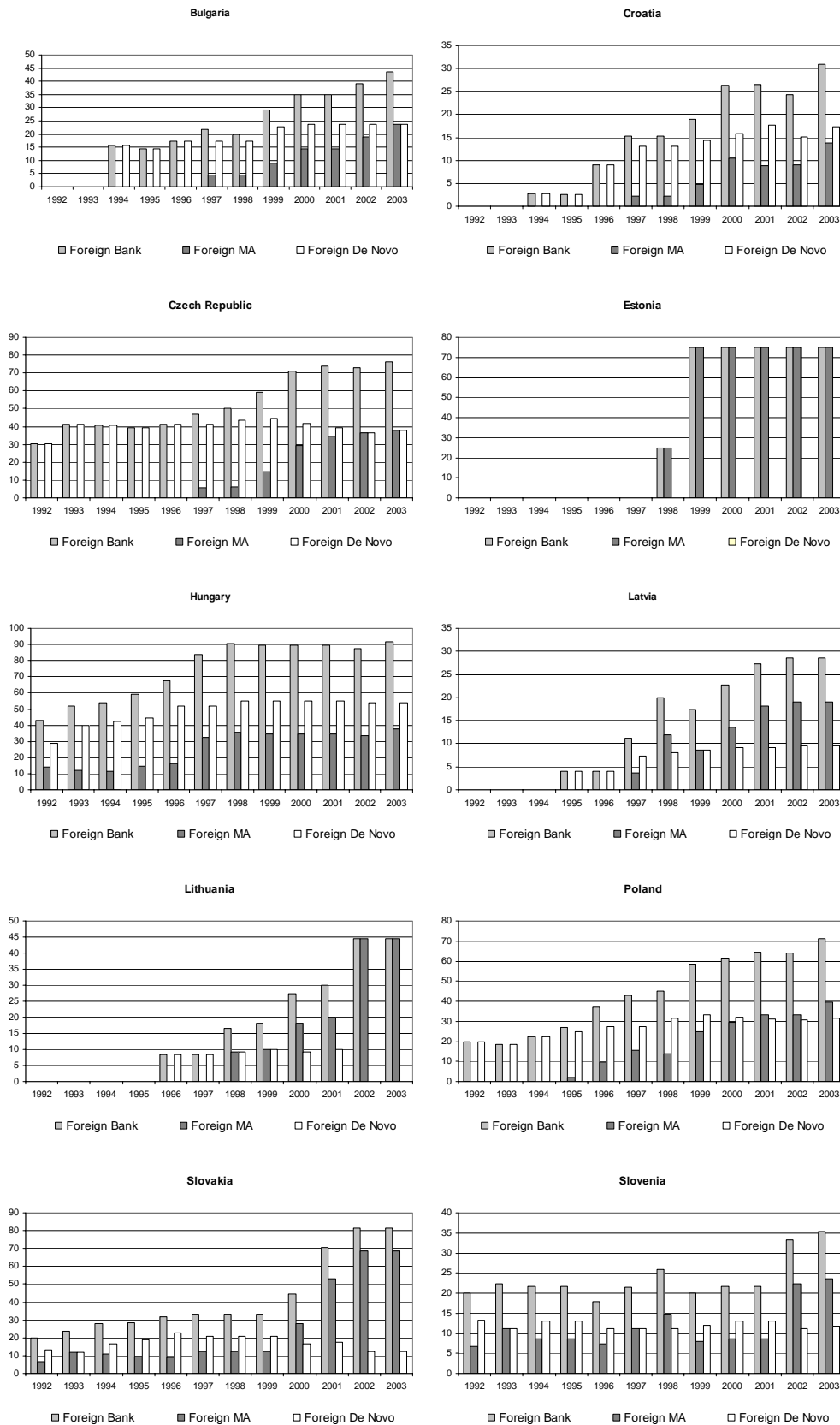
a credit portfolio and a customer base, acquired banks were able to expand their market share much faster than the foreign *de novo* banks. Our results also show that the interest rate decreased after foreign bank entry. Moreover, while the reduction in domestic interest rates is more pronounced in the case of foreign entry through a *de novo* investment, foreign *de novo* banks charge higher interest rates than foreign acquired banks. This result is consistent with the prediction of our theoretical analysis according to which competition increases more if the foreign bank enters as a *de novo* bank.

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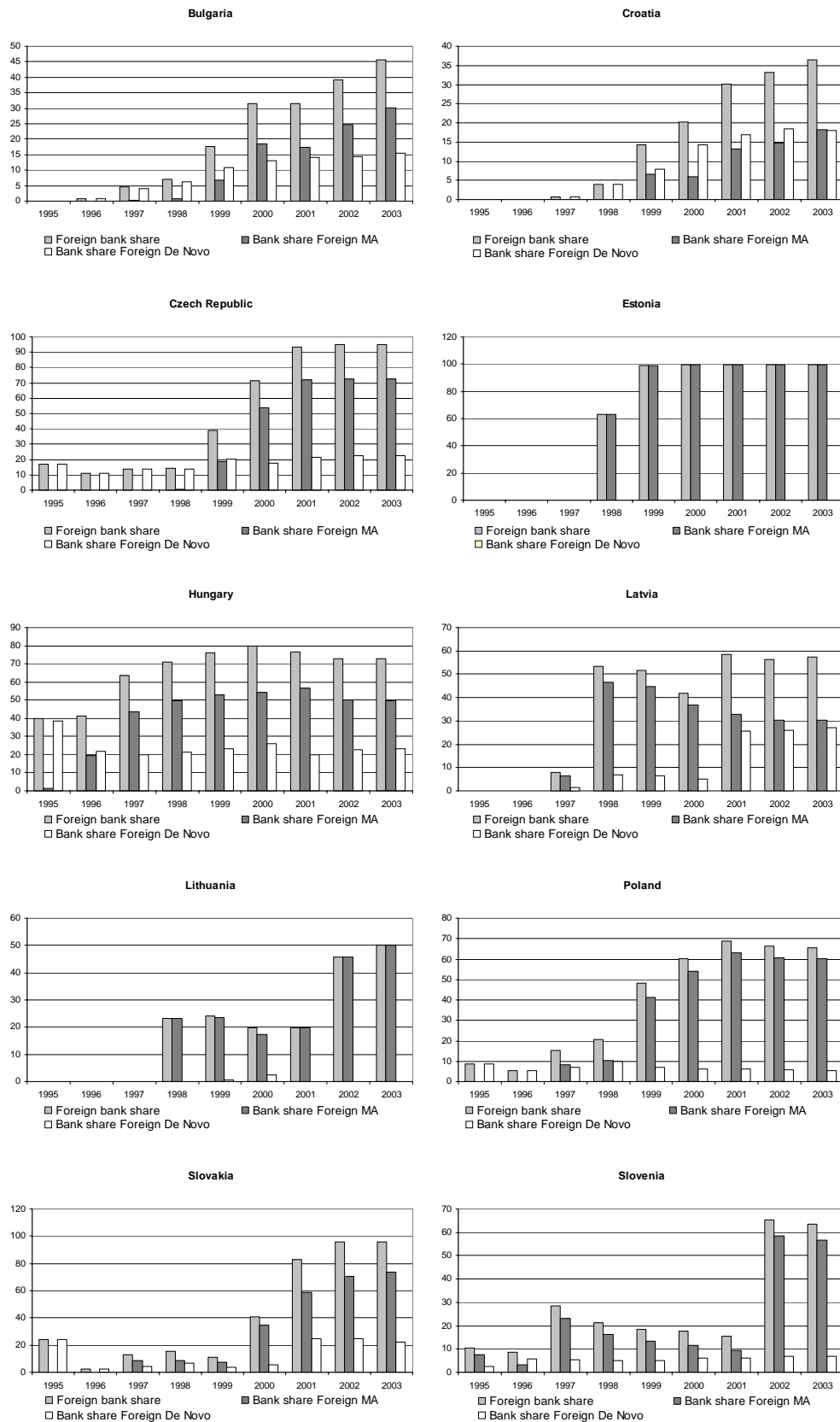
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Figure 1: Foreign bank presence by mode of entry (%).



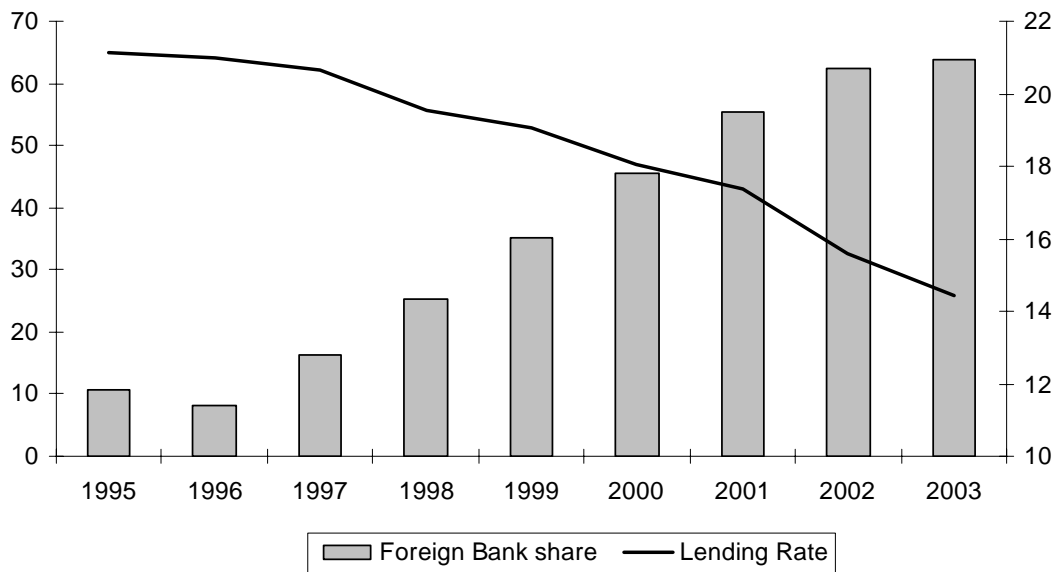
Source: Own calculations based on Bankscope, central banks and bank annual reports.

Figure 2: Foreign bank market share by mode of entry (%).



Source: Own calculations based on Bankscope, central banks and bank annual reports.

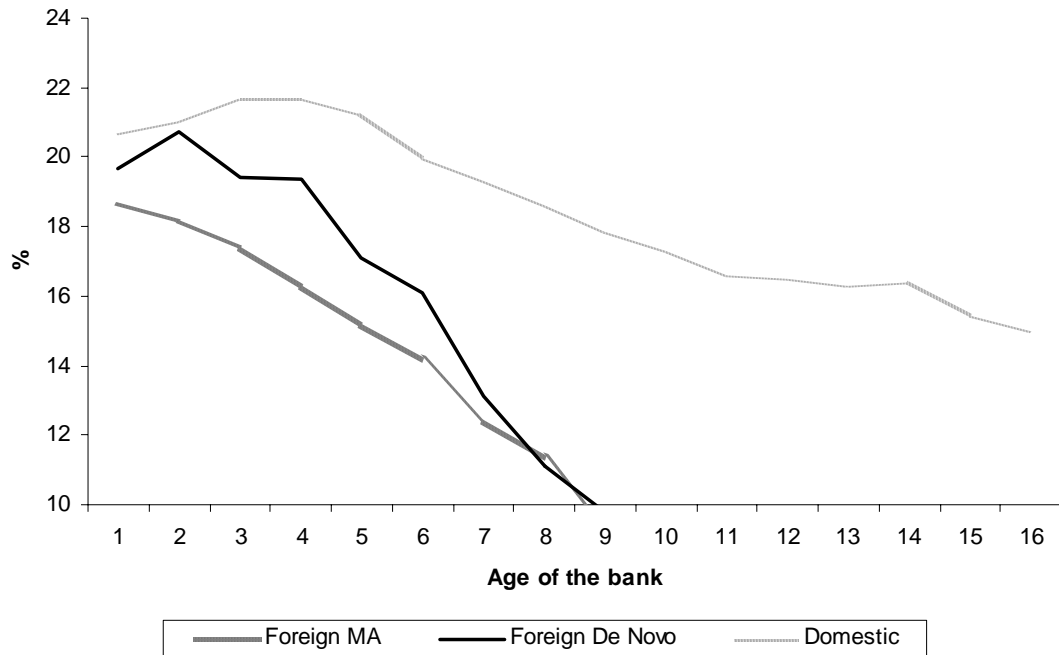
Figure 3: Evolution of bank lending rates (right scale) and foreign bank market share (left scale) (%).



Note: Bank lending rates (%) are calculated as interest income over (two year) average loans (3 year moving average). Foreign bank market share (%) is the ratio of foreign loans to the country total.

Source: Own calculations based on Bankscope and central banks and bank annual reports.

Figure 4: Average lending rates by mode of entry: Evolution per year after entry.



Note: Bank lending rates (%) are calculated as interest income over (two year) average loans (3 year moving average). Foreign MA: a foreign bank that acquires a domestic bank and obtains a majority ownership share. Foreign De Novo: a foreign bank that enters the market as a de novo bank that has a majority foreign ownership share. Domestic: a domestic bank.
 Source: Own calculations based on Bankscope and central banks and bank annual reports.

Table 1: Foreign bank presence and market share by mode of entry (%).

Year	Foreign Bank		Foreign MA		Foreign De Novo	
	Foreign bank presence (%)	Market share (%)	Foreign bank presence (%)	Market share (%)	Foreign bank presence (%)	Market share (%)
1992	15.96		2.66		13.30	
1993	18.47		3.15		15.32	
1994	20.73		2.85		17.89	
1995	22.39	10.82	3.47	0.82	18.92	10.00
1996	27.05	8.02	5.00	2.48	22.14	5.54
1997	32.75	16.28	10.14	9.76	22.73	6.53
1998	36.65	25.36	12.59	16.74	24.46	8.62
1999	41.25	35.23	15.75	25.38	25.98	9.85
2000	47.03	45.48	21.79	34.18	25.64	11.30
2001	50.66	55.37	25.33	40.64	25.78	14.73
2002	52.63	62.36	29.47	46.65	23.67	15.71
2003	56.93	63.94	33.00	48.34	24.50	15.61
Average	35.21	35.87	13.77	25.00	21.69	10.88

Note: Foreign MA: a foreign bank that acquires a domestic bank and obtains a majority ownership share. Foreign De Novo: a foreign bank that enters the market as a de novo bank that has a majority foreign ownership share. Foreign bank presence (%) is the relative number of foreign to domestic banks. Foreign bank market share (%) is the ratio of foreign loans to the country total. The sum of values for Foreign MA and Foreign De Novo can differ from the value for Foreign Bank due to rounding differences.

Source: Own calculations based on Bankscope and central bank and bank annual reports.