FOREIGN BANKS IN CENTRAL AND EASTERN EUROPEAN MARKETS: THEIR ENTRY AND INFLUENCE ON THE BANKING SECTOR

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INTRODUCTION

Motivation for the research

The internationalization process[1] of firms has been intensively studied since the 1960s. Due to the increase in international capital flows, foreign direct investments and international trade at that time, active development of international banking also began. In the transition countries, international banks have operated only since the beginning of the 1990s, after a significant liberalization of the financial market and elimination of entry barriers. At present foreign banks[2] already have more than 60 per cent of the market in the CEE (Central and Eastern European) countries.

Growing foreign ownership in the banking sector raises several interesting questions about the role of foreign banks in transition economies. There are no generally accepted theories to explain the internationalization process of banks in the transition economies and its implications. The main reason for this gap in the literature is that foreign bank entry into emerging market has been actual only with the "third wave" of international banks' activities during the second half of 1990s (Herrero and Simón 2003, p. 3).

The studies about the effects of foreign banks in the CEE transition economies have been mainly descriptive One of the most influential empirical contributions analyzing the impact of foreign banks' entry to the domestic banking market was conducted by Claessens *et al* (1998). In that study the main focus was on foreign banks' entry effects on domestic bank performance in both developed and less developed countries.

There is also extensive literature analyzing the impact of foreign banks on the stability of less developed banking markets (Dages *et al* 2000; Tschoegl 2003; Buch *et al* 2003).

McKinnon (1973; 1993) stressed the importance of financial liberalization in the development of capital markets. The relationships between financial liberalization and the timing of foreign banks' entry during banking crises is also the field where additional knowledge has to be gained. The relationship between financial liberalization and banking crises has also been analyzed (see Demirgüç-Kunt and Detragiache 1998).

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[1] Internationalization is defined as "the process of increasing involvement in international operations" (Welch and Lustarinen 1988, p. 36).

[2] A foreign bank is defined in this dissertation as a bank in which more than 50% of the share capital is owned by foreign residents.

There are very few studies analyzing simultaneously the effect of foreign banks on the performance and stability of the banking market (Demirgüç-Kunt *et al* 1998), but such evidence from the CEE countries is even less analyzed.

An interesting implication of foreign banks' entry that has not been any deeply studied in the CEE markets is the "flight to quality" of deposits phenomenon. Tschoegl (2003) has suggested that the flight to quality could be one of the stabilizing implications of foreign banks' entry. Among other effects of foreign entry, this dissertation aims to find if that applies also to the CEE banking markets.

Another contribution of this dissertation is that a qualitative survey enabling us to analyze the strategies of foreign banks is combined with the statistical analysis to create a comprehensive approach of foreign banks' activities in the CEE countries.

The aim and research tasks of the thesis

The aim of the dissertation is to identify the motives of foreign banks' entry and their influence on the performance and stability of banking sectors in the Central and Eastern European countries. To achieve the aim, the following research tasks are set:

1) To analyze the main theoretical models of the internationalization of banks and to discuss the applicability of these models in the transition economies.
2) To develop a theoretical framework suitable for analyzing the motives and impacts of foreign banks' entry in the CEE countries.
3) To set up research hypotheses about the main factors of the performance and stability of the banking market affected by foreign banks' entry.
4) To test the validity of the research hypotheses based on qualitative and quantitative empirical data from the CEE countries.
5) To provide a synthesis of the research results and draw conclusions about the main effects of foreign banks' entry into the CEE banking markets.

The structure of the thesis

The dissertation consists of two major parts. In the first part, the theoretical background for analyzing the internationalization of banks in transition economies is developed. In Subchapter 1.1 the main theoretical concepts of banks' internationalization are covered. Subchapter 1.2 provides an analysis of contributions about foreign banks' entry effects. Also possible interactions between foreign banks' entry motives, modes and implications are discussed. Then on the basis of the theoretical groundings an integrated approach to foreign banks' entry is formulated and the hypotheses are put forward. The

empirical analysis of foreign banks' entry and its implications is provided in Chapter 2. The internationalization process of banks in the CEE countries is analyzed and the tests of the hypotheses are conducted. The general logic of the thesis is presented in Figure 1.1.

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│   Theories explaining   │        │  Theoretical aspects of │
│ the internationalization│───────▶│ foreign banks' impact on│
│     process of banks    │        │  the host banking sector│
│                         │        │                         │
│    Ch. 1.1.1 – 1.1.4    │        │    Ch. 1.2.1 – 1.2.3    │
└─────────────────────────┘        └─────────────────────────┘
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        ┌─────────────────────────────────────┐
        │    Integrated framework of banks'   │
        │       internationalization and      │
        │       formulation of hypotheses     │
        │                                     │
        │               Ch. 1.3               │
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│  Empirical analysis of foreign banks' entry and influence│
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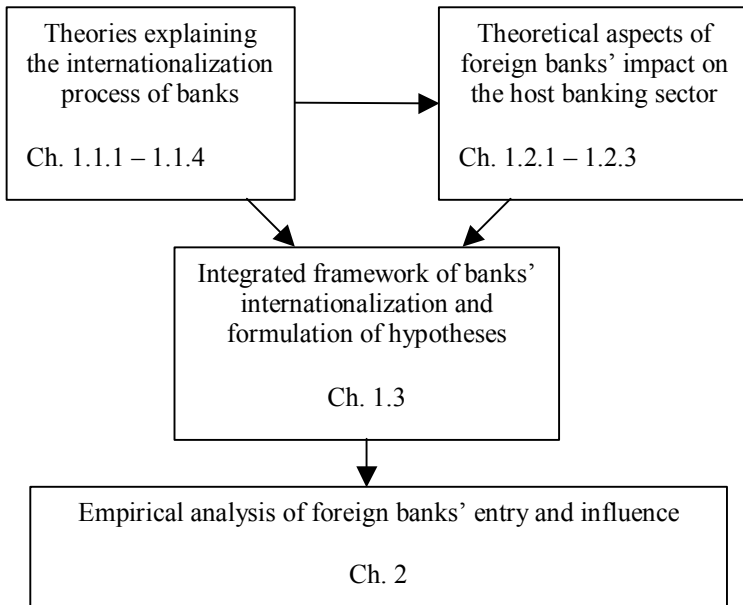
Figure 1.1. The general logic of the dissertation.

In the theoretical part of the dissertation, the general concept of the internationalization of banks and its definitions are given. Different theories of the internationalization of banks are described in Subchapter 1.1.2. Then, in Subchapter 1.1.3 the main ideas of the eclectic paradigm (OLI theory) are discussed. The applicability of the theory to the banking sector is discussed and the main critique is given. Next the main possible foreign entry strategies and entry modes of banks are analyzed. The interconnections between foreign banks' entry strategies, entry modes and entry effects are also suggested.

In Subchapter 1.2 the theoretical concepts of foreign banks' entry implications are analyzed. Subchapter 1.2.1 discusses the major possible foreign entry effects on less developed countries in general, whereas Subchapter 1.2.2 focuses on possible foreign banks' entry effects on the performance of banks in less developed countries. Contributions about the connections between banks' internationalization and banking market stability are discussed in Subchapter 1.2.3.

An integrated framework of banks' internationalization in the transition economies is developed in Chapter 1.3. The research hypotheses are developed

on the basis of the theoretical framework. Three types of hypotheses are put forward, while the total number of formulated hypotheses is 11. First, the hypotheses about the internationalization process of banks in an integrated framework are set up. The second type of hypotheses is about foreign entry effects on the performance of the host banking market, and the third type of hypotheses is about the relations between foreign banks' entry and the host banking market stability.

The second chapter focuses on the empirical research of banks' internationalization in the CEE countries. The hypotheses formulated in the first chapter are tested. Subchapter 2.1 analyses the main trends of banks' internationalization in ten CEE countries. The internationalization of banks in Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, the Slovak Republic and Slovenia is analyzed. Brief overviews of the developments in the banking market of each country and foreign banks' penetration are also provided.

In Subchapter 2.2 a survey-based qualitative study of the internationalization of banks and its implications for the CEE markets is conducted. Hypotheses about foreign entry motives, advantages of foreign banks, and technology transfer are tested. The survey is conducted among four CEE countries: Estonia, Lithuania, Poland and Romania. Some comparative evidence from Croatia is also provided.

The regression analysis of foreign banks' entry effects on the performance of host market's banks is provided in Chapter 2.3. The analysis uses different sources of data. The author has compiled a unique dataset by combining the micro-level bank balance sheet data of 319 banks from 10 CEE countries with country-specific variables. The bank balance sheet data were obtained from Bureau van Dijk's BankScope database provided by the Bank of Estonia. The country-specific data are mainly from the Transition Reports 2002–2004 published by the European Bank for Reconstruction and Development (EBRD). Some data were obtained from the International Statistics Yearbooks published by the International Monetary Fund. The banking market data were additionally collected from the publications of national central banks. The starting point of the regression analysis was the empirical model suggested by Claessens *et al* (2001) and developed further by Hermes and Lensink (2003). The Arellano-Bond dynamic panel data estimation was used to test the hypotheses.

In Subchapter 2.4 the hypotheses about the impact of foreign banks on the stability of CEE banking markets are tested. The analysis used the same dataset that was compiled for Chapter 2.3. The banking crisis periods were included as dummy variables to compare the behaviors of foreign and domestic banks during banking crises. The effects of foreign banks' entry on loan portfolio quality, credit supply, deposits growth and capitalization of CEE banking markets are analyzed.

There are some shortcomings of the data used in the analysis. The author did not have full access to the filled-in questionnaires from all the countries

observed. The author conducted the survey among the banks operating in Estonia and has the original questionnaires about the Estonian banks, but knows only average scores of answers concerning other countries. Nevertheless, the advantage of the survey is that the questions asked in different countries are exactly the same, enabling full comparisons to be drawn.

The BankScope database also has its limitations. For example, it does not cover the information about foreign banks' branches. So there is a possibility of underestimating the participation of foreign banks in some markets. The exact ownership information in the database is provided only for the last observation year of a bank. Therefore changes in ownership structures of banks cannot be traced in the database. The websites of the existing banks were used to control the history of bank ownership, but it is difficult to get relevant data for the banks that have been liquidated or merged and operate no longer.

Theoretical limitations

Below, I will concentrate on the theoretical limitations. The thesis tries to integrate the eclectic paradigm and the financial liberalization framework to explain the internationalization process of banks. This integration aims to relate the internationalization of banks and the reforms of the financial sector to discuss the entry effects of foreign banks and their implications for the transition economies. The main focus of the thesis is on analyzing the impact of foreign banks' entry. Foreign banks' entry effects on the domestic banking sector are explained mainly on the basis of the theory of foreign direct investments (FDI). Their motives for internationalization are analyzed only to confirm that entry effects depend on banks' entry strategies.

Not all theories of international banking have been included in this dissertation. For instance, the theory of internalization was left out as it focuses on transaction costs in imperfect markets and stresses the importance of bank-customer relationships in the internationalization process. The defensive approach and follow-the-client motivation have limited the ability to explain the internationalization of banks in the newly-opened banking markets. However, the customer-following motivation has been one of the important factors of foreign banks' entry. Nevertheless, the author suggests that the integration of the OLI and FL frameworks will explain better the conquer of the CEE banking markets by foreign banks.

The thesis does not explicitly research the reasons for the banking crises in the CEE countries, assuming the financial liberalization of the underdeveloped banking market to be the core reason for it.

The thesis focuses mainly on firm-level activities and does not apply general macroeconomic theories to explain the effects of foreign banks' entry. However, some conclusions about the internationalization of banks are drawn at

the level of the banking market. This might lead to misinterpretations of the results. The financial stability is covered only by bank-level factors such as capitalization, deposits and lending, while the public debt, currency risks and capital account deficits of the CEE countries are not studied.

Acknowledgements

1. THEORETICAL FOUNDATIONS FOR INTERNATIONALIZATION OF BANKS

1.1. Theories explaining the internationalization process of banks

1.1.1. The concept of internationalization of banks

Being definable in many ways, internationalization of banks has had several dissimilar meanings in different periods. Aliber (1984) suggested that there are quite a few banks that are truly international, the majority of "international" banks being merely domestic banks with branches abroad. In 1975, there were only 84 international banks defined as deposit-taking banks that had branches in five or more different countries (Aliber 1984, p. 662). Edwards (1975) defined multinational banks as ones operating in Euromarkets. Williams (1997) adopted the definition by Lewis and Davis (1987): "Multinational banking embraces both the Eurocurrency banking activities of foreign banks and their banking in host country currencies" (Willams 1997, p. 73).

Distinction has to be made between the internationalization of a single bank and of a whole banking sector of the country. Depending on the research questions, either the internationalization of a single bank or the internationalization level of the entire banking sector can be of interest.

When defining "internationalization of the banking sector", one can distinguish between inward and outward internationalization. The term "inward internationalization" is used when either foreign banking institutions settle in a place, a country or a region, or when the banking activities in that country or region are mainly expressed in foreign currencies. "Outward internationalization" can be defined as the establishment of the banking institutions of a given country in other countries (Pintjens 1994, p. 301). It is possible to calculate both sides of the internationalization of a given country, proceeding from several criteria.

1. The importance of the credit sector in the economy of a country as a whole. This can be measured by dividing the balance sheet total of the whole banking or credit sector by the gross national product of the country. This criterion is not a true indicator of internationalization, but it indicates the size of the financial sector in relation to the economy as a whole. If this rate is high, then there are comparatively few restrictions to banking on the part of the country. This measure, of course, has its shortcomings, especially in

small and open economies, such as Estonia and Belgium, as it is easier to produce the financial volume than goods and services.

2. The volume of banking claims in foreign countries. This indicator determines the market share in the world market. The shortcoming of this measure is that banking claims in foreign countries are not the only determinants of the size of international centers. Also disintermediation and securitization, which have been very important in recent years, have developed at the expense of direct credit granting.

3. The ratio of banking claims in foreign countries to the percentage of total banking claims. This ratio expresses the degree of openness of the banking sector in a given country.

4. Balance sheet structure. Here the proportion of international gross positions is considered.

5. The number of foreign banking institutions. A high number of foreign banks reflects the importance and attractiveness of a banking market. In the current dissertation, the share of foreign banks in the total number of banks is used as a measure of foreign banks' entry. This is a broad measure of banking market internationalization that does not control the size of banks' assets. Nevertheless, this measure is widely used in many empirical studies about the internationalization of banks (see Claessens *et al* 2001; Hermes and Lensink 2003; Dages *et al* 2000; Zajc 2004).

6. The share of foreign banks' assets in the total banking market assets. This is a most frequently used measure of banking market internalization, reflecting the penetration of foreign banks in a country. This measure is also used in the current dissertation as a proxy of foreign banks' entry.

All the above criteria measure inward internationalization, but outward internationalization can also be measured. The importance of the domestic banks in foreign and international financial markets reflects outward internationalization. One possible criterion of outward internationalization is the number of foreign outlets of banks (Pintjens 1994, p. 304).

Pintjens (1994) brings out four levels of the internationalization of the financial services sector. In the first place, banks act as intermediaries for international payments. This is their traditional function. The second level is attracting liabilities in foreign currencies. This is the internationalization of the liabilities side of a bank's balance sheet leading to credit granting in foreign currencies. The internationalization of the assets side of a bank's balance sheet is the third level. The last level is the provision of certain international financial services, such as participation in international bond issues and intermediation of international investments.

Internationalization of banking is also defined as "the process of expanding banking activity abroad and replacing the domestic banking business content by international content" (Taeho 1993, p. 45).

Internationalization of banks can also be defined as "the process of building controlled action units within the boundaries of other national banking systems. These action units can take, for example, the following forms: fully owned foreign subsidiaries, branch offices, representative offices, co-operation agreements or joint ventures with foreign banks, consortium banks, and participation in foreign banks" (Petterson, 1974).

In current dissertation the internationalization of banks is defined as enlargement of banks' activities into foreign markets by setting up controlled units in foreign countries. Thus in current thesis the cross-border lending is not treated as a form of internationalization but only foreign enlargement of a bank that is accomplished through foreign direct investments (FDI).

We can describe banks as four-dimensional structures. If we turn to the international business activities of banks, then the national boundaries become a critical criterion which defines the country of origin by which a bank is chartered, the host countries in which the bank's facilities are located, the countries in which the bank's customers reside, and the national currencies in which the banking products are denominated.

The dimensions of a bank are (Taeho 1993, p. 35):
1. The parent organization O_i, chartered in country i can be a bank holding company or a commercial bank. A bank holding company is a company which controls at least one bank by its share ownership or its power to elect a majority of members the members of the bank board.
2. The banking facility B_j, located in country j produces banking services. If the banking organization has facilities that produce banking services in two or more countries, it is a multinational bank.
3. The customers C_k, of banking services, residing in country k, may be classified into government units; financial institutions, non-bank business firms (local and multinational corporations); and individual households.
4. The banking products P_m, denominated in national currency m, can be classified into three categories: asset-based products, liability-based products, and fee-based products.

Thus international banking involves four dimensions: $\{O_i, B_j, C_k, P_m\}$. If at least one subscript is different from the rest, it is an international banking service. Therefore it can be said that purely domestic banking is a special case of international banking, where all the subscripts are the same (Taeho 1993, p. 36).

International banking differs from domestic banking considerably. If a bank wants to become international, it has to reckon with the international dimensions. Each dimension, if it is international, makes it more intricate to manage the bank efficiently and adds some risks, but in some points is useful as well:

1. Structure. A multinational bank has a more complicated structure. It affects personal management, product diversification and accounting problems. Nevertheless its multinational structure may enable the bank to avoid very

high-level domestic competition or some regulations which may restrict domestic activity.

2. Environment and marketing. Countries usually differ considerably from one another, including cultural, legal, welfare and other differences. Therefore it is complicated for a multinational bank to apply the best marketing strategy in different countries.

3. Market entry. There are several questions about how a domestic bank can become multinational, i.e. how a bank can run the internationalization process. This topic is also closely linked with market entry theories, and merger and acquisition techniques. Even in perfect capital markets there are still exist several regulations from monetary authorities which makes it difficult to enter new banking markets.

Nowadays the financial and banking markets are turning global. It is not easy, however, to tell the difference between the globalization and internationalization of banks.

If we define internationalization as the process of expanding banking activity abroad and replacing the domestic banking business content by international one, then globalization can be seen as the next stage. The globalization of banking can then be defined as the process in which banking services become world-wide in terms of geographical coverage and universal in terms of provision of banking services. Geographical coverage implies that there is no longer a one-way directional sense from home abroad. The universal provision of banking services presumes the harmonization of banking rules and the removal of barriers, so that all banking firms can compete in all markets. Thus internationalization can be seen as an early stage of globalization. Yet, the author suggests that banking cannot become entirely global before the globalization of customers' needs and cultures. Berger *et al* (2003) concluded based on the study of 2000 foreign affiliates in 20 European nations that banking industry may never become fully globalized. Even if all regulations are harmonized there will remain special services like loans to SME-s and relationship lending that will never be global.

Probably, for retail customers the globalization process will take a long time, as their demand for fully standardized services is quite low. So far banks must treat customers in different countries differently. This means that the expansion of one's banking activity abroad has so far been more internationalization than globalization. However, the globalization of wholesale banking tends to grow rapidly.

1.1.2. Theories explaining reasons for banks' internationalization

In order to analyze the theories explaining the internationalization of banks first the internationalization of services sector in general is discussed. Important insights into analyses of the specific aspects of the service sector inter-

nationalization were given by Erramilli (1990) and Erramilli and Rao (1990; 1993) who classified internationally traded services into two groups: soft services and hard services, which serve as useful tools in analyzing the pattern of internationalization of services. Hard services could be exported in the same manner as manufactured goods. Soft services require close contact and physical proximity of producers and consumers (trade, financial services). Firms producing soft services are typically not able to enter foreign markets by exporting first.

The theory of multinational banking was first developed by Grubel (1977) and later researchers tried to answer some of the questions posed in his paper (Aliber, 1984). This theory of international banking is based on the theory of FDI in manufacturing. According to this theory, multinational banks have some comparative advantages. Banks follow their customers abroad to better serve their domestic clients, who have gone abroad, which is called the gravitational pull effect. The internationalization of banking grows in parallel with FDI as banks try to meet multinational firms' demand for banking services abroad. Such banks' behavior of moving abroad is seen as a defensive strategy that is necessary in order to assure continued business with the domestic parents of foreign subsidiaries so that the existing flow of information resulting from the bank-client relationship will not be pre-empted by a competing bank. Additionally, multinational service banks also do some business with local and wealthy individuals by offering them specialized services and information required for trade and capital market dealings within their native countries (Paula, 2002).

A multinational bank (MNB) can exploit market imperfections (Hymer 1976) in the same ways as a non-financial corporation. The gains from multinationalism that accrue to a bank depend upon the differences among the national economies in which it operates.

Willams (1997) has contradicted two main positive theories of multinational banking – the eclectic paradigm versus internationalization theory. The essence of the eclectic paradigm was discussed in Section 1.1.2. The internalization theory of multinational banking has its origins in the Coase (1937) theory of a firm. The theory of internalization emphasizes the importance of transaction costs in imperfect markets. Market imperfection is a necessary condition for internalization. Within the internalization framework, the knowledge advantage of a firm becomes a public good within the firm (Williams 1997, p. 74). Buckley (1988) considered internalization theory to produce two implications: (1) firms will choose the lowest- cost location for any activity, and (2) firms grow via internalization up to the point where the costs of internalization equal its benefits. The application of internalization theory to banking presupposes the defensive approach of banks. The bank-customer relationships are unique and market knowledge about clients can be used at low marginal costs in internal markets. Buckley (1988) suggests that the motivations for multinational banks to grow abroad are market failures, location-specific factors and regulatory differences.

As Williams (1997) has noted there are some other theories that are the subsets of internalization theory. Comparative advantage theory is the application of Heckscher-Ohlin theory to international banking, developed by Aliber (1976). According to that theory banks with comparative advantage dominate the world market. Banks internalize their advantage through activities of foreign braches and subsidiaries (Willams 1997, p. 85).

Multinational wholesale banking theory by Grubel (1977) focuses on the activities of multinational banks in Euromarkets. Multinational banks can offer narrower interest margins spreads in Euromarkets due to lower transaction costs in wholesale markets.

Horizontal and vertical integration are also used to explain the multinational banking. Horizontal integration provides a possibility for allocation of firm-specific knowledge at different markets at lower cost. Vertical integration is considered to be both internalization and ownership advantage. Williams (1997) argues that one problem with the eclectic theory is that it fails to explain vertical and horizontal integration.

Recently, more attention has been paid to the network approach to internationalization since it was established that many firms' international activities are strongly interconnected. Swedish researchers (Mattsson, 1985, Johanson and Mattsson, 1986) have developed this approach. Yet it is impossible to talk about one stream of this theory as there are several approaches. Not least important is a more sociological approach which concentrates on the types of relationships within the network and not only on why such networks are established.

Banking between banks around the globe is shifting from a reciprocal exchange of services to becoming more of a system in which large money-center banks "wholesale" products and services to regional banks, which in turn "retail" them to customers in their markets, according to veterans in the field. "The fact that you are using someone else's network is not relevant to the customers" (Kraus 1997, p. 9).

Nordic researchers, e.g., Johanson and Wiedersheim-Paul (1975); Johanson and Vahlne 1977; 1990; and Luostarinen (1979) have revealed a gradual process of evolutionary development in the internationalization of a firm in general. Sometimes the stages theory of internationalization has been found to hold in the service sector, but several studies have shown that the model of the internationalization process is not valid for the service sector (e.g., Sharma and Johanson (1987); Buckley, Pass and Prescott (1992); Johanson and Vahlne (1990) (Hellman 1996, p. 21).

Internationalization cannot be carried out in the service sector in the same ways as in the industrial sector. On the other hand, according to Buckley, Pass and Prescott 1992, in terms of internationalization options, services do not differ significantly from goods. The potential modes tend to cluster around three categories: 1) exporting, 2) various contractual models of internationalization and 3) various investment-type modes of internationalization (Hellman 1996, p. 24). It has been argued that, because of the nature of services offered, inter-

nationalization may be more risky for a service company than for a manufacturing company. For the internationalization of the banking sector, the investment mode of internationalization is of greatest importance. Outward internationalization follows the investment mode of internationalization closely, as they both are foreign branch offices, establishing new subsidiaries and majority or minority stakes, equity joint ventures and mergers.

The internationalization of banks has been significantly influenced by structural changes in the world trade, the growth of direct investments into foreign countries, the development of military aid programs, etc. The oil crisis of 1973 was one of such macroeconomic factors. Because of the crisis, monetary resources began to accumulate in the oil-exporting countries without the purpose of exploitation, while the oil-importing countries suffered money scarcity due to the deficit in their balance of payments. The disproportion between the location and demand of money resources gave a powerful boost to the internationalization of banks, who began to set up subsidiaries in the oil states. Thus, an opportunity was given to pump money from the oil-producing countries back to the oil-importing countries.

In the last decade, the end of the cold war and the breakdown of the communist regime became especially important factors for the internationalization of banks. The Western banks hurry to conquer the emerging markets, especially the Russian market as the biggest one. The recent wave of internationalization of banks is characterized not only by following their existing clients. According to Focarelli and Pozzolo (2002), the "follow-the-clients" determinant for banking internationalization is only relevant for small banks, while the behavior of larger banks is determined by more complex diversification policies.

There are some recent works that try to establish a pattern of expansion for the recent wave of banking internationalization. One of the most common explanations is related to the effects of the increase in banking competition caused by financial deregulation (Pauli 1994; Berger *et al* 2000). As margins and fees are tightened in domestic financial markets, banks seek to expand across borders to generate higher returns. Thus, with banks' net interest margins under downward pressure due to the intensification of banking competition, and the big financial institutions having in general a low potential for growth, some banks seek to diversify geographically onto markets with a potential to grow and/or with greater net interest margins. The benefits from earnings diversification may increase bank values in several ways, since diversification may lower a bank's risks and reduce the possibility of failure (Berger *et al*. 2000).

There exists a certain amount of literature dealing with the question about whether there is a difference between the foreign market entry by production firms and service providers. The reported results are different. Terpstra and Yu (1988), and Agarwal and Ramaswami (1992) concluded that no basic differences could be outlined between production and service firms in this respect. But the shortcoming of their research was that they limited their

analysis to leasing and advertising firms. For these services, the physical closeness of the firm to its customer is not necessary. Dunning (1993) has concluded that the basic factors are similar, but the very realization of internationalization differs between production and service firms.

There are several reasons for internationalization of the banking sector. It is possible to distinguish between exogenous and endogenous incentives for the internationalization of banks. The exogenous or "market-driven" reasons are:

1) market-derived:
   - competition level;
   - interest rate imbalances;
   - conducive international banking environments (Taeho 1993, p. 46);
   - real growth of the GDP etc.;
   - increasing demand for international banking services.
2) authorities-derived:
   - banking law,
   - regulations and restrictions.

As for the tangible infrastructure, faster communication, data processing, and transportation facilities have reduced the psychological as well as real-time distance of foreign markets. This has increased the possibilities for overseas operations. Usually, the reasons for internationalization are related to either economic aspects or restrictions on banking activity (Pauli 1994, p. 17).

The endogenous reasons for internationalization show why a particular bank expands its activity abroad. There are many reasons for internationalization, and they may affect the bank behavior Besides the macroeconomic factors that rule the internationalization of banks, the ambitions of bank managers also play an important role. In the bankers' viewpoint, the motives for internationalization can be divided into four groups (Rugman, Kamath, 1987):

1. To use the potential ability of a bank more completely. For example, the domestic management and sales skills may enable banks to offer services abroad at lower costs. It also enables the local companies' subsidiaries abroad to use competent information about the possibilities and conditions in the mother country.
2. To use the reputation of a parent bank. The subsidiaries set up abroad may get competitive advantages for, as a rule, an international bank is considered more reliable than the local banks[3].

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[3] The opinion poll conducted in the Estonian companies in the period 1994–2000 showed that when choosing a bank, the trustworthiness of the bank was the first-order criterion for 29.9%, second-order criterion for 16.1% and third-order criterion for 16.7% of the companies (Aarma and Vensel, 2002).

3. To reduce banking regulations. In many cases, the main purpose of setting up subsidiaries and branches abroad is to overcome the restrictions on moving capital abroad.
4. To reduce risks. As the economic situation, legislation, political situation and other circumstances may change, being present in the country will enable the bank to recognize the risks in time and take necessary countermeasures.
5. The special bank-customer relationship. If a bank follows its major customers abroad (the follow-the-customer hypothesis (Grubel, 1977)), then it already knows whom it is going to serve, and that gives considerable advantages (Taeho 1993, p. 42).

The most common reason for internationalization is following the customer. Growing globalization makes more and more enterprises act on international markets. Banks try to keep their main big customers by following them onto international markets. By such internationalization banks are unlikely to lose their customers, as they know their demands better than foreign banks. At the same time, they may gain new customers abroad and their risks are lower as they already have some big clients abroad.

Although we can name several important reasons for internationalization, all the motivations are very bank-specific, some incentives being more important for one bank and some for another.

We can see that the most important reason for internationalization is the need to gain new knowledge and competence. This is in line with the Uppsala model designed by Johanson and Vahlne in 1977. The indicator "higher profits" was an inadequate reason for going abroad. However, no single reason was sufficient to explain why firms went abroad (Majkgård, 1998, p. 10, 28).

In many developing countries, there often exists a discrepancy in the stages of development between the real sector, which demands a certain level and type of banking services, and the backward financial sector, which is lagging behind and is unable to fulfil that demand. This is currently also the case with the Eastern European economies. Such a gap creates an opportunity for foreign banks to step in. At present, powerful international banks find it beneficial to go into the CEE countries, as they have a remarkable competitive advantage over the under-developed domestic banks there.

There may also occur shareholder-driven internationalization (Taeho 1993, p. 48). If a bank's shareholders have diversified their assets portfolio themselves to eliminate unsystematic risks, then they will find little value in the lower variability achieved by the bank. But if they find it to be too costly or otherwise difficult to diversify their portfolio, then the bank may be forced to diversify its portfolio internationally. The desire of a bank's shareholders to diversify their portfolio may become a cause of the globalization of banking.

Especially in small countries, one motivation for internationalization is the size and structure of the domestic market. In small countries, such as Estonia, there is not enough room even for one considerably big bank. A high level of

competition on the home market will push down the mark-ups and force the banks to enter new markets to compensate for those losses.

1.1.3. The OLI paradigm explaining internationalization of banks

There are many theories which try to explain why firms start to internationalize. Although there is a growing body of literature on FDI, there is no comprehensive approach yet that would explain all different types of FDI. In line with the objectives of the analysis, I found that the most relevant theories are the ones which explain why banks at a certain stage of development start investing abroad, how it is executed and what implications the development of such activities has for the host market.

The most general theoretical framework is Dunning's eclectic paradigm, or the OLI theory (Dunning 1973, 1981, 1993). The OLI paradigm explains the FDI decision to be affected by three factors – ownership (O), location (L) and internalization (I) (see Figure 1.2). It explains the reasons why firms decide to start investing abroad, what the preconditions (firm-specific advantages) are, where they invest (where are the location advantages complementing their ownership-specific advantages available), and why they select FDI out of many forms of foreign market entry (maximization of their rents). The important aspect of the OLI theory is that the location and ownership advantages are a necessary but insufficient condition for FDI. They should be complemented by internalization, which helps to take advantage of such conditions.

Dunning (1988) suggests that the three main types of international production, namely, market seeking, resource seeking and efficiency seeking can be explained by the endowment/efficiency paradigm. As for market seeking, the ownership advantage (O_a – asset advantages or O_t – transaction advantages) that can be exploited in the host country to get access to some specific market or resource defines the investment location. The market failure affects the location and internalization by risk distribution, several kinds of market entry barriers and the oligopolistic market structure. The resource-seeking motivation of FDI considers market size and other characteristics at home and in the host country to get access to production resources. The efficiency-seeking argument of FDI looks at economies of scale and scope, risk reduction through product diversification, and taxation.

In Dunning (1994) another FDI motivation is added – strategic asset seeking. Strategic asset seeking is a motivation for sequential FDI. The aim of the strategic asset seeking investment is to acquire resources that are important to enhance the capabilities and advantages of an investor. It is complex integration of strategies that are to seek markets where the corporation's general objectives can be best performed.

Yannopoulus (1983) applied an eclectic paradigm to the banking sector, suggesting that multinational banks have locational advantages which may include follow-the-client, country-specific regulations, and entry restrictions.

Ownership advantages can be, for example, easy access to vehicle currency. Internalization advantages can be informational advantages and access to local deposit bases.

Ownership advantages are crucial in the eclectic framework, as it is the possession of these advantages that allows the foreign bank to overcome the advantages enjoyed by the domestic banks due to incumbency (Williams 1997, p. 81).
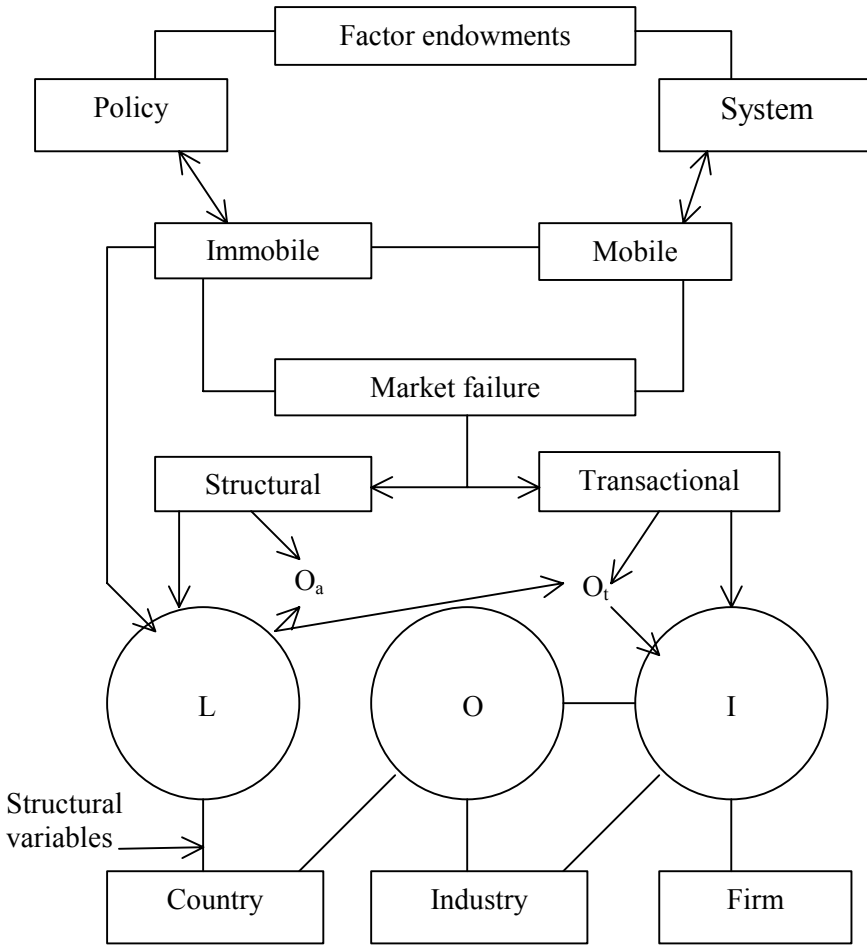
Figure 1.2. The endowment/market failure paradigm of international production (Dunning 1988, p. 12).

The eclectic theory is influenced by Hymer-Kindleberger's (HK) theory and Vernon's product-cycle. Hymer-Kindleberger's (HK) theory attempts to determine the advantages a foreign-owned firm has over the domestic ones. As suggested by Kindleberger (1969), these advantages include ownership of a brand name, possession of marketing skills, technology, patents, lower costs,

managerial skills and economies of scale. The product cycle theory of Vernon (1966, 1971) first assumed that tastes differ with income, and that communication costs within the firm, as well as between the firm and the market, are significant and will increase with distance. There are also predictable changes in product technology and the product marketing methods. Finally, an imperfect market for technical knowledge is assumed (Williams 1997, p. 92–95).

Based on an eclectic approach, a broader theory, investment development path paradigm (IDP) was developed, which combines both micro- and macro-approaches. It explains why countries at a lower stage of development first host FDI, and why and when they start investing abroad. One approach to IDP is the dynamic paradigm proposed by Ozawa on the basis of Japanese experiences (1992). Inward and outward FDI are regarded as development catalysts. Ozawa claims that firms from a country which starts losing comparative advantages, e.g. by the growth of wages, it starts to invest abroad in order to retain its competitiveness by taking advantage of low wages abroad. The dynamic paradigm is very similar to the IDP model. This theory has been used in working out relocation models explaining the behavior of multinationals.

Bellak (2004) analyzed the performance differences of multinational and domestic firms to test the validity of firm specific advantages. Bellak concludes that after controlling for firm and industry characteristics, the multinationality *per se* explains better performance of foreign owned firms.

The Nordic or sequential internationalization model (Luostarinen, 1970, Johanson and Vahlne, 1977, Johanson and Wiedersheim, 1975) is mainly descriptive. Originally it looked only at which firms start to invest abroad, and in which forms they enter the foreign market. Partly it answers the question why internationalization takes place in certain activities earlier than in others and where such internationalization happens. The basic idea is that internationalization follows stages, that firms start internationalization by less demanding simple activities (export) and their sales functions, and only later through accumulated experiences enter more sophisticated forms of activities, and in more distant countries. Firstly, they internationalize mostly in neighboring countries, countries with similar cultures and in simple products and activities. Only later more sophisticated products and forms of internationalization are started.

The first activity to be internationalized was the marketing function and the last one is the production function. Later, in the 1990s, this model also started to include the inward dimension (Luostarinen, 1994).

Resource-based and evolutionary theories (Cantwell, 1989, 1994, Kogut and Zander, 1993) are based on the capabilities of firms. And last but not least, sequential internationalization models (Luostarinen 1970, Johanson and Vahlne 1977, Johanson and Wiedersheim 1975) having their earlier roots in the theory of the firm, explain some FDI, although it may be said that the eclectic or OLI paradigm already incorporated a capabilities perspective, as Dunning (1993; 95) acknowledges. The basic postulation of resource-based theories is that the

accumulation of a firm's specific advantages is a cumulative process and it is therefore important to differentiate between the public and tacit components of technology. So, in addition to banking technology, general knowledge about banking markets and clients is important.

Although the eclectic paradigm is widely applied into different industries, there has been also a lot of critique to Dunning's OLI paradigm. OLI theory combines different earlier theories of internationalization. In critical assessment of eclectic theory (Itaki 1991) argues that there is no need to stress ownership advantages to explain international activities of multinational corporations as they are already captured in internalization theory. Another critique to eclectic theory is the lack of causality between variables described in it. Williams (1997, p. 83) argues that it is incorrect to assume that multinational bank needs owner-ship advantage compared with domestic banks. Williams suggests that internali-zation alone is enough to cover ownership advantages. He also argues that based on eclectic theory it is not possible to set up testable hypotheses.

1.1.4. Foreign entry strategies and modes

There is a body of literature about the choice of foreign bank entry mode, but there is quite little knowledge about effects of entry mode on the performance of a bank in developing countries. The mode of entry affects the operations of a bank abroad and therefore banks have to carefully consider what is the strategy and future goals while entering a new market. Because of different performance and technology level of domestic and foreign banks in less developed markets an important choice to be make is between de novo investment and acquisition of a domestic bank (Clarke *et al* 2001). There are various modes of entry that a bank may choose to adopt. The main entry modes are:
1) representative offices
2) branches,
3) affiliates or associates,
4) subsidiaries.

A representative office is a legal unit that can give financial advice and may be an intermediary between the mother bank and local customers to intensify the communication between local firms and the mother bank. It is not entitled to offer classical retail banking services, such as collecting deposits and lending. International banks choose this mode of entry, when, for instance, other entry modes are not allowed or additional market screening is required before real market entry. The advantage of representative offices is that they enable the presence at host country at very low investments, the disadvantage being that representative offices have no legal right to offer the full range of banking services and are thus unsuitable if a bank wants to gain a market share in the host country.

A branch is an integral part of the parent. Branches are entitled to offer a full range of banking services. Foreign branches follow their home countries' laws and banking regulations. As branches operate on the basis of their parent's capital base, they can give much bigger loans than any subsidiary of the same size. That is the reason why branches are often used for wholesale and corporate banking. One advantage of a branch is that it shares the credit rating of its parent, which gives it a comparative advantage over local banks at borrowing, deposit collecting and trading. (Tschoegl 2003, p. 13) In transition markets where the trust for local banks is comparatively low and deposit insurance funds offer very low deposit recovery for customers, branches have an important competitive edge because they are usually parts of big and trustable international banks and their deposit insurance is higher, as they follow their home country regulations. Being a part of the parent bank, a branch requires careful supervision as unauthorized trading at a branch could bankrupt the parent.

Branches are also comparatively easier to establish, because they follow their home country regulations and are fully controlled by their parent's financial policy. Branches are not suitable for entry when their mother bank wants to avoid restrictive home country regulations.

An affiliate is an independent legal entity that operates locally. Affiliates or associates are strategic shareholdings, in which a foreign bank has less than majority ownership. Usually the name of such banks is kept local, because the foreign bank has only minority ownership and is therefore not willing to take the risk of losing reputation if this bank has financial difficulties because of some mistakes made by the local management. Nevertheless, an affiliate is used very often to enter transition markets. Foreign banks often begin with minority ownership in local banks and then increase their ownership step-by-step. It is common for foreign banks to buy minority ownership in local banks during crises when share prices are low. Nordic banks used this mode of entry in the Baltic states at the end of the 90s. Affiliates are good for market monitoring, often foreign banks increase their share into full ownership after some information gathering.

Subsidiaries are independent legal entities, in which a foreign bank has at least majority ownership and often full ownership. Subsidiaries operate on the basis of their own capital and are fully regulated by local supervisory authorities. Foreign banks can start a subsidiary in different ways. It may begin from minority ownership in a local bank, which afterwards becomes a fully owned subsidiary. A foreign bank can establish a subsidiary also by greenfield investment. Banks have different strategies to run subsidiaries. Local staff is often used for better integration in the local conditions, because the local personnel has better knowledge of the customers and business conditions. At the same time, some foreign banks run their subsidiaries centrally, giving them very little independence. This is often used, when a bank enters by acquiring a local bank

during a crisis and there is a need for quick recapitalization and a reorganised assets portfolio.

Central control is also important when the parent bank wants to use its knowledge and standards to transfer know-how (i. e. new risk management policy) into a subsidiary.

The choice of foreign entry mode depends on the bank's strategy and goals. According to Tschoegl (2003), on the basis of their strategies in the host countries, foreign banks can be classified into two groups: *traditionals and innovators*. Traditionals usually operate as branches, offering classical international banking services, such as trade financing, trade payments, forex trading, lending to big corporations, etc. They usually do not engage in retail banking.

Innovators, on the other hand, are innovative in two non-exclusive ways: frequently their responses to the new opportunities represent behaviors that are new to the banks themselves, and their responses are to bring governance, methods, and products that are new, or at least scarce at the markets that they enter. They also bring capital, but this is in many ways their least important function. Innovators come in three varieties: bettors, prospectors, and restructurers (Tschoegl 2003, p. 4).

Bettors are often development banks, private equity firms or investment banks or individuals betting on the success of transition. They invest in transition markets. Some examples: the International Financial Corporation, the European Bank for Reconstruction and Development. A bettor's interests are purely financial. Bettors do not manage the banks in which they invest. They usually invest together with a strategic investor, either domestic or foreign.

Prospectors are foreign banks that usually have a little internationalization knowledge and want to expand into new countries. They use the entry opportunity during crises or changes in regulation. They usually buy a minority share first, and if the investment looks promising, then invest further. If the investment is not successful, then they sell their shares and move on to new projects. Their strategy can be illustrated by the gold mining model of Moffett *et al* (1989), where a gold miner establishes an exploratory shaft into a promising area, and if successful, keeps following the gold-ore. If unsuccessful, he moves on to a new exploratory shaft. Many prospectors start *de novo* ventures, because they have very concrete strategies. Examples would include the Porsche Bank and Opel Bank in Hungary, both of which specialize in consumer finance, especially the purchase of their owners' cars. (Tschoegl 2003, p. 6)

The last type is *restructurers*. They acquire a large bank by privatization or during a crisis and start fixing it. This kind of investment is long-term and a part of a big enlargement strategy in transition countries. A good example of restructurers is the Nordic banks in the Baltic States. For example, Swedish banks entered the Estonian market intensively in 1998 during the banking crisis, and started to recover large local banks. Afterwards, those banks have also entered Latvia and Lithuania, where they similarly brought significant stability by restructuring the big local banks.

There are some claims that innovators lose their competitive advantage to local banks, as local banks adopt similar technologies and foreign banks are forced to sell their ownership to local banks. This phenomenon is explained by the ecological succession model by Koford and Tschoegl 2002 who suggest that ecological succession is a dynamic model that posits that the first plants to arrive in disturbed or clear soil will stabilize the soil and change light conditions, creating opportunities for successor species. This in turn provides opportunities for yet other species. The mix of plant and animal species continues to evolve until the system reaches the final steady state of a climax forest. Therefore Tschoegl 2003 suggests that in the long run, foreign banks will lose their competitive edge.

Following the logic of Tschoegl 2003, the fourth type of foreign banks can be seen in CEE markets. Those are banks that already have internationalization competence and knowledge. It is likely that they are making greenfield investments as they are quite self confident. Those are banks that have internationalization experience and they accept risks in emerging markets to expand their activities. I would call them "conquerors". Finnish bank Nordea is a good sample of conquerors in CEE.

Internationalization strategies

The literature on international banking discusses three main strategies of internationalization of banks: the customer-following strategy, the market-seeking strategy and the follow-the-leader strategy (Hellman 1996, p. 29).

The customer-following strategy was already mentioned by Aliber 1984, who explained customer-following as a competitive advantage that a bank may achieve if it follows its existing clients abroad. The rationale for this behaviour is that the bank would otherwise lose its clients to host-country banks. This approach is also known as the defensive expansion approach used by Grubel (1977) and Williams (2002). The customer-following strategy is one way to explain why a foreign bank chooses a particular host-country for entry. International banking theory relies heavily on the theory of direct foreign investments (Aliber 1984, p. 665). The customer-following motivation can also be seen as a pull factor of the host country: if a proportionally large share of a bank's business customers enter a particular foreign market, then it may be profitable for that bank to enter the same market. The customer-following strategy ensures to some extent some client base to a bank, as it serves its existing customers. This may be important for early foreign operations of a bank as in the beginning it does not have its own clients yet.

The customer-following strategy is often used by financial institutions. For example, Swedish banks entered the Estonian banking market by the customer-following strategy (Uiboupin 2001). One of the methodological questions is how to measure customer following. In several papers the authors have used FDI from the banks' home country to the host-country's non-financial sector as

a proxy for customer entry (Miller and Parkhe 1998). Bank customer internationalization is also measured as bilateral trade between the home and host country.

However, recent literature on foreign banks' entry into the emerging markets shows that the banks' entry is much more aggressive than defensive approach or customer-following motivation. Often foreign banks acquire the local banks and their market share (Bonin and Ábel 2000, p. 8) − this phenomenon will be discussed in the next section.

The market-seeking strategy

The market-seeking strategy implies that a bank finds it useful to enter new markets for some reasons. The market-seeking strategy can be compared with the prospectors mentioned by Tschoegl 2003. It is an expansionist strategy. The host-country-specific factors are especially important in market seeking. Basically it means that a bank seeks for new attractive markets to enlarge. It has been argued that the market-seeking strategy is more risky than the customer-following strategy (Erramilli and Rao 1990). Market-seekers are usually big international banks that similarly to prospectors move onto other markets if the entry to a particular host-country turns out to be unsuccessful. Therefore market-seekers have to be able to cover the losses of unsuccessful entry. Nevertheless, market seeking has been a major strategy for foreign banks in many transition countries. The transition countries are attractive to market seekers because of comparatively higher returns, less developed local banks, and a high growth potential. Market seekers are often seen as leaders of international business. Bonin *et al* 1998 suggest that foreign banks' entry may also increase foreign direct investments into the non-banking sector, because big multinational corporations see the presence of international banks in the host country as one positive host-country factor.

The follow-the-leader strategy

Banking markets often have an oligopolistic structure. Therefore a foreign entry decision is sometimes a reaction to one's competitor's activities (Engwall and Wallenstål 1989). In case of the follow-the-leader strategy, a bank decides to enter a foreign market if its competitor has entered it just before. The reason for following the leader is that the bank does not want to lose its competitive position and market share. The banks following each other are usually comparable by size and market share, as it would be very risky for substantially smaller banks to follow other banks abroad. Smaller banks are more sensitive to possible losses as their foreign market and financial capacities are much lower by comparison with big banks. Engwall and Wallenstål 1989 tested the entry strategies of Swedish banks, concluding that the main strategy of Swedish banks in the 1980s was the leader- following strategy.

Li and Guisinger (1992) have found that the customer-following strategy is more important in the early stages of internationalization, whereas afterwards its importance may decline. The strategy that a bank can use depends also on the internationalization level of its customers, see Figure 1.3.

Level of home country clients'
internationalization

	Low	High
Low	Market seeker	Customer follower or leader follower
Internationalization level of a bank		Market seeker, customer follower or leader follower
High	Market seeker	
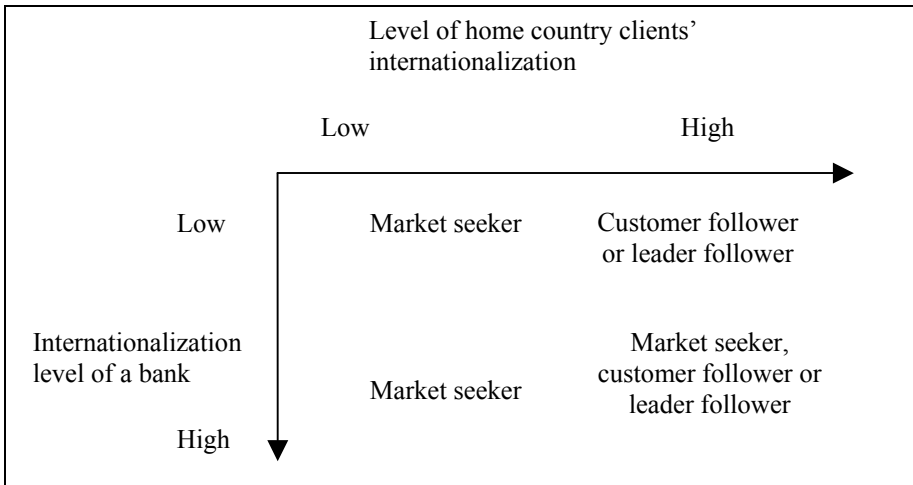
Figure 1.3. Internationalization strategies in the banking sector (Hellman 1996, p. 29).

According to Figure 1.3, banks use the customer-following strategy when their customers' level of internationalization is high. The banks themselves may have a low or high level of internationalization. If the internationalization levels of both the bank and its customers are high, then the bank may choose between all three strategies. The market-seeking strategies do not exclude each other; different strategies can be used together. It is very common that a bank's decision to enter a market is affected by many different entry factors.

Another very important aspect of foreign entry is the timing of one's market entry. Buckley and Casson (1981) concluded in their theoretical framework that the timing depends on many cost and demand factors and therefore it is difficult to find the optimal time of market entry for all cases. Nevertheless, their model of timing the FDI decision is universal for use in different industries and is also applicable in the banking sector.

1.2. The impact of foreign banks' entry
on the host's banking sector

1.2.1. The benefits and hazards of foreign banks' entry
for the local banking markets

The academic research about the role of foreign banks in transition economies is an ongoing process with a very short history. The majority of the earlier studies about foreign banks' entry effects in transition economies conducted within ten years have found the entry of foreign banks to have mainly a positive impact on less developed countries, but in some cases there also adverse effects have been pointed out. The research about foreign banks' activities is more focused on the larger CEE countries, such as the Czech Republic, Poland and Hungary, the activities of foreign banks in the other CEE countries having been less analyzed.

The studies of foreign banks' entry effects in transition economies lack a comprehensive and generally accepted theoretical grounding. The current dissertation applies the financial liberalization (FL) framework and the theory of foreign direct investments to explain the possible impact of foreign banks' entry on their hosts' banking sector. The theory of financial liberalization was introduced in the influential works by McKinnon (1973) and Shaw (1973). The integration of the FL framework with the OLI theory and the theory of FDI is introduced in Section 1.3 of the dissertation.

The studies about the effects of foreign banks' entry can be grouped according to their focus: the performance and efficiency of domestic and foreign banks; the stability of the financial system; competition; change of banks' activities; role in the development of the financial infrastructure; cross-border mergers and acquisitions; the convergence and integration of recent EU members with developed EU member states. In the current dissertation the main focus is on the impact of foreign banks on the performance and stability of the local banking sector.

In the current thesis, the main focus is on the effects of foreign banks' entry on the host banking sector. As the entry of foreign banks includes FDI inflow into the host banking sector, FDI literature will next be discussed to explain the impact of foreign banks' entry on the banking sectors of the CEE countries. Theorists who discuss the impact of FDI underscore the importance of inter-industry and intra-industry spillover effects. The extent of intra-industry spillover effects of FDI on technology transfer depend on a particular local firm's own ability to innovate and imitate (Glass and Saggi, 1998; Petit and Sanna-Randaccio 2000). Technology diffusion with FDI is rather a complicated topic. Teece (1977) pointed out several channels for technology run to domestic firms, namely labor flow from foreign to domestic firms, imitation and liberalization (removal of entry barriers to foreign firms).

It is also suggested that spill-over effects of foreign entry depend on how much the domestic and foreign banking market differ by their levels of development. This phenomenon is known as the "technology gap hypothesis" which suggests that the spillover effects from FDI to domestic firms will occur only if the technology gap is not overly large and if the country has a minimum required level of human capital (Borensztein *et al* 1998; Kokko 1994; Konings, 1999). An overly large technology gap between the foreign enterprise and domestic firm will lead to the dominance of competition effects. Aitken and Harrison (1999) showed that the productivity of domestic firms was negatively affected by FDI in Venezuela, where the competition effect slightly dominated. The reason was that foreign firms were "market stealers" who forced the domestic firms to produce less, which lead to an increase in the average cost. The technology gap hypothesis in the CEE banking sectors is also discussed in Sections 2.2. and 2.3 of the dissertation.

Besides the quantity of knowledge transfer, it is important to consider the level of quality of the knowledge transfer. Glass and Saggi (1998) found in their general equilibrium model that host countries with a higher technology gap receive lower technological quality with FDI. The capability to imitate and accept technology transfer is known as "absorptive capacity". Countries that are able to imitate more and have a more intensive level of local research and development (R&D) receive more high-quality technological FDI. Therefore their conclusion about policy is that host countries should enhance the imitation by supporting local R&D to receive high-quality FDI. Glass and Saggi (2002) found on the example of the oligopoly model that if a host firm (country) has a lower technological level than the source firm (country), then there are at least two rationales for attracting FDI: higher profits of the host firm or a wage premium benefiting workers.

The application of FDI literature into banking sector would mean that the transfer of know-how from parent bank to a subsidiary has both competition and spillover effects on host banking sector (see Figure 1.4). Foreign subsidiary that operates more effectively due to more modern banking technology taken over from mother banks forces other. There could also be spillover effects – domestic banks can learn from foreign banks. Thus the competition effect can work in two ways: either domestic banks have high absorptive capacity and become more effective (catch-up effect), or if the technology gap is too high then domestic banks are unable to compete with foreign banks and foreign banks will just easily increase their market shares (market-stealing effect). The technology transfer and local firms' reaction to foreign banks' entry therefore depend on the development of the financial sector.
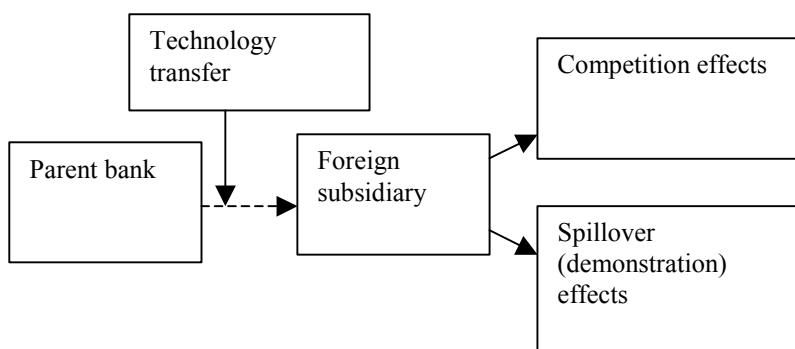
Figure 1.4. Effect of technology transfer on the local banking sector. (Compiled by the author).

There a several studies that analyze the effect of foreign banks' entry on the banking markets of transition economies. However, more intensive empirical research has only been undertaken in the 21st century. The studies in the 1990s were mainly descriptive or comparative (see Bonin *et al* (1998); Konopielko (1999); Metcalfe (1999); Kraft and Galac (2000)).

Bonin *et al*. (1998) brings out the following expected benefits and hazards from the entry of foreign banks to transition countries (see also Goldberg *et al* 2000; Doukas *et al* 1998). The main expected benefits include:

- Introduction of new banking technology and financial innovations (for foreign banks it is relatively easy to introduce new products and services to the local market).
- Possible economies of scale and scope (foreign banks can help encourage the consolidation of the banking system, they have knowledge and experience of other financial activities: insurance, brokerage and portfolio management services).
- Improvement of the competitive environment (foreign banks spell potential competition to local banks).
- Development of financial markets (foreign banks entry may help deepen the inter-bank market and attract business from customers that would otherwise have gone to foreign banks in other countries).
- Improvement of the financial system's infrastructure (transfer of good banking practice and know-how, accounting, transparency, financial regulation, supervision and supervisory skills).
- Attracting foreign direct investments (the presence of foreign banks may increase the amount of funding available to domestic projects by facilitating capital inflows, and diversifying the capital and funding basis).

There are also several considerations why foreign banks' entry may have an adverse influence on the banking sector in transition. The main arguments against foreign banks' entry are (see also Anderson and Chantal 1998, p. 65):

- Fear of foreign control (control over the allocation of credit implies substantial economic power in any economy).
- Banking as an infant and special industry (this argument is a version of the general infant industry argument and banks are subject to various types of special protection due to their central role in the economy).
- Foreign banks may have different objectives (foreign banks may be interested only in promoting exports from the home country, or in supporting projects undertaken by home country firms).
- Regulatory differences (supervisors of the host country lose regulatory control and if the home country has weak bank supervision, this may lead to unsound banking in the host country).

Konopielko (1999) concluded on the basis of postal survey conducted in the Czech Republic, Poland and Hungary that the direct benefits from entry are limited, and the indirect effects are mainly in the areas of corporate finances and foreign trade services. Kraft and Galac (2000) conducted a survey among 40 Croatian banks to test the effects of foreign entry mentioned above by Bonin *et al* 1998, concluding that it is hard to assess the spillover effects of good banking practice, but all the other positive effects mentioned by Bonin *et al* (1998) are present in Croatia. The negative effects are reported to be very mild, the only negative impact on domestic banks being some evidence of skilled labor flow from domestic to foreign banks (Kraft and Galac 2000, p. 31).

Cárdenas *et al* (2002, p. 23) bring forth the following aspect of foreign banks' entry: foreign banks' entry leads to gains in the efficiency of the domestic market from new technologies, products and management techniques. Foreign banks may also stimulate competition on the local market.. A study based on the Mexican market also showed that foreign banks' entry may be associated with higher market concentration.

Goldberg *et al*. (2000, p. 2) suggest that foreign banks' presence increases credit growth at lower volatility. Nevertheless, they concluded, on the example of Mexico and Argentina, that a bank's health, not ownership per se, is an important factor of the growth, volatility and cyclicality of bank credit.

There are growing experiences of empirical studies to suggest that the overall economic development of a country is a positive function of the development of its financial sector, especially the banking system. Recent studies have shown that countries with well-developed financial institutions tend to experience more rapid rates of growth of real GDP per capita (Levine, 1997; Levine and Zervos, 1998; Rajan and Zingales, 1998).

Lewis and Davis (1982) discuss three main economic functions of multinational banks. First, multinational banks mismatch assets and liabilities

across currencies. The currency preferences of borrowers are not necessarily identical to those of savers, and multinational banks resolve these preferences. Second, multinational banks transform preferences across borders. Another function of foreign banks is to transform the maturity of deposits into the preferred maturity of borrowers. This is a core function of banks, and of most financial institutions (Williams 2002, p. 130).

1.2.2. The effect of foreign banks on the performance of the domestic banking sector

Among the key issues in the development of the banking market in transition countries are the success of banking reforms, and the efficiency and overall performance of the market. An essential question for both policy makers and academics is the effect of rapid foreign banks' entry on the performance and efficiency of the domestic market.

The FDI theory suggests that the competition effect to the performance of domestic banking sector depends on the technology gap between foreign and domestic banks. If the technology gap is moderate and there is sufficient human capital level in the banking sector then domestic banks can catch-up foreign banks by increasing efficiency. Otherwise foreign banks "steal" the market from domestic banks and foreign banks' entry affects negatively the performance of domestic banks.

The effect of foreign banks' entry on net interest margin and profitability was analyzed by Demirgüç-Kunt and Huizinga (1999), who showed that foreign banks have lower margins and profitability in developing countries, while the opposite holds in developed countries. Bank-level data from 80 countries were used.

Drakos (2003) analysed the success of the reforms of the financial sector and the effect of foreign banks' entry on net interest margins. Drakos used panel data from 283 banks in 10 CEE countries. The conclusion of the research was that the banking sector reforms have been successful as the margins of banks are falling. Foreign banks' entry is associated with higher efficiency of the banking sector, at least to some extent (Drakos 2003, p. 315).

It is argued that liberalization will significantly affect the degree of cross-border competition in the integrated banking sector performance and efficiency (see Claessens *et al*., 2001; Gual, 1999; De Brandt and Davis, 2000; Hasan *et al*., 2000; Berger *et al*., 2000).

Levine (2001) analyzed the relationship between financial liberalization, and the efficiency of banking, finding that if greater foreign banks' presence is allowed, it will enhance the efficiency of the domestic banking system, decreasing the overhead costs and profits of banks. Levine (2003) analyzes the impact of denying foreign banks' entry on bank interest margins. In that paper, Levine measures the effect of foreign banks' access to the market rather than the degree

of foreign banks' participation. He also controls for the denial of domestic bank entry, to make sure that the barriers to entry are specifically against foreign banks. Otherwise the restrictions to foreign banks' entry would just be a proxy for general entry barriers. The study covers a dataset of 1165 banks across 47 countries, controlling for bank-specific and country-specific factors. He concludes that when a country tends to establish barriers to foreign banks' entry, bank interest margins will increase. The instrumental variables are also used to test the robustness of the results, since the entry of a foreign bank may also be determined by the margins. The analysis shows that the regulation of foreign banks' entry is highly correlated with the institutional characteristics. This exercise confirms the previous finding that foreign banks' entry will increase the degree of competition of the domestic market and reduce bank interest margins.

The most comprehensive empirical study of the effect of foreign banks' entry on bank performance was carried out by Claessens *et al* (2001) as an extension of the research by Demirgüç-Kunt and Huizinga (1999) based on the same dataset. They investigated the relationship between foreign banks' entry and the performance of the domestic banking sector in 80 countries. They used panel estimations with 7900 bank observations for 1988–1995. The main result of the study was that foreign banks tend to have higher profits than domestic banks in developing countries, while in developed countries foreign banks are less profitable than domestic banks. Their results also indicated that higher foreign banks' presence is related with lower profitability, costs and margins of domestic banks. The general conclusion was that foreign banks' entry was associated with competition in local markets. The author finds it useful to apply a similar model of Claessens *et al* (2001) to analyze the effect of foreign banks' entry on the performance of the host's banking market in the CEE countries. The empirical study is carried out in Chapter 2.3 of the current dissertation.

Hermes and Lensink (2003) developed the model used by Claessens *et al* (2001) further, using bank-level accounting data from 990 banks in 48 countries for 1990–1996. Threshold estimations were used to study how foreign banks' entry effects are related to the countries' economic development in a short-term. The results indicate that at a lower level of economic development, foreign banks' entry is associated with higher costs and margins for domestic banks. At a higher level of economic development, their entry has a less significant effect on domestic banks' profitability. This result lends additional support to the technology gap hypothesis.

Zajc (2004) analyzed the effect of foreign banks' entry on domestic banks in the Czech Republic, Estonia, Hungary, Poland, Slovakia and Slovenia for 1995–2000. The results of the study are somewhat different from those obtained by Claessens *et al* 2001. He found that foreign banks' entry is associated with lower non-interest income, but increases overhead expenses.

Levine (2003) tested how foreign entry barriers affect the net interest margin of the banking market on the sample of 47 countries, concluding that

impediments to foreign banks' entry have a positive impact on bank interest margins. This result indicates that barriers to foreign banks' entry can reduce the competitiveness of the local banking market.

Berger *et al* (1999) analyzed cross-border banking efficiency in five developed countries[4]. They tested two hypotheses: the home field advantage hypothesis and the global advantage hypothesis. The home field hypothesis presumes that the efficiency of domestic banks is higher. Domestic banks perform better because they possess better knowledge of local business and customers, have had a long-term relationship with their customers and experience no cultural or language problems that are common for foreign banks.

Bonin *et al* (2004, p. 29) concluded in the study based on 11 transition countries that foreign banks have higher cost-efficiency but not profit-efficiency compared with domestic ones. They also found that foreign banks collect proportionally more deposits and give more loans for their size than domestic banks.

Berger *et al* (1999) investigated cross-border financial globalization and integration. They also analyzed the performance of domestic and foreign banks in developed countries. They used the global advantage hypothesis and the home field hypothesis to explain differences in the performance of foreign and domestic banks. The global advantage hypothesis means that international banks may become more effective, because they have better international risk allocation and therefore can achieve higher efficiency; they also have better access to international capital markets (Berger *et al* 1999, p. 5–7). The general conclusion of the research is that domestic banks are more efficient and the home field advantage hypothesis holds. They also concluded that on non-aggregated level some foreign banks in the US perform better than the local banks. This supports the limited global advantage hypothesis, which says that in some favorable market conditions foreign banks can be more efficient. This result is consistent with Claessens *et al* (2001), Chang *et al* (1998) and Peek *et al* (1999).

In developed countries, foreign banks are generally less efficient than domestic banks, but in developing countries foreign banks are more efficient than locals. Therefore it can be argued that foreign banks in transition countries can perform better and their entry is associated with better performance of the host country banking market at an aggregated level. The author suggests that in the CEE countries, the global advantage hypothesis is likely to hold. Although foreign banks are less familiar with the local business clientele, their habits and overall conditions, they have generally better management techniques at all levels of bank management. Foreign banks also have better access to capital markets that enables them to be more effective.

Sturm and Willams (2004) found some support to the limited global advantage hypothesis. They used the data envelope analysis, stochastic frontier

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[4] Countries in the sample were: France, Germany, Spain, UK, and US.

analysis and Malmquist Indices to estimate the efficiency of banks in Australia. They found foreign banks to be more efficient than domestic banks but this did not result in these foreign banks' higher profits. Willams (2003) found some evidence that foreign banks' entry has to some extent contributed to competition at the Australian market, but this result holds only for the wholesale market.

Hasan and Marton (2003) analyzed the inefficiency of domestic and foreign-owned banks in Hungary, concluding that foreign-owned banks and even banks with minority ownership were significantly less inefficient than domestic banks. The inefficiency was negatively related to the share of foreign ownership. Domestic banks acquired by foreign banks were also less inefficient than domestic banks. The market conditions are favorable for foreign banks to exploit their comparative advantage into lower costs causing lower inefficiency (Hasan and Marton 2003, p. 19). There results are consistent with the results obtained by Kraft *et al* (2002) on Croatian data.

Matousek and Taci (2003) analyzed the efficiency of foreign and domestic banks in the CEE countries. Distribution-free approach (DFA) was used as an estimation method. The dataset covered 38 banks in the period 1993–1998 in the Czech Republic. Foreign banks, small domestic banks and large domestic banks were differentiated between. The findings revealed that foreign banks were on average over six years more efficient than the other banks, although their efficiency has been comparable with the "good" small banks' efficiency in the early years of their operation.

Fries and Taci (2004) analyzed the efficiency of banks in 15 transition countries. Having analyzed a sample of 289, they concluded that the majority of foreign-owned banks were most efficient and the domestic banks were least efficient.

Green *et al* (2004) investigated bank efficiency on the large sample of Central and Eastern European countries[5], including 273 foreign and domestic banks in 1995–1999. Their general conclusion was that foreign banks were not significantly more efficient that domestic banks. They found no empirical evidence that foreign ownership is associated with lower costs. The author suggests that foreign banks can have lower costs in the long run, whereas in the short run, foreign banks have excessive costs to transfer their know-how into the transition countries and therefore are not more efficient.

Kim and Lee (2004) analyzed the effect of foreign banks' entry on the performance of domestic banks in Korea, concluding that foreign banks' entry led to higher cost efficiency of domestic banks. They also found some evidence that domestic banks with higher foreign ownership reported lower profits because of more critical assessments of loan portfolio quality.

Weill (2003) analyzed the efficiency of foreign and domestic banks in the Czech Republic and Poland, reaching a conclusion that foreign banks are more

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[5] The countries in the sample were: Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland and Romania.

cost-efficient.[6] In his study, the mean cost efficiency of foreign banks was 70.4%, while it was 62% for domestically owned banks. The main advantage of foreign banks consisted in the transfer of knowledge from mother banks and better governance by shareholders. The general conclusion of the paper is that openness of the banking market to foreign capital is positively associated with better performance of transition banking market (Weill 2003, p. 25). Havrylchyk (2003) found similar results about the Polish banking industry, establishing that the higher efficiency of foreign-owned banks was mainly caused by their higher loan portfolio quality, higher labour productivity and greater market power.

Bonin *et al* (2003) analyzed the cost end profitability efficiency of foreign and domestic private and governmental banks in 11 transition countries, concluding that foreign banks have higher cost efficiency. On the other hand, the profitability of foreign banks was not substantially higher than that of domestically owned banks. The study suggests that foreign banks offer better service as they collect more deposits and offer more loans than domestic private and government-owned banks.

Unite and Sullivan (2001) found in their empirical research that foreign banks' entry into the Philippine banking market narrowed the interest spreads and overall costs of the local banking system. Competition from foreign banks compels domestic banks to be more efficient and to focus their activities more carefully.

1.2.3. The impact of foreign banks' entry on the stability of the host banking market

Financial stability is one the key issues of any banking market. Although financial "globalization" very beneficial to world economy, it can also be a source of instability, especially in emerging markets (Mullineux and Murinde 2003). In transition countries the initial banking crises[7] after the liberalization of the banking market are common. Banking crises can be fiscally very costly for the local economy. According to Honohan and Klingebiel (2000) and Hoggarth *et al* (2001) the average fiscal costs are 15–20% of GDP. At the same time banking crises can be tools for market restructuring in transition countries.

The argument that greater international financial competition should improve credit supply is based on the financial liberalization (FL) framework was originally suggested by McKinnon (1973) and Shaw (1973). Financial liberalization is defined as elimination of financial regulations with the aim of

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[6] Similar results were reached by Matousek and Taci (2003) about the banking sector of the Czech Republic.

[7] The banking crisis is defined as a situation when much or all of the banking capital in a country is exhausted (Caprio and Klingebiel 2003, p 1.)

reducing excess demand for credit. FL often comprises capital account liberalization, leading to more portfolio investments and greater mobility of multinational corporations and multinational banks. McKinnon (1973) and Shaw (1973) proposed that there is an excess of credit demand in less developed countries and elimination of entry restrictions would make it possible for multinational banks to satisfy it.

The FL framework can be used here for analyzing the effects of foreign banks' entry into the CEE countries. One of the limitations for using the FL framework for analyzing the effect of foreign banks' entry is that the FL in the CEE countries took place in the early 1990s, but foreign banks started to enter the CEE markets intensively in the late 1990s. Therefore we cannot directly link the banking crises of the first half of the 1990s with the effects deriving from the entry of foreign banks. There having been no banking crises in the observable CEE countries since 2000, it remains unclear how foreign banks would act in times of crisis.

In the CEE countries, financial market changes have included both domestic and external liberalization, such as market-based interest rate determinations and lending decisions, allowing entry of foreign banks as well as inward and outward capital accounts (Weller 1999, p. 2). Weller has argued that the FL in the CEE countries differs from the FL of other emerging markets in several aspects. First, the pace of changes accompanying FL in emerging economies is much faster. Second, the economic foundations of the CEE transition countries differ from those of the emerging economies. Weller (1999) showed that the default risk of banks in the CEE countries has been lower than in the emerging countries prior to a crisis. Moreover, the emerging markets have lower stock market growth compared to the CEE countries.

Important issues that arise in connection with the liberation of the financial system are the potential risk of financial crises and the increase in financial fragility. Demirgüç-Kunt and Detragiache (1998) argued in their study that banking crises are more likely to occur in liberalized markets. They used a panel of 53 countries between 1980 and 1995. But they also found that the effect of FL on the fragility of the banking sector was weaker for countries with strong institutional environments. Bonin *et al* 1998 suggested that foreign banks' entry would contribute to the development of financial markets. In that sense, foreign banks' entry has a potential to make the local banking market less fragile after FL.

In the transition countries, two types of banking sector reforms, namely the rehabilitation approach and the new entry approach (Claessens, 1996) have been distinguished. The rehabilitation approach to banking reforms tries to build up market-oriented banking systems by recapitalizing the former mono-bank system, using limited privatization and very limited permission of new entry. The new entry approach, in contrast, tries to build up new privately owned banking systems by privatizing state banks and giving licenses to new privately owned banks. It is also possible to use both approaches simultaneously.

According to Alimkulov (1999), both approaches will eventually lead to privati-
zation. The majority of the CEE countries have followed the rehabilitation
approach; as an exception, Estonia had the new entry approach to banking
reforms (Claessens 1996, p. 8). Nevertheless, both approaches to banking sector
reforms suggest gradual movement from one stage to another. The integrated
approach of banking sector reforms is presented in Figure 1.5.
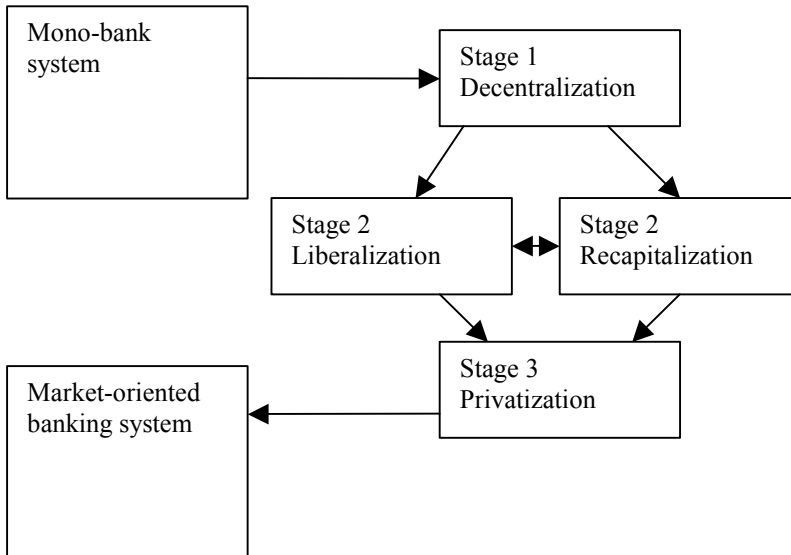
Figure 1.5. The transformation model for banking sector reforms in transition
countries.
Source: The author's drawing based on Claessens 1996 and Alimkulov 1999.

Both the new entry approach and the rehabilitation approach start with
decentralizing the mono-bank system into a two-tier banking system. In the new
entry approach, liberalization follows and new banks are permitted to enter the
market. This model allows foreign banks to enter at the early stage of the
banking system reforms. In the rehabilitation approach, on the other hand,
recapitalization of state banks is the second step. The most intensive entry of
foreign banks in both approaches occurs in stage 3, during the privatization of
the banking sector. Both banking system reforms have a potential for an initial
banking crisis. The new entry approach usually leads to a large number of small
and weak banks, recapitalization being costly and leading to a high share of
non-performing loans from the previous system that may cause a banking crisis
(Gros and Steinherr, 1995, Claessens 1996).

An important issue for emerging market economies is whether the entry of
foreign banks will contribute to the stability of their banking systems and will
help them to be a stable source of credit, especially during crises. Mathieson

and Roldos (2001) pointed out two related issues: whether the presence of foreign banks makes systemic banking crises more or less likely to occur, and whether there is a tendency for foreign banks to "cut and run" during crises. In general, it has been suggested that foreign banks can provide a more stable source of credit because the branches and subsidiaries of large international banks can draw on their parents (which typically hold more diversified portfolios). Large international banks are likely to have better access to global financial markets and the entry of foreign banks can thus improve the overall stability of the host country's banking system (stronger prudential supervision; better disclosure, accounting and reporting practice, etc.).

The benefits of increased foreign participation in the banking sector were also discussed by Gruben *et al*. (1999), Lardy (2001). Demirguc-Kunt *et al*. (1998), who noticed that over the period 1988–1995, and for a large sample of countries, foreign banks' entry was generally associated with a lower incidence of local banking crises.

Several empirical studies have shown that there is a positive correlation between foreign ownership of banks and the stability of the banking system (Caprio and Honahan, 2000; Goldberg *et al*., 2000). For example, Dages *et al*. (2000) examined the lending patterns of domestic and foreign banks, finding that foreign banks typically had stronger and less volatile lending growth than their domestic counterparts. They also revealed that the diversity of ownership contributes to greater credit stability in times of turmoil and weakness of the financial system.

One of the hazards involved in foreign banks' entry is a possible reduction of credit in the host country. For example, Weller (1999, 2000) found that foreign banks' entry led to reduced credit supply by Polish domestic banks during the early phase of transition. The reason for this reduction is the need to reduce risk exposure and to prevent bank failure that is more likely due to the competitive pressure from the presence of multinational banks. In contrast, Clarke *et al* (2004) found that the privatization and foreign banks' entry were not negatively associated with credit supply in Argentina, at least not in the long term. Clarke *et al* (2001) found on the basis of their 1999 World Business Environment Study conducted in 38 less developed and transitional countries that foreign banks' entry was associated with fewer obstacles for enterprises of all sizes to receive credit. However, they also ascertained that the credit conditions for large companies improved most.

It is discussed in current literature that in less developed markets and transition markets credit supply is often insufficient because of incomplete information about firms and asymmetric information about their projects, which is why banks are unable to distinguish "good" projects from "bad". In some occasions credit market cannot clear without credit rationing, and banks do not provide loans to all borrowers that are fulfilling their crediting conditions (Stigliz and Weiss 1981, Freixas and Rochet 1998). Credit rationing is more probable to occur in case of very high interest rates and high demand for credit,

as it happened in Estonia 1998–2000. The reason for credit rationing is illustrated in Figure 1.6. The bank has a backward bending supply of credit because the expected return on credit has optimal value ρ^* at the optimal interest rate R^*. With interest rates higher than R^*, the bank's loan revenue will decrease as the quality of its loan portfolio starts to fall – a high interest rate is not acceptable for good projects and only risky projects can afford such a high interest rate. The credit market may therefore achieve equilibrium only with credit rationing if the interest rate is higher than R^*, the bank has the credit supply curve CS, and credit demand is high (D_2).
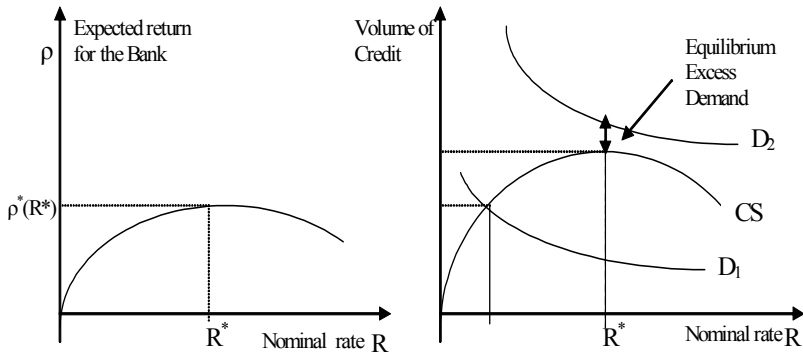
Figure 1.6. Excess Credit Rationing.
Source: Freixas and Rochet 1998, pp. 139–140.

Foreign banks are generally better capitalized and have better risk management techniques. That enables them to offer credit also during banking crises, while domestic banks are forced to reduce credit because of high risks.

Foreign banks tend to be more internationally diversified than domestic banks, rendering them less sensitive to the macroeconomic conditions in the host country. Thus, foreign banks are able to provide credit when domestic banks cannot, helping to smooth out business cycle fluctuations. (Montgomery 2003, p. 6)

Cárdenas *et al* (2003) conclude that foreign banks can be a substantial source of credit stability during crises, but they can also be a source of contagion. The risk of contagion is higher for those countries where the ownership structure is concentrated into one country. Then a crisis in home country may affect the whole of the host country's economy through the business decisions of foreign banks. Goldberg (2001) also found that the credit supply to emerging markets by U.S. banks is sensitive to U.S. cyclical conditions.

Nilsen and Rovelli (2001) found that deposit withdrawals by international investors depend on their risk aversion. The higher their risk aversion, the more likely they are to withdraw their short-term deposits, causing financial instability. The author suggests that the presence of foreign banks can reduce

foreign investors' aversion to risk because foreign banks are financially stronger.

Buch *et al* (2003) suggest that the exposure of the CEE countries' financial markets to their large neighboring European markets will increase the stability of their financial system as it enables better liquidity risk diversification in the European interbank market. Foreign banks bring new capital into their host country, which is crucial during a crisis, helping to stabilize the banking market. Foreign banks may increase the stability of their host markets also through the transfer of know-how, especially through the introduction of modern risk management techniques (Cárdenas *et al* 2003, p. 23–24).

Cárdenas *et al* (2003) argue that alongside better services and management techniques there can also be some adverse effects of foreign control. Foreign subsidiaries are often centrally controlled and are supposed to focus only on the local market and stop the majority of their international activities. This can be harmful to stability during a shock in the local market as the subsidiary's assets portfolio is concentrated on the local market.

Bonin and Ábel (2000: 8) compared foreign banks' entry to a double-edged sword, for it is welfare-enhancing for the host country's banking sector as a whole but often threatening to the market position of the already weak domestic banks as the foreign banks skim the cream by taking away good clients.

Claessens *et al* (2001) and Unite and Sullivan (2003) concluded that foreign banks' entry is directly associated with an increase in bank risk. Unite and Sullivan (2003) analyzed the credit portfolio quality of Philippine's domestic banks, finding that the loan loss provisions of domestic banks increased with foreign banks' entry. The probable reason was that foreign banks attracted more creditworthy customers with better loan conditions and lower interest rates. This left more risky clients to domestic banks and therefore loan losses in domestic banks increased. The authors emphasized, however, that this was only a short-term effect. In the long run, the credit portfolio quality of domestic banks may improve if they introduce more modern credit risk management techniques.

Crystal *et al* (2002) analyzed the differences in the stability of domestic and foreign banks in the Latin American countries between 1995 and 2000. They discovered that the overall financial situations of foreign and domestic private banks did not differ significantly, but state-owned banks performed significantly worse. Foreign banks tend to have more robust credit growth and greater asset liquidity; they also have higher risk weighted capital ratios that promote the stability of the banking system (Crystal *et al* 2002, p. 5).

One way in which foreign banks can increase the stability of the banking market in transition economies is by having a more conservative credit policy (Tschoegl 2003, p. 23). At the same time, branches certainly and subsidiaries probably benefit from parental support during crisis. In times of crisis, foreign banks also benefit from "flight to quality". Their deposits increase and their crediting is therefore less volatile during crisis. Tschoegl (2003) stresses that those positive effects of foreign banks are especially strong if their share in the host market is low.

Kim and Lee (2004) analyzed the performance of foreign and domestic banks in Korea, discovering that during crisis there was a clear movement of deposits from the local firms to international banks like, for example, Citybank. They concluded that although foreign banks contributed marginally to the domestic deposits market, the "flight to quality" phenomenon was present during the crisis period in 1998. The overall conclusion of their paper was that foreign banks' entry has a potential to contribute to greater soundness of the domestic banking system (Kim and Lee 2004, p. 24).

During crises, foreign banks have two types of functions: microeconomic and macroeconomic. The microeconomic function means that foreign banks rehabilitate failed banks by acquiring and recapitalizing them. The macroeconomic function consists in reducing governmental share in the banking sector and thus improving the efficiency of the banking system (Tschoegl 2003, p. 23–25).

The effect of foreign banks' entry on the stability of the banking market is a complex issue that has both direct and indirect implications. Table 1.1. summarizes the possible effects exerted by foreign banks on the stability of their host countries' banking market.

Table 1.1. Possible direct and indirect effects exerted by foreign banks' presence on their host countries' financial stability.

Stability factor of the local banking market	Possible direct effects of foreign banks' presence	Possible indirect effects of foreign banks' presence
Deposit base stability	Higher deposit insurance by foreign branches	Possible flight to quality during crises
Risk of contagion and bank panics	Increases local banks' chances for bankruptcy through competition	Reduces the contagion because of possible flight to quality
Credit supply	More stable credit supply because of parental support	Possible credit rationing due to more strict lending policy
Liquidity and capitalization	Increases the capitalization of acquired banks, better liquidity	May reduce the liquidity of a local stock market due to the delisting of acquired banks
External shocks	Increases exposure to external shocks through international linkages.	Reduces the vulnerability of the host market through better capitalization and parental support
Supervision	Foreign banks' branches import supervision into the host country	Difficult to control foreign branches

Source: The author's composition based on Demirgüç-Kunt and Detragiache 1998, Bonin *et al* 1998, Dages *et al*. 2000, Buch *et al* 2003, Cárdenas *et al* 2003, Crystal *et al* 2002.

A standard model of the stability of a banking system was developed by Diamond and Dybvig (1983). In their model, the instability of a banking system was created by self-fulfilling depositor runs. If those runs are caused by imperfect information, then it is possible to reduce the likelihood of a bank run by creating additional safety nets, such as the lender of last resort and deposit insurance. However, Demirgüç-Kunt and Detragiache (2002) showed on the basis of evidence from 61 countries that explicit deposit insurance will increase the likelihood of a banking crisis due to the increasing moral hazard and a decrease in motivation for the monitor banks.

The banking crises of the type described by Diamond and Dybvig (1983) are speculative in nature. The banking crises in transition countries are usually more radical, being caused by bad loans. Nevertheless, to some extent the possibility of speculative runs exists and the coexistence of fundamental and inefficient bank runs is possible (Freixas and Rochet 1998).

The author suggests that the possible flight to quality can contribute to stability in the banking markets of the CEE countries. The deposit insurance systems are usually weak at the early stage of banking market reforms. Runs on domestic banks are common during crises in transition economies[8]. If foreign banks are present, the depositors can move their deposits into more trustable foreign banks, which may prevent the collapse of the whole banking market. However, runs on domestic banks can still cause their bankruptcy, but not necessarily if they have access to the European interbank market for overnight loans[9]. Therefore the presence of foreign banks can work as an additional stabilizing tool, preventing banking panics. The flight to quality hypothesis has not been tested yet on the example the Central and Eastern European countries. The present author tries to fill this gap by analyzing the growth of demand deposits in foreign and domestic banks in the CEE countries during in times of crisis.

1.3. Integrated approach to foreign banks' entry and the construction of the research hypotheses

This section integrates the main theories of banks' internationalization to explain the motives and timing of foreign banks' entry. Author also applies the FDI literature about the technology spillover effects and competition effects to explain the impact of foreign banks' entry on the performance of local banks.

The author suggests that an integrated approach to the OLI paradigm and the financial liberalization framework can be used to analyze the internationali-zation process of banks in the CEE countries and its effects on the host banking

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[8] The 2001 collapse of the financial system in Argentina is a good example of bank panic.

[9] Buch *et al* (2003) developed a model by Allen and Gale (2000) in this issue.

markets. The eclectic paradigm stresses the importance of bank-specific factors of the FDI decisions. The OLI theory assumes that internationalization location is affected by the ownership advantages of multinational banks. The assumption that international banks are more developed than domestic banks is well applicable to the internationalization of transition banking markets. Ownership advantages can be better management skills, better access to bank capital, and high reputation (Rugman, Kamath 1987).

Williams (1997) suggests that the theory of internalization suits better for explaining the internationalization of banks. This theory postulates that the bank-customer relationship is unique and therefore banks follow their customers abroad. This is defensive entry of banks into new markets. But, as suggested by Bonin and Ábel (2000, p. 8), foreign banks' entry into the emerging markets shows that this entry is more an aggressive rather than defensive approach. Multinational banks are often market seekers who try to enter transition markets to gain new business opportunities at lower costs. Therefore the author suggests that the OLI paradigm suits better for explaining the motives and strategies of foreign banks in the CEE countries, although internalization theory is not strictly controversial to the OLI theory. The integrated approach to the internationalization of banks in the CEE countries is illustrated in Figure 1.7.

The author argues that the traditional theories of multinational banking are not sufficient to explain the activities and implications of multinational banks in transitional banking markets. The OLI theory is quite suitable for explaining how foreign banks can exploit their ownership advantages in transition countries, growing in the growing markets with comparatively high margins. Nevertheless, the OLI theory alone does not explain all the motives and effects of foreign banks' activities in the CEE banking markets as it does not cover the structural changes and market liberalization effects in emerging markets. Although the OLI theory stresses the importance of specific markets for FDI, it does not explain the timing of FDI into banking. Therefore the financial liberalization (FL) framework is integrated with the eclectic paradigm.

The liberalization and opening up for foreign banks creates an opportunity for foreign banks to enter the market. FL thus affects the location of foreign entry (see Figure 1.7). The FL framework explains the effect of market liberalization on capital markets. Several studies (Gros and Steinherr 1995, Bonin *et al* 1998, McKinnon 1993, Murinde and Mullineux 1999, Ábel *et al* 1998) have shown that banking market liberalization often leads to a banking crisis in the early stages of transition to a market economy. During a banking crisis, foreign banks can best exploit their ownership advantages (liquidity, capitalization, reputation, risk management) as local banks are illiquid and less trustworthy. A banking crisis in a specific market will significantly reduce the value of domestic banks, creating an opportunity to take them over at a lower price. Thus, banking crises create additional locational advantages for foreign banks.
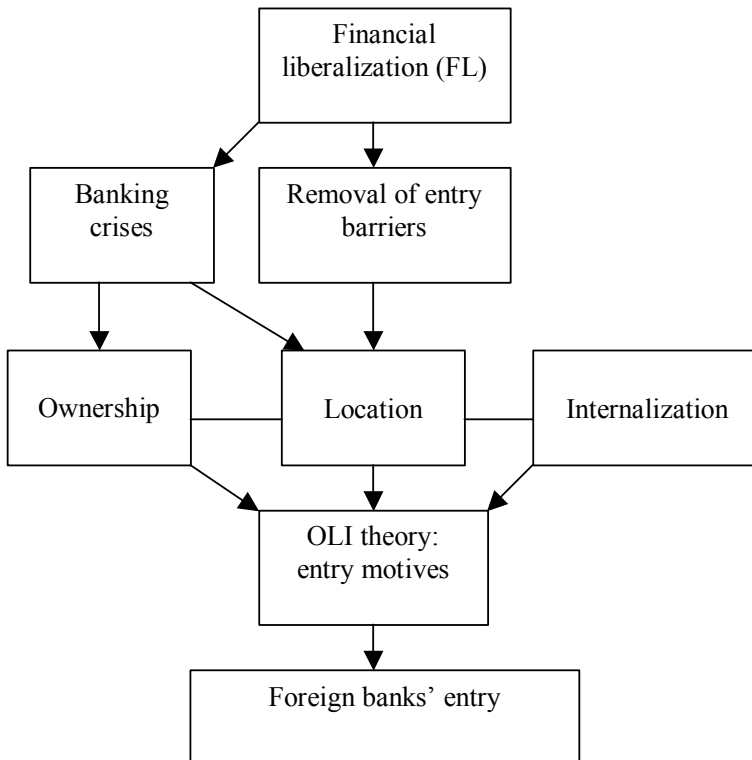
Figure 1.7. Integrated approach of banks' internationalization in transition countries (compiled by the author).

The question of the timing of foreign entry is closely associated with the banking crises that occur after the FL. Therefore the timing of foreign entry is also tested in the paper. The author suggests that foreign banks enter a banking market during a banking crisis when their ownership and locational advantages are stronger. As one of the suggested reasons for banking crises is the lack of competence and management systems in transitional banking markets, the relevance of the transfer of know-how with FDI is stressed. In the current thesis, the relationship between FDI and technology transfer is not the focal question, but in association with the FL framework the hypothesis is put forward that the transfer of risk-management techniques to the CEE markets is the most important know-how that reaches the banking sector together with FDI.

Generally, the author suggests that foreign banks' entry motives in CEE can be explained by the OLI paradigm with enhanced locational advantage due to additional pull factors created by FL.

Figure 1.8. explains the possible impact of foreign banks' entry in the line of FDI literature discussed in Chapter 1.2.1. Foreign banks' entry has two main

channels for influencing the local banking sector. If the competition effect exists, then the effect of foreign entry on the performance of local banks can be either positive or negative. If the technology gap is moderate and the absorptive capacity is sufficiently high, then it is possible that local banks are able to catch up and foreign entry will not significantly deteriorate the performance of local banks. If the technology gap is big, then foreign banks will "steal" the market shares of the local banks, achieving predominance on the market. According to the OLI paradigm, in the transition countries described above, foreign banks enter the markets where their ownership and locational advantages are highest. The higher is the technology gap between the foreign and domestic banks, the higher is their ownership advantage. This means that foreign banks would enter the CEE markets where the competition effect on the performance of local banks is negative. This discussion leads us to the hypothesis that the entry of foreign banks will reduce the performance of domestic banks. The competition effect too may impact on the stability of local banks both positively and negatively. Domestic banks either increase their financial stability to avoid bankruptcy in a more competitive environment or take more risks to keep their profitability as high as possible.
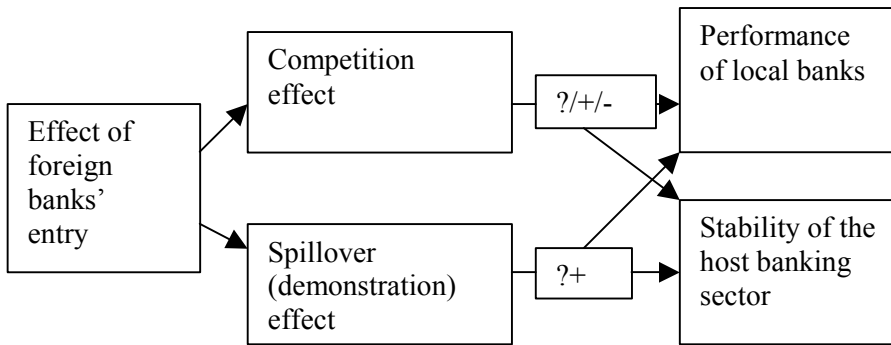
Figure 1.8. Competition and spillover effects of foreign banks on the performance and stability of local banks. (Compiled by the author.)

The spillover effect, if it does exist, is considered to be positive. As pointed out by Teece (1977), a channel for technology diffusion to domestic firms can be, for example, the flow of labour from foreign to domestic firms. Local banks can learn and imitate to raise the quality of their banking services at a lower cost which would improve their overall performance *ceteris paribus*. The spillover effect can also act as a stabilizer of the host banking sector in transition countries. In short, foreign banks demonstrate high standards of banking practice and there can also occur diffusion of risk management technology to domestic banks.

In order to test the possibility to integrate the OLI theory, FL framework and technology transfer in the CEE markets, three hypotheses are formulated. The first one tests the main motivation of foreign banks to enter the CEE markets.

The eclectic paradigm suggests that international banks can gain from entry into a particular host market if they use their ownership and locational advantages. The growing CEE banking market with its comparatively high margins and low local competition compared with the developed EU banking markets make it reasonable for large international banks to enlarge their activities into the CEE markets. The following hypothesis is proposed:

H1: The market-seeking is the predominant entry motive of foreign banks on the CEE markets.

The OLI paradigm suggests that the ownership advantage that an international bank can exploit in its target market is one of the key factors behind their investment decisions (the eclectic paradigm was discussed in Section 1.1.3). A multinational bank can gain a market share in the CEE countries owing to its better reputation and better access to bank capital that enables it to offer better deposit and credit terms. The following hypothesis is put forward:

H2: Foreign banks can exploit their ownership advantages on the CEE markets.

The entry of a foreign bank into the CEE banking market is associated with market liberalization and the motives of foreign banks to expand their activities into new profitable markets. At the same time, foreign entry into the CEE markets is considered to be associated with a local banking crisis, during which the market value of the domestic banks is very low. This is the good chance for foreign banks to acquire the local banks at a low price. The risks that have been taken by domestic banks during the liberalization of the market reveal themselves during the banking crisis. It is commonly known that one of the main problems faced by banks in the emerging banking markets was the lack of management knowledge and risk assessment techniques. Transition from the Soviet mono-bank system to the modern two-tier banking system generated a huge amount of bad loans because the state banking system basically did not analyze credit risks in planning economy. Therefore, foreign banks could exploit their ownership advantages best during and after the crisis buy rehabilitating the acquired banks, cleaning up their balance sheets and introducing modern risk management systems. There can also be the spillover effect of knowledge transfer into domestic banks in long run. Following the discussion above, I form the hypothesis:

H3: There is a transfer of know-how from parent banks to foreign banks and a spillover effect of this knowledge transfer on domestic banks.

According to the integrated OLI theory and financial liberalization framework foreign banks should enter the banking market of the transition economies during banking crises. There are two main reasons for such timing. First, during

crises, the market values of domestic insolvent banks are very low and it is less costly to acquire a bank. Even if a foreign bank enters a market by a branch, it can still benefit from the entry as the domestic banks are not trustable during crises and the foreign bank has a significant ownership advantage that it can use to gain a market share. Similarly, Buckley and Casson (1981) concluded that the entry costs and demand factor determine the optimal time for FDI. During banking crises foreign banks enjoy enhanced locational and ownership advantages, which determines their timing of market entry. This discussion leads us to the following hypothesis:

H4: The entry of foreign banks into the CEE markets is more intensive during banking crises.

Previous studies about foreign banks participation and bank net interest margins (Hermes and Lensink 2002, 2003) have found that foreign banks' entry is associated with higher interest margins of banks in the short run. Quite often authors find that there is no statistically significant relationship between net interest margin and foreign banks' share (Zajc, 2003). This indicates that net interest margin is probably related to other factors, such as overall competition on the market, banks' own market shares, real interest rates, etc. Unite and Sullivan (2003) found foreign banks' entry to be inversely associated with interest rate spreads of domestic banks, but only of those that are affiliated to some family business group. A rise in competition is to be expected in the market if foreign banks' increases.

It is a common trend in banking markets that income from lending activities is falling due to increasing competition. Since an increase in foreign banks' share in the market is generally associated with the effects of higher competition, it is expected that banks will be trying to increase their non-interest incomes to compensate for the falling interest margins. At the same time, increasing competition associated with foreign banks' entry may also decrease the non-interest income of banks, because they try to offer their customers better conditions and prices. Therefore, the final effect of foreign banks' entry on non-interest income is somewhat ambiguous.

The ratio of a bank's profits to its total assets reflects the overall profitability outcome of the bank. Foreign banks' entry is usually expected to have a positive effect on competition in the banking market and therefore it is expected to have a negative effect on bank profitability. Several authors have found that foreign banks' entry reduces the profits of the domestic banking sector (see Claessens *et al*, 2001; Hermes and Lensink, 2003; Zajc 2002; Unite and Sullivan 2003). Following the discussion above, author suggests that income level and profitability of local banks decrease in association of negative competition effect of foreign banks' entry and the following hypothesis is set up:

H5: The net interest margin, non-interest income and profitability of a bank in a given country are negatively correlated with foreign banks' share in that country.

Claessens *et al* (2001) concluded that a higher share of foreign banks on the market is associated with lower overhead costs of banks, which indicates higher efficiency. In the transition countries this relationship can be opposite at least in a short-term period. Domestic banks react to foreign banks' entry with higher overhead costs because they want to retain their favourable image and technology base to be competitive in the market. The other explanation for increasing overhead costs would be the adjustment costs that have to be made when a foreign bank takes over a domestic bank. Usually foreign banks have a more developed technological base that can allow for lower overhead costs in the long run, but their short-term effect can be higher overhead costs. I propose the following hypothesis:

H6: The overhead costs of a bank in a given country are positively correlated with foreign banks' share in that country.

Hermes and Lensink (2003) found that the financial development of a market is a relevant factor for the effect of foreign banks' entry. In a more developed market, the effect of foreign entry is probably not so strong because the potential to learn from foreign banks is not so high. This is also related to the common assumption that foreign banks are more developed than domestic banks, although this is not always the case. For example, an Estonian commercial bank entering the Latvian market is not significantly more advanced than Latvian domestic banks. I suggest that the way foreign banks' proportion on the market influences the performance of banks depends on the level of financial development of the market. It is probable that the banking market's development is especially important for overhead costs and non-interest activities. In more advanced markets, the investments into banking technology have already been made and therefore the overhead costs will rise especially in less developed markets, while in developed markets the effect is weaker. The same holds for non-interest income of banks. In developed markets where competition is more fierce, banks have already shifted to non-interest activities and therefore in more developed markets foreign banks' entry may even decrease non-interest incomes, because the competition effect is stronger than the adjustment effect. Therefore the technology gap hypothesis described above is tested.

Banking markets in the CEE countries are quite concentrated. In some countries, such as Estonia, Lithuania, Slovakia, three biggest banks hold more than 60% of the market. Williams (2003) analyzed foreign and domestic banks' profitability determinants in Australia, finding that the competitors' market share decreases a bank's profits significantly. The author suggests that the way local banks react to foreign banks' entry may depend on that their market share.

Bigger banks probably react less to foreign entry, because they are either too big to react quickly to the market conditions or foreign banks' entry is less important for them by comparison with smaller banks. This discussion leads us to the following hypothesis:

H7: Foreign banks' entry effects on local banks' performance depend on their market share and the level of development of the banking market in the host country.

The effect of foreign banks' entry on the banks' loan loss provisions is still unambiguous because foreign banks' entry may have both positive and negative effects on the quality of loans and therefore the result could even be non-significant. Usually, foreign banks have better credit risk management techniques and then higher foreign ownership is negatively correlated with loan loss provisions. At the same time, increasing competition in the loan market could lead banks to reduce credit quality because they want to keep their market shares and increase lending (see Unite and Sullivan 2003). I follow the idea proposed by Weller (2000) that the entry of foreign banks forces domestic banks to take fewer risks and provide less credit to avoid bank failure in the conditions of intensified competition. Therefore I form the following hypothesis:

H8: Foreign ownership in the banking sector is negatively correlated with the banks' loan loss provisions.

Several authors have stressed that one of the main positive effects of foreign banks' entry is that they have a stronger and less volatile lending growth in times of recession (see Mathieson and Roldos (2001), Crystal *et al* (2002), Cárdenas *et al* (2003), Clarke *et al* (2004), Caprio and Honahan, 2000; Goldberg *et al.*, 2000). The financial liberalization framework by McKinnon (1973) and Shaw (1973) also suggests that foreign banks can meet the excess demand for credit due to their better access to international capital markets. Tschoegl (2003) suggests that foreign branches certainly and subsidiaries probably benefit form parental support during a crisis. In times of crisis, foreign banks also benefit from "flight to quality", their deposits increasing and their crediting therefore being less volatile. This discussion leads us to the following hypothesis:

H9: Foreign banks have a less volatile growth of credit over time.

The presence of the flight to quality phenomenon discussed by Tschoegl (2003) has not been sufficiently researched in the CEE countries. Kim and Lee (2004) found that there was a tendency to move deposits into large international banks during the banking crisis in Korea in 1997. The majority of foreign banks have entered the CEE market during a crisis and probably used their good reputation to take over the deposits from problematic domestic banks. Demand deposits

are most likely to be moved from one bank to another as there are restrictions for time deposits. Demand deposits have almost no switching costs, except the requirement that a firm or a household that has received a loan from the banks is obligated to hold an account in that particular bank. As demand deposits have low switching costs, it can be expected that during a crisis, when there is a high probability of bank failure, demand deposits are likely to be the first to flow to trustable foreign banks. If the tendency of deposit flight from domestic banks to foreign banks is present, then it can be expected that the average deposit growth of domestic banks is falling during a crisis period, while it may increase in foreign banks. I put forward the following hypothesis:

H10: There is an additional inflow of demand deposits into foreign banks during a banking crisis.

One of the potential contributions by foreign banks to the stability is that they are likely to be less affected by economic shocks and their overall activity is less volatile. Foreign banks can hope for parental support during crises, which enables them to be more effective. Domestic banks are more closely connected to local businesses and capital. Therefore, domestic banks have to take countermeasures to avoid bank failure during a crisis. Domestic banks generally have to have higher liquidity and capitalization than foreign banks in order to be able to absorb economic shocks. Multinational banks have better allocation of risks due to international allocation of assets. At the same time, foreign banks are bigger than domestic banks and can therefore achieve economies of scope by holding a lower level of liquidity. Another reason for foreign banks to have a less volatile liquidity level and capitalization is that they have additional lenders of last resort – their parent banks. In view of the discussion above, I propose the following hypothesis:

H11: Foreign banks have less volatile liquidity levels and capitalization compared to domestic banks.

The summary of hypotheses is presented in Table 1.2. There are three types of hypotheses. Hypotheses 1–4 are set up to analyze the validity of integration the OLI theory and FL framework into one framework. Hypotheses 5 to 8 are set up to test the effect of foreign banks entry on banks' performance in the CEE countries. Hypotheses 8–11 are set up to analyze the effect of foreign bank entry on banking market stability in the CEE countries.

Table 1.2. Testable hypotheses

Type of hypothesis	Hypotheses	Indicators
Integration of OLI and FL framework	1–4	• Entry motives • Ownership advantages • Transfer of know-how • Timing of foreign entry
Effect of foreign bank entry on banks' performance	5–8	• Net interest margin • Pre-tax profit • Other operating income • Overhead costs • Market share • Banking sector development
Effect of foreign bank entry on banking sector stability	8–11	• Credit growth • Demand deposits • Loan loss provisions • Capitalization • Liquidity

Source: compiled by the author

2. FOREIGN BANKS' ENTRY INTO AND THEIR IMPACT ON THE CEE BANKING MARKETS: AN EMPIRICAL ANALYSIS

2.1. Internationalization tendencies of the CEE banking markets

International banking trends can historically be divided into three waves. The "first wave" occurred as early as at the end of the nineteenth century (see Jones 1990; Koford and Tschoegl 2003; Herrero and Simón 2003). International banking literature has been proliferating since the "second wave" of international banking activities in developing countries in 1960s when a large number of foreign banks entered the emerging markets.

The second wave lasted until the debt crisis of the 1980s in Latin-America. The "third wave" began in the 1990s, and can be called the era of foreign banks' ultimate conquest as their share in the emerging markets has been growing very fast during this period.

One of the key concerns for the transition markets is the attractiveness of a country to foreign direct investment (FDI). Mickiewicz *et al* (2000) concluded that the higher the diversity of FDIs, the more favourable they are for the host country in terms of technological spillover. Hungary is a good example in that respect. The privatization has been successful and both the overall FDI level and the per capita FDI level are high. Nevertheless, it can be seen from Figure 2.1 that since 2001 the FDI flows have decreased in many CEE countries due to completed privatization.

In absolute terms, the FDI level has been highest in Poland, which is not surprising, considering that Poland is the largest among the discussed CEE countries. The FDI inflow into the Czech Republic has also been significant. Mickiewicz *et al* (2000) conclude that the privatization process can be sped up by the use of vouchers, but the latter restrict acquisition of local state firms by foreign investors. Direct privatization, which was peculiar to Estonia and Hungary, is likely to attract more FDI as foreign investors can bid at the same terms with domestic agents (Mickiewicz *et al* 2000, p. 27)).

FDI into the financial sector is, on the one hand, associated with the overall reforms in a transition country, but also with possible entry restrictions to foreign banks, on the other. In Slovenia, the domestic banking market was closed to foreign investors for a comparatively long period, resulting in a very low level of foreign ownership and a high level of unprivatized state banks.
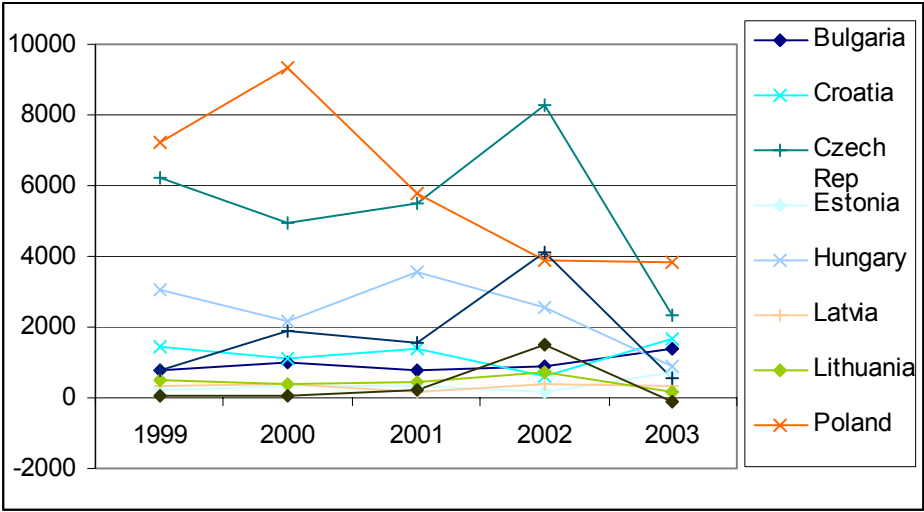
Figure 2.1. Net FDI in million US dollars (UNCTAD, author's figure).

Foreign banks' entry comes with foreign direct investment (FDI) into the financial sector. The CEE countries have received FDI into the financial sector at very different levels (Figure 2.2).
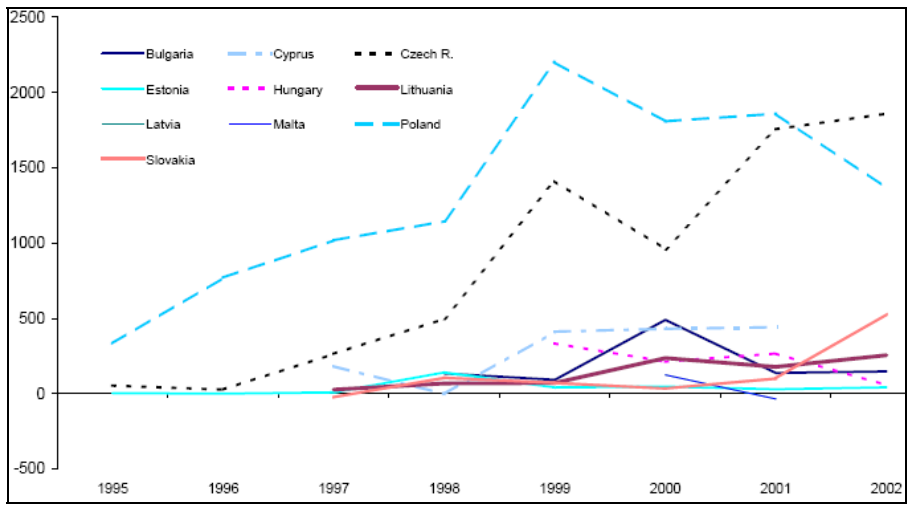
Figure 2.2. Net financial FDI inflows (in million euros) (ECB 2004, p. 11)

Conformably to the overall FDI inflow, the highest level of financial FDI inflows in absolute terms has been to Poland and the Czech Republic. Net financial FDI inflows have increased in Slovakia, the Czech Republic, and Cyprus. The level of net financial FDI in Bulgaria, Estonia and Lithuania has

been quite constant, while it is diminishing in Hungary. The level of FDI to the financial and other sectors is largely dependent on the particular country's privatization process. In countries where privatization has been completed, the FDI inflow is decreasing.

In 2002, financial inflows accounted for 35% in Lithuania and 32% in Poland of the total FDI, being only 12% in Hungary (Figure 2.3).
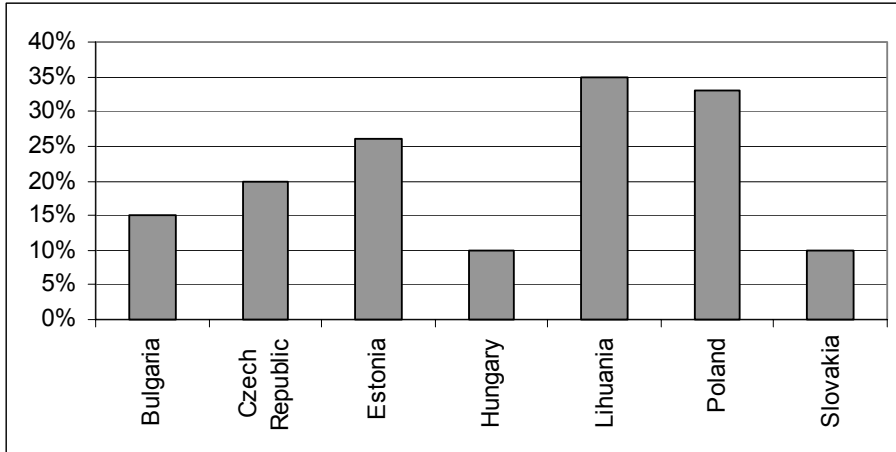
Figure 2.3. Share of financial FDI inflows in total FDI inflows (2002) (UNCTAD 2004).

Figure 2.4 shows that on average foreign banks'[10] share increased significantly in the CEE countries between 1993 and 2003. On average, foreign banks' share in total assets (FSA) is almost 80% now. Notably, their share in assets is significantly higher than their share in the total number of banks. Therefore it can be concluded that foreign banks have high market shares in the transition countries. In most cases the biggest banks in the CEE countries are at least partly, and often fully, foreign-owned (see Appendix 1).

While the share of foreign banks in the total number of banks (FBSN) has increased gradually over time, the average foreign ownership in assets increased remarkably in 1996–1997, following in the wake of the domestic banking crises in many CEE countries. Nevertheless, the average foreign ownership measure is not applicable for analyzing foreign bank entry into a single CEE country. Although the CEE countries are somewhat similar in terms of financial liberalization in the early 1990s, there are country-specific differences. For example, the banking market in Hungary was opened for foreign entries already in the mid-80s, and the two-tier banking system was introduced in 1987. That placed the Hungarian banking sector into a better starting position and at the end of

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[10] A bank is defined as foreign when it is more than 50 percent foreign-owned, i.e. more than 50 percent of its share capital is owned by foreign residents.

2004, the Hungarian banking sector was estimated to be the most advanced one among the CEE countries (Transition Report 2004).
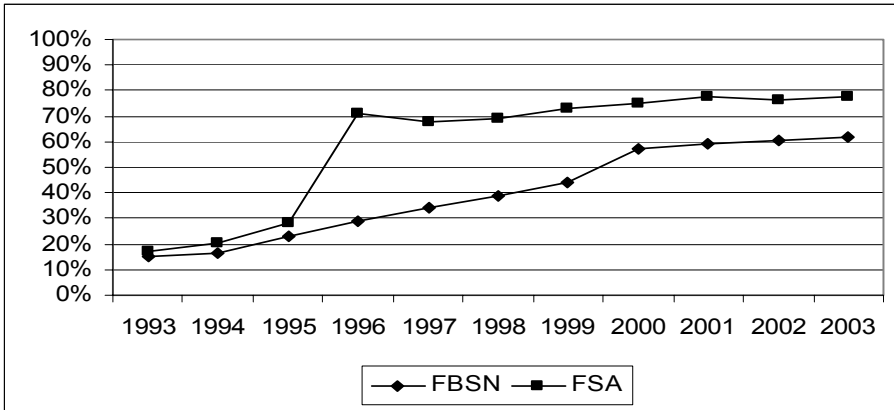
Figure 2.4. Average foreign banks' share in the CEE markets.
Source: BankScope 2005, author's calculations.

Foreign banks' share in the total banking market assets of the CEE countries is shown in Figure 2.5. The highest share in total assets among the CEE countries is in Estonia and Hungary while the lowest share is held by foreign banks in Slovenia, where they control only 15% of the banking market assets. A very remarkable increase in foreign banks' share has occurred in Slovakia, the probable reason being that there was quite a deep banking crisis in Slovakia in 1997, and foreign banks entered the market at the time of the crisis.
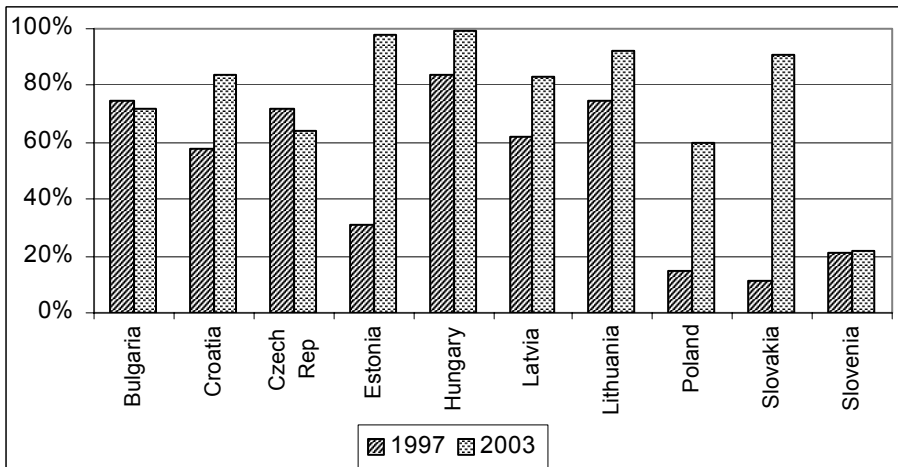
Figure 2.5. Foreign banks' shares in total banking market assets in 1997 and 2003.
Source: BankScope 2005, author's calculations.

Foreign banks' share in each country's total number of banks is given in Figure 2.6. A more detailed overview of their share in the total number of banks is given in Appendix 15. The number of foreign banks has increased over time in almost all the CEE countries. Compared to the 2000 level, by the end of 2001, foreign banks' share in numerical expression had dropped in Lithuania and Latvia. The reason is probably market concentration via bank mergers.
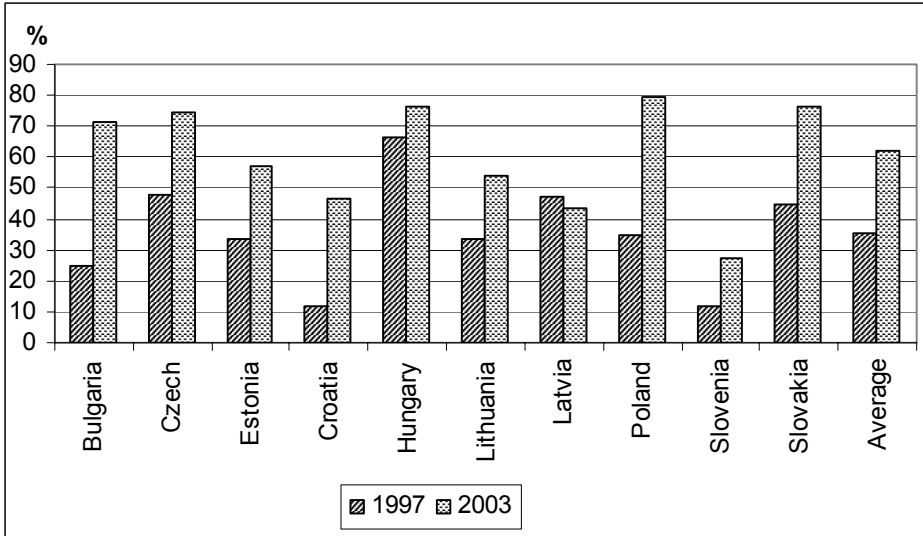
Figure 2.6. Share of foreign banks in the total number of banks.
Source: EBRD 2004; author's calculations.

Suggest that high ownership concentration into a single country or region can have adverse effects on geographical risk diversification of the host country's market. Among the CEE countries, foreign bank ownership is most concentrated in Estonia, where the share of Swedish banks is more than 86 per cent of all the banking market assets.

All the foreign banks in Estonia and Slovenia are from the EU, while this share is about 75% in Hungary and 83% in the Czech Republic (author's calculations based on Cárdenas et al (2003). The ownership of three biggest banks in the CEE countries is described in Appendix 1.

We can distinguish between different groups within foreign ownership by geographical distribution. Nordic banks are very active in the Baltic states, while Italian and Austrian banks are the main actors in Central European countries such as Poland, the Czech Republic, Hungary, Romania and Slovakia. The share of U.S. banks is comparatively high in Poland, where Citibank has the second highest market share (see Appendix 1).

Theoretical literature (Tschoegl 2003) suggests that foreign bank entry effects on the host banking sector depend on entry modes and strategies of

foreign banks. An important differentiation is the one between branches and subsidiaries. Branches are parts of the parent bank and therefore their capitalization is guaranteed even during crises, as long as the parent bank is solvent. Subsidiaries operate independently of their parent bank in terms of capital. The parent bank may let the subsidiary go bankrupt. The supervisory authorities in the host country have full powers to regulate only the subsidiaries of foreign banks. The branches of foreign banks have to follow their home country capital and deposit insurance regulations and have to report only together with their parent banks to the home country, therefore host country authorities have only partial control over foreign banks' branches. At the same time, foreign branches in the CEE countries usually represent banks from more developed countries and so the CEE countries can "import" modern bank regulations from developed countries through their branches.

Consequently, the two entry modes to the CEE countries have both positive and negative aspects. While branches are more difficult to control by local central banks, they can have more positive effects on the host market.

The main operating mode of foreign banks in the CEE countries is through their subsidiaries. It is quite common that there are only two or three foreign branches among the total number of banks. In Estonia, there are currently three foreign bank branches, but their market share is quite modest. The Finnish bank Nordea that has become one of the biggest banks in Northern Europe, has branches in Estonia, Latvia, Lithuania and Poland. Nordea is the only foreign bank branch in Latvia and Lithuania. As foreign branches do not have to fulfill capital adequacy requirements in the host country, they can more easily expand their credit portfolio. The presence of Nordea has remarkably intensified the competition on the credit market in Estonia. Usually the market share of foreign branches is less than 20 per cent of the market in the CEE countries, often below 10 per cent (see Figure 2.7).

The predominance of subsidiaries can be explained by several factors. One and probably the main factor is that foreign banks are acting in the CEE countries as restructurers of inefficient local banks (Tschoegl 2003). Therefore they prefer to acquire local banks during crises to obtain them at lower prices. The second reason is the need to buy the local knowledge and pre-existing market share (ECB 2004, p. 21). The reason for the low level of foreign branches in transition economies can be also the restrictive policies imposed, like it was in Bulgaria until 1994.
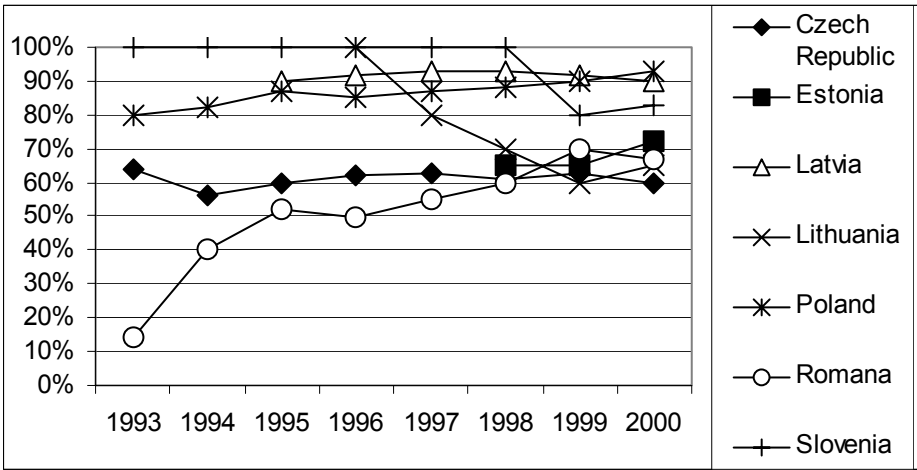
Figure 2.7. Percentage of the foreign subsidiaries of all the foreign banks in the CEE countries.
Source: ECB 2004, p. 20.

A good measure for the actual participation of foreign banks in domestic markets can be the credit they provide to the host economy. De Haas and Van Lelyveld (2002) conducted a comprehensive research among Estonia, Hungary, Poland, Slovenia and the Czech Republic to analyze the penetration of foreign banks of the credit markets of the CEE countries. They also analyzed the importance of cross-border credit versus the credit provided by foreign banks in host markets, concluding that foreign banks did not "run" even at the time of crisis, providing credit to local economies. They also concluded that cross-border credit increased during crisis periods. Table 2.1 gives an overview of the credit trend provided by foreign banks as a share of the countries' GDP. It can be seen that foreign banks provide a significant amount of credit in Estonia, where already in 2000 the private credit by foreign banks to the GDP ratio was 40%. According to De Haas and Van Lelyveld (2002, p. 16), this ratio was even 53% in 2000.

It has been argued that foreign banks focus on the whole-sale market and international trade financing (Foccarelly and Pozzolo 2003), while domestic banks are smaller and therefore focus on retail banking. The development of different business lines of banks is quite diverse in different countries. In the transition economies, foreign banks are mainly involved in retail banking (ECB 2004, p. 30).

Table 2.1. Private credit by foreign banks in the CEE countries (%)

% of GDP	1992	1993	1994	1995	1996	1997	1998	1999	2000	Std. Dev.†
Czech R.							0.0	3.1	31.3	31.3
Estonia				0.0	1.0	1.0	29.0	32.0	40.0	40.0
Hungary		6.0	4.4	5.5	11.9	16.2	18.7	21.6	23.9	23.9
Latvia						11.2	16.5	16.2	19.0	19.0
Lithuania					2.3	4.0	5.1	4.3	6.2	6.2
Poland		0.6	0.9	1.1	3.3	4.1	5.3	12.8	20.0	20.0
Slovakia										
Slovenia	0.4	0.8	1.3	1.8	1.9	2.0	1.8	2.2	9.3	9.3
Average										5.66

Source: ECB 2004, p. 34.

It has been argued that foreign banks focus on the whole-sale market and international trade financing (Foccarelly and Pozzolo 2003), while domestic banks are smaller and therefore focus on retail banking. The development of different business lines of banks is quite diverse in different countries. In the transition economies, foreign banks are mainly involved in retail banking (ECB 2004, p. 30). Figure 2.8. presents the shares of different business lines of banks in the CEE countries in 2001. It can be seen that the main focus of banks was on retail banking and commercial banking. In Bulgaria these business lines are even the only activities of banks. It can be concluded that the wholesale and money markets in the CEE countries are on the whole not well developed and that is the reason why foreign banks also focus on retail customers.
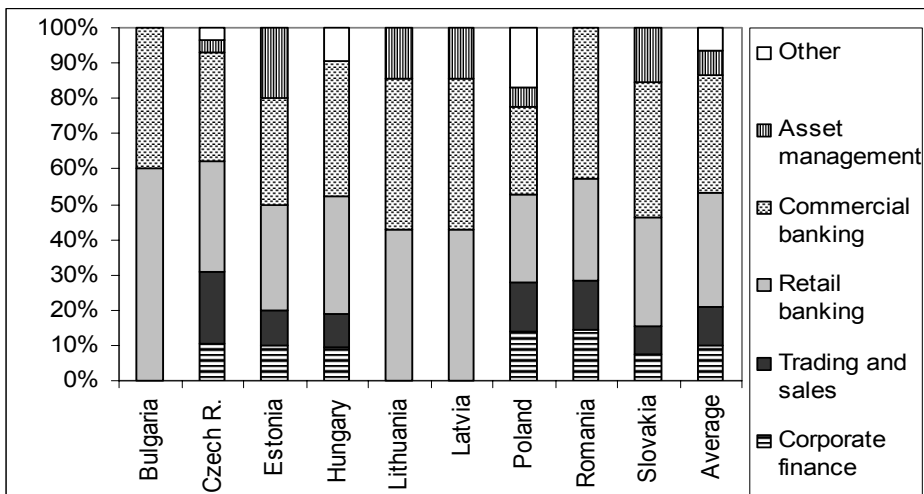
Figure 2.9. Shares of different business lines in the CEE countries in 2001 (ECB 2004, author's figure).

As the comparative statistics about foreign banks' activities and market deve-
lopment in the countries described above do not provide detailed information
about the banking reforms, crises and other important developments, a brief
overview of some CEE countries is given below to cover those aspects.

Bulgaria

The very first foreign banks entered the Bulgarian market already in 1875.
Several times they have achieved the dominant role in the Bulgarian market, but
then again lost it. The new wave of foreign banks could come in 1990, after the
fall of the Communist rule. In 1992, the Law on Banks and Credit Activity was
enforced, permitting the establishment of foreign bank subsidiaries, but not
branches, because the government wanted to keep control over foreign banks'
activities, which would have been impossible with foreign branches. Several
foreign banks entered the market. The acquisition of more than 5% of the
banks' voting shares had to be permitted by the National Bank of Bulgaria
(BNB)(Koford and Tschoegl 2003, p. 21).
   In 1994, the government removed the entry restriction of foreign branches
and the first one – the Branch of the ING Bank entered. Several Bulgarian and
Russian financial institutions came together and established Bulbank, initially
named the Bulgarian-Russian Investment Bank. In 1996, banking panic and
hyperinflation occurred as a result of financial liberalization. In 1997, the
currency board system was introduced to stop the inflation. In 1997 and 1998,
the government succeeded in privatizing several banks to foreign capital. The
government favored foreign banks' entry, because the establishment of the
currency board system limited the possibility for BNB to act as the Lender of
Last Resort and the liquidity provided by foreign parent banks was highly
appreciated. In July 2002, Hypovereinsbank merged with Biochim. The privati-
zation of Biochim resulted in the foreign ownership of more than 80% of the
banking market assets. Koford and Tschoegl (2003) conclude on the basis of the
ecological succession framework that in the future the foreign banks will lose
their dominant position in Bulgaria. They suggest that foreign banks lose their
competitive advantage after some time and domestic banks become dominant
again. Koford and Tschoegl (2003) suggest that domestic banks are better
familiar with the local market conditions and therefore they will eventually be
more effective in Bulgaria. The author of the current dissertation argues that
foreign banks are learning the local conditions in Bulgaria by servicing local
clients and probably will not lose their dominant position in the near future.

Croatia

Croatia's independence began in 1994 with a high rate of inflation − 35%
monthly or more. The period 1995–1998 saw a rapid GDP growth. The lending
and consumption boom that followed led to 11.6% current account deficit in

1996 (Kraft *et al* 2002, p. 7). In 1990, Croatia had 26 state-owned banks. The liberalization of the banking market began in 1994, when bank licensing was established. The number of banks grew rapidly to 46. This phenomenon is similar to the Estonian banking market. The first foreign bank entered the market in 1994. The initial entry of foreign banks was cautious. Their market share remained low until 1999 when two large banks were bought by foreign banks. While in 1994 the foreign banks' share was only 1%, by 1999 it had grown to 40%, and in 2000, foreign banks owned already more than 83% of the market (Kraft *et al* 2002, p. 8).

The privatization of banks in Croatia was organized through the real sector enterprises. Four last state banks were privatized to foreign banks in 1999–2000. The Croatian banking market has suffered from two major banking crises. The first of them was in 1996, when four major banks were illiquid and insolvent. The lender of last resort funding was provided and the banks were put into rehabilitation. The second banking crisis was in 1998–1999 when 14 banks went bankrupt. The main reason for this banking crisis was the problem of bad loans. Kraft *et al* 2002 concluded that between 1994 and 2004 foreign banks had been more efficient than any of the domestic banks in Croatia. Currently foreign banks control more than 80% of the Croatian banking market.

The Czech Republic

The foreign banks' entry pattern and the overall banking market development in the Czech Republic has been analyzed in several studies (see Bonin *et al* 1998, Tschoegl 2003, Matousek and Taci 2003). The first foreign bank entered the Czech market already in 1991. In the Czech Republic, foreign banks have been allowed to establish subsidiaries and acquire stakes in domestic banks since 1990, whereas branches have been allowed since 1992 (Buch, 1997). The foreign ownership grew very rapidly. The government was eager to privatize banks in 1998–1999. In 1999 foreign banks had 50% of the banking market and currently already own over 90%. The Czech banking sector has suffered from the bad assets problem. In 1991, a special consolidation bank was established to clean up the balance sheets of banks. Since 1997, private crediting by banks has fallen significantly (see also Figure 2.25). The reasons for this are the poor economic conditions, restrictive monetary policy and the clean-up of balance sheets (De Haas and Van Lelyveld 2002, p. 22). Currently foreign banks own more than 80% of the market. Yet the bank credit to the private sector in the Czech Republic is falling, although the crediting by foreign banks has been significantly higher than by domestic banks. De Haas and Van Lelyveld showed that the foreign banks' credit has been significantly higher even during crisis periods.

Estonia

Before the 1992 currency reform, the Bank of Estonia did not allow any foreign shares in Estonian commercial banks. But the new regulations on the issuance of banking licences after the currency reform no longer imposed such restrictions. Therefore on 26 August 1992 Ameerika-Balti Ühispank (American Bank of the Baltics), whose sole proprietor was a US businessman, received a licence as did on 29 September 1994 INKO Balti Pank (INKO Baltic Bank), a subsidiary of the Ukrainian INKO Bank. But the Board of the Bank of Estonia did not approve all applications. For example, the representatives of the Austrian Danube Bank had to return bare-handed (Sõrg and Uiboupin 2004).

A branch of Merita bank (Nordea) was the first branch to enter the Estonian market in 1994. Scandinavian banks have been the major foreign investors in Estonia. By the end of 1998, 68.4% of Eesti Ühispank's and 64.9% of Hansapank's capital was in the hands of foreign credit institutions, the foreign share in the share capital of Estonian banks having grown to 57.8%. By the end of 2001, 85.7% of the shares of the Estonian commercial banks were owned by non-residents. At the same time, until 2003 foreign banks made up only 57% of the total number of banks.

If we take a look at foreign banks' share in the total banking market assets, then we can say that foreign banks control the whole market − 99%. One of the concerns of foreign ownership in Estonia is that it is overly concentrated into Scandinavia, mainly into Sweden (see Table 2.20). Such high ownership concentration into one single country can mean a serious risk of contagion (Cárdenas *et al* 2003).

Hungary

The Hungarian banking market was opened for foreign banks already at the beginning of the 1980s, when foreign banks were allowed to set up their subsidiaries in Budapest. A two-tier banking system was established in 1987, but banks were burdened by bad loans from the communist times (De Haas and Van Lelyveld 2002, p. 17). By allowing foreign banks to set up *de novo* greenfield operations and by privatizing its large commercial banks to strategic foreign investors, the Hungarian government permitted foreign banks to penetrate deeper and more quickly into its banking sector than any other government in the region has ever done before (Bonin and Ábel 2000, p. 6.). In 1997, Hungary yielded to OECD demands to permit foreign banks to open their branches in the country. However, although Hungary nominally acceded to OECD pressure for further liberalization of entry, in practice the government vitiated the cost advantage of a branch visà-vis a subsidiary and hence did not materially ease entry (Tschoegl 2003, p. 53).

After several recapitalizations of large state-owned banks by the Ministry of Finance, in 1994 privatization of banking began in Hungary with the sale of the

foreign trade bank, Magyar Külkereskedelmi Bank (MKB), founded in 1950. Foreign ownership in bank equity increased annually from 16.4% to 35.7% in 1995, 49.0% in 1996 and to 60.8% in 1997. By the end of 1997, five of the seven largest banks in Hungary were foreign-owned. At the end of 1999, foreign subscribed capital amounted to 65% of the total equity of the Hungarian banking sector (*Ibid*). In 2000, foreign banks assets accounted for 80% of the total banking market assets and according to the present author's calculations, the foreign share has increased over 90% nowadays.

Latvia

The Latvian banking market has developed considerably since the beginning of the 1990s when the banking market was liberalized in 1992. Currently there are 23 banks on the market; ten of them foreign-owned. Like in the other Baltic States, the main foreign investors are Swedish banks. According to Caprio and Klingebiel 2003, the Latvian banking sector is still undergoing a crisis. Between 1994 and 1999, 35 banks either saw their licenses revoked, were closed, or ceased operations.

Foreign banks' assets in Latvia have grown remarkably. In 2003 more than 70% of the banking market assets were foreign-owned, compared to the 62% at the end of 2001. 68% of the share capital was foreign-owned as of the end of 2001.

Lithuania

The first commercial banks in Lithuania were founded in 1989 and at that time their operations were governed by the laws regulating corporate entities until the adoption of a separate Law on Commercial Banks in 1992. Foreign bank penetration in Lithuania has quite significantly developed in past five years. The major banks in Lithuania are owned by the Swedish Swedbank and SEB. At the end of 2003, 88.7% of share capital in Lithuania was foreign-owned, while the foreign ownership had been 57.7% in 2000 (National Bank of Lithuania, website). In 2001, the asset share of state-owned banks was 12.2%, and by the end of 2003 all banks had been privatized.

Domestic credit to the private sector remains very low in Lithuania, having been 9.3 and 19.9% of the GDP in 1998 and 2003, respectively (Transition Report 2004). In 2001, banks assets constituted 32% of the GDP. The slowdown might be explained by the cautious lending behaviour following the banking (1995) and the Russian crisis (1998) as well as by a general scarcity of lending opportunities. As far as the demand for credit is concerned, the borrowing side appears to be constrained by relatively high lending interest rates caused by insufficient competition among banks and their inflexibility to adapt to clients' demands, in particular to those of SMEs. In 2001, the stock of foreign credit to private non-banks was lower than the ratio of domestic bank credit to private non-banks by more than 5% of the GDP (ECB 2002).

Poland

In 1989, the commercial banking activities of the monobank were separated from the Polish National Bank. The nine new commercial banks were split along regional lines, whereas in many other transition economies the new banks were divided on the basis of customer type. In 1993–1994, Poland implemented a programme to solve the bad loans problems at banks and to promote enterprise restructuring at the same time. The regional commercial banks and the former state-owned special banks had to establish loan work-out departments, which co-operated with foreign partner banks (De Haas and Van Lelyveld 2002, p. 18).

Those foreign banks that wanted to set up a Polish subsidiary or to acquire a Polish bank between 1993 and 1997 had to pay an "entrance fee". They had special entry barriers – they either had to take over a troubled bank or had to purchase Polish government securities at special terms (Storf 2000). During 1999 and 2000 the Polish government was committed to privatizing the regional banks and so many of the government ownership stakes were sold to foreign strategic investors.

One of the key problems at the Polish banking market is its very high concentration. The number of banks in Poland has decreased over time. Out of the 83 banks in 1998 only 58 had remained by 2004. The majority of the banks – 46 out of 58 are foreign-owned. The entry of foreign banks remained modest until 1999 when 47% of the banking market assets was foreign-controlled; in 2000 this ratio was already 69% and is currently growing.

Slovakia

At the end of December 2001, the share of the domestic private sector in subscribed equity capital of the banking sector was 6.4%. Foreign investors, including permanently provided funds to branch offices of foreign banks in Slovakia, held 60.6% of the total subscribed private equity capital of banks. Foreign capital included that from Luxembourg (34.9%), Austria (27.9%), the Czech Republic (9.8%), the Netherlands (7.6%), Italy (5.9%), the United Kingdom (5.2%), the United States (4.7%), Germany (2.4%) and France (1.5%) (ECB 2002, p. 209).

By the end of 2003, there were 21 banks on the Slovakian banking market, 16 of them foreign-owned (Transition Report 2004). The number of domestic banks has gradually dropped in favor of foreign banks. The share of foreign banks assets remains comparatively low. According to the Slovakian Central Bank, only 43% of the banking market assets were foreign-controlled in 2000. One reason for lower penetration of foreign banks in Slovakia is the high market share of state banks that are not privatized yet. According to Caprio and Klingebiel (2003), the Slovakian banking sector has not recovered from the crisis that began after the market liberalization at the beginning of the 1990s.

For example, in 1997 unrecoverable loans were estimated at 101 billion crowns, which is about 31 percent of the loans and 15 percent of the GDP.

Slovenia

Slovenia is an interesting outlier among the CEE countries in terms of foreign banks' presence. Foreign ownership in the Slovenian banking sector remains very low, roughly 25% of the banking market assets. At the end of 2003, six banks out of 22 were foreign-owned. One reason for low foreign bank penetration in Slovenia is that there were entry restrictions for foreign banks until the late 1990s. In the first half of 2001 only 21.09 per cent of the Slovenian banking capital was in foreign hands. In September 2002 this figure rose to 32.45 per cent following the sale of 34 per cent of NLB to KBC (Belgium) and 5 per cent to the European Bank for Reconstruction and Development (EBRD) (Perrin 2003). The banking sector in Slovenia is to large extent state-owned. Specialists claim that the privatization process in Slovenia is too slow. Nevertheless, the banking sector in Slovenia is sound and stable, but underdeveloped (ECB 2002, p. 220).

2.2. Foreign banks' entry motives and effects on the CEE countries: a qualitative study

2.2.1. Formulation of the questionnaire

In order to analyze the motives of foreign banks' entry and the influence of foreign banks on the banking sectors in the CEE countries a survey was carried out. A special questionnaire was designed to study various aspects of banks' internationalization in the CEE countries using the experience and lessons of previous analogous studies (see Konopielko (1999); Kraft and Galac (2000); Pomerleano and Vojta (2001)).

A survey of foreign and domestic banks was carried out in 2001–2002 in Estonia, Lithuania, Poland, and Romania; some comparative data were available also from an analogous Croatian (CR) study (Kraft and Galac, 2000).

The author was a member of the research group that developed the above questionnaire to get fully comparable international qualitative evidence about foreign banks' entry. The author was also responsible for interviewing the bank managers in Estonia.

In Table 2.2. the sample size and response in each country is presented. All the foreign banks (4), representative offices of foreign banks (6) and domestically owned banks (3) of Estonia were asked about the motives for foreign banks' entry and its preliminary effects. The response rate of the domestic banks was 100%, and the response rates of the foreign banks and their

representative offices were 50% and 67%, respectively. In Poland, 40 banks (out of more than 60) were asked to answer the questionnaires. The response rate of domestically controlled banks was higher than that of foreign-controlled ones. Altogether the general response rate reached the 65% level.

All foreign and domestic banks of Romania were asked about the effects of foreign banks' entry on the Romanian banking system. The proposed questionnaire was similar for foreign and domestic banks with some differences in questions[11]. The response rate was 60% for the domestic and 50% for the foreign banks. This rate proves the lack of time and availability of officials of these banks as well as their privacy policy in evaluating the competitors within the market. In Lithuania, a survey on foreign banks' role was conducted in June–December 2001. All the foreign and domestically owned banks were asked about the motivation and preliminary effects of foreign banks' entry. The response rate for the domestic banks was about 80 percent, and for foreign banks and their representative offices about 70 percent.

Table 2.2. The sample size and the response rate of the survey

	Estonia	Lithuania	Poland*	Romania
Number of banks asked	7 (4)	13 (6)	40 (n.a.)	33 (24)
Response rate of domestic banks (%)	100	80	n.a.	60
Response rate of foreign banks (%)	67	70	n.a.	50

Notes: * – average response rate was 65%.
Source: author's table.

The banks in all the countries involved were asked to evaluate the questions on a 5-point scale. If possible, the chairmen or the board members of banks were asked to fill in the questionnaire. However, the limitation of the present survey is that the author does not have full access to the questionnaires filled out in other countries, and therefore it is not possible to make a deeper statistical analysis of the questionnaire. Another shortcoming of such questionnaire might be that respondents may represent their own view and not the bank's strategy.

The questions were formed in line with previous theoretical contributions about banks' internationalization.

The advantage of such a qualitative analysis is that the statistical data about banking market developments in the transition countries often fail to capture management aspects of foreign banks' entry in different countries. As foreign banks' entry is closely connected with general economic reforms and liberalization of the banking market, it is quite difficult to draw consistent conclusions about banks' internationalization on the basis of international statistical data. Another advantage of the questionnaire-type analysis is the possibility to ask about banks' strategies and future perspectives.

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[11] The exact form of the questionnaire is available by the author on the request.

2.2.2. Survey results

Firstly, the entry motives of foreign banks are analyzed. In Section 1.3. the author set up Hypothesis 1 that the main entry motivation of foreign banks is the market seeking. This hypothesis presumes that the OLI paradigm holds also in the CEE countries and banks are trying to expand their activities into new markets by using some sort of ownership advantage.

The main reasons for entry into the host countries' markets are presented in Figure 2.7 below. The same questions regarding their motives were put to both domestically and foreign-controlled banks. In the accompanying text, the average values of answers over all the countries involved are given in parentheses. The answers of domestic banks are reported in Appendix 2. It appears that the most important motives for foreign banks' entry in all the observed countries are new business opportunities (the average grades given by domestic banks and foreign banks were 4.68 and 4.58, respectively).

H1: The market-seeking is the predominant entry motive of foreign banks on the CEE markets.

The expansion strategy of a particular foreign bank was evaluated as the second more important reason for entry into the host country market. Following the existing clients was a very important reason for foreign banks' entry in Estonia, but not in other countries. Supporting and developing the local client base was mentioned by respondents also as quite an important motive (average grade 3.25 and 3.68). Hellman (1996) has pointed out three potential internationalization strategies of banks: the customer-following strategy, the follow-the-leader strategy and the market-seeking strategy.

The results suggest that banks have probably followed all the three strategies, but "looking for new business opportunities", representing the market seeking strategy, clearly has a higher average importance. The result supports Hypothesis 1 that the domination strategy to enter the CEE banking markets is the market seeking strategy. "Looking for new business opportunities" may in the context of the OLI paradigm mean also the resource seeking, efficiency seeking or the strategic asset seeking strategy, but it is not possible to distinguish between them among the respondents by the questionnaire.

The respondents in all the observed countries did dot evaluate highly foreign exchange trading, portfolio management, and/or meeting competition from other banks. Williams 1997 and Aliber 1984 have stressed that it is very difficult to set up any testable hypotheses to analyze which of the internationalization strategies holds in the banking sector. Nevertheless there are studies that have shown that foreign banks' expansion is positively correlated with bilateral trade and foreign direct investment into the real sector. This trend suggests that the *customer- following* motivation is important for foreign banks (see Miller and Parkhe 1998, Aliber 1984). Engwall and Wallenstål (1988) have pointed

out that for Swedish banks the competitor-following strategy has been the main explanatory aspect of their internationalization pattern.
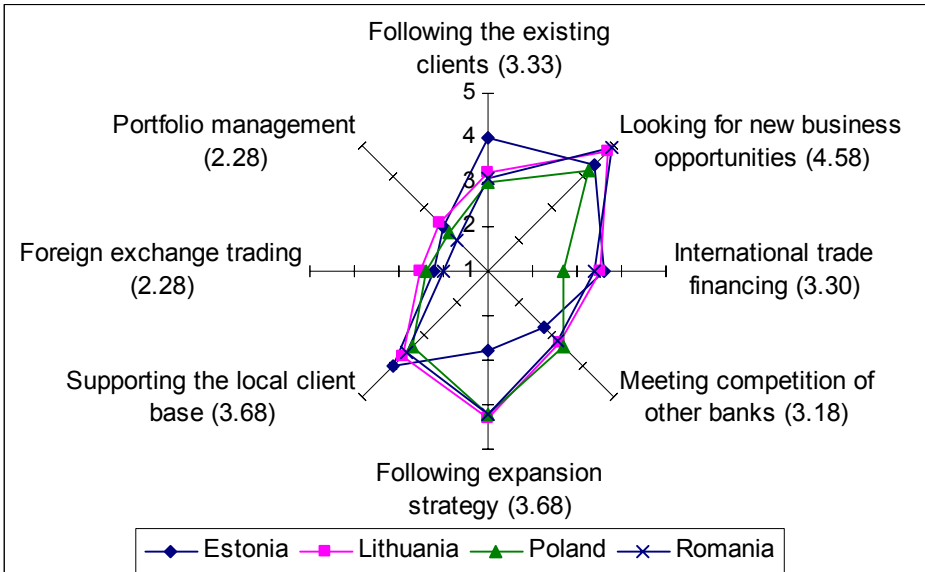
Figure 2.7. Reasons for foreign banks' entry (author's figure).

Next, the importance of different host market characteristics of the financial sector FDI is discussed. It is not possible to distinguish the most important factor underlying the foreign entry decision, because all the factors are equally important and are quite different in different countries (see Figure 2.8).

Nevertheless, the respondents (both domestic and foreign banks) in all the countries evaluated highly macroeconomic and political stability in the country, liberal economic policy, a good potential for the European Union (EU) membership in the future, and the existing clients and potential new clients base (average grades given by domestic banks were respectively 4.28, 3.63, 4.08 and 3.90 points; the grades given by foreign banks – 4.10, 3.43, 3.73 and 3.80 points, see Appendix 3). Surprisingly, good tourism and/or industrial development opportunities were evaluated in all the countries as unimportant for the host country market specifics.

It can be said that the classical important host country determinants of FDI (foreign direct investment) are also important in the banking sector. The results are consistent with Magri et al 2004 who have pointed out that the host market conditions and economic integration do matter for foreign entry. Several authors have suggested that the macroeconomic and political factors and financial liberalization are important for financial sector FDI (see Unite and Sullivan 2001, Paula and Alves 2003, Bonin *et al* 2004, Lee 2002, Wezel 2004).
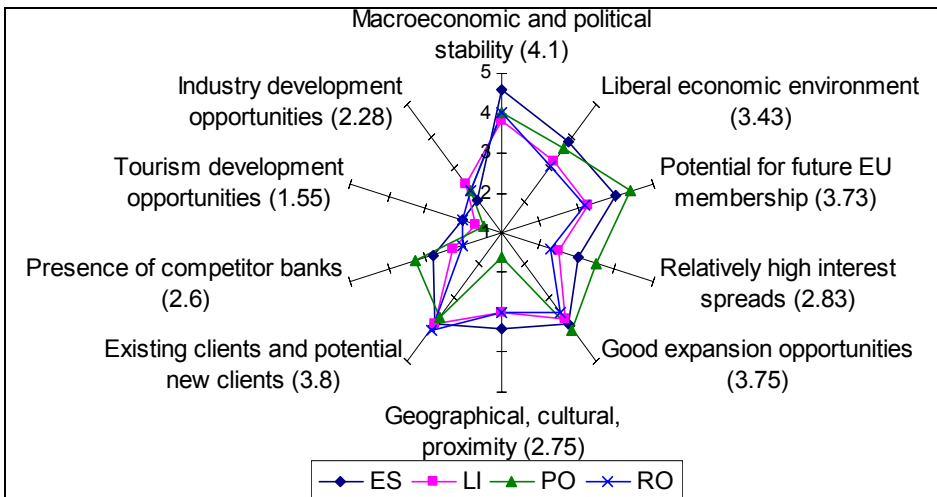
Figure 2.8. The importance of different host market characteristics (ES – Estonia, LI – Lithuania, PO – Poland, RO – Romania) (author's figure).

Many authors agree that foreign banks have several advantages over domestic banks in the transition economies (see Bonin et al. (1998), Kraft and Galac (2000); Konopielko (1999)). Berger *et al* (1999) analyzed the home field hypothesis[12] and globalization hypothesis in several developed countries, concluding that foreign banks have a disadvantage in developed countries and the home field hypothesis holds. Sturm and Willams (2004) suggested that in developing countries the globalization hypothesis holds and foreign banks have a competitive advantage over domestic banks.

The application of Dunning's OLI theory to banking suggests that foreign banks should have some comparative ownership advantages over domestic banks. The author suggests that in the transition countries better access to financial markets and reputation of foreign banks as well as better risk management techniques could be the main advantages. Hypothesis 2 was set up in that connection.

H2: Foreign banks can exploit their ownership advantages on the CEE markets.

The evaluation results of the advantages and disadvantages of foreign banks by both foreign and domestic banks are presented in Figure 2.9. Appendix 4 provides more detailed evidence of the results from the Estonian, Lithuanian, Polish and Romanian banks.

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[12] The home field hypothesis is that domestic banks perform better than foreign banks as they have better market-knowledge. Globalization hypothesis propose that multinational banks are more competitive than domestic banks.

In general, the reputation of foreign banks was evaluated as their most important advantage, followed by the range and quality of banking innovations (Estonia was an exception). The main advantages of domestic banks are better knowledge of customers and closer bank-customer relationship. These results are consistent with previous studies about the advantages and disadvantages of foreign banks.

The results of the comparative study suggest that the advantages of foreign over domestic banks are quite different in different countries. For example, Estonian foreign banks have the following significant advantages over Estonian domestic banks: 1) funding is less expensive; 2) better loan interest rates; 3) competition threat to domestic banks (see Figure 2.9). Lithuanian, Polish and Romanian respondents evaluated more highly the following foreign banks' advantages: 1) their reputation; 2) better range and quality of banking innovations; 3) better risk management.

The results support Hypothesis 2 that foreign banks can exploit their ownership advantages such as high reputation and better access to capital markets in the CEE countries. These results also support the consistency of the OLI paradigm in the CEE countries.
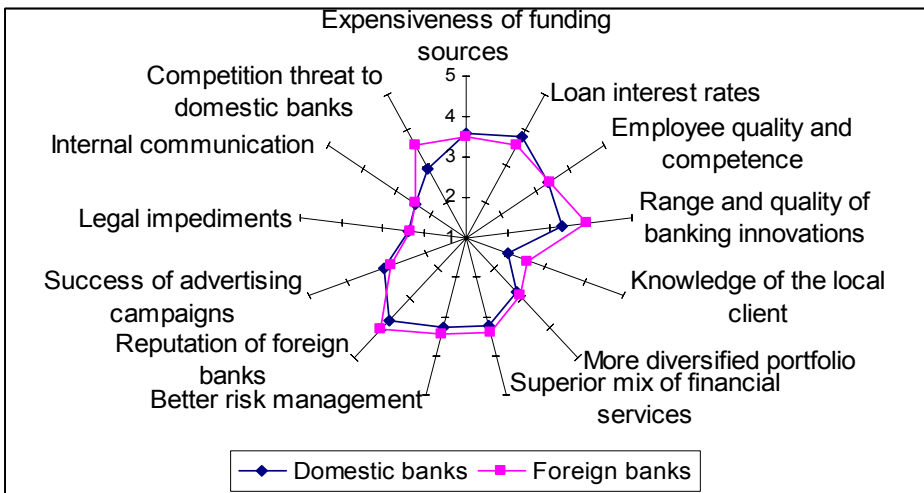
Figure 2.9. Advantages and disadvantages of foreign and domestic banks (author's figure).

One of the main negative aspects of foreign banks' entry discussed in pertaining literature is their "*cherry picking*" behavior, meaning that foreign banks concentrate only on large companies, leaving more risky small and medium-sized firms for domestic banks (see Bonin *et al* 1998, Bonin and Ábel 2000).

The results of the survey indicate that foreign and domestic banks in different countries have somewhat different target customer groups, see Figure 2.10.

The main target client groups for foreign-owned banks are as follows: large domestic companies (average 4.0 points), home country companies (3.8 points), and large exporters (also 3.8 points). Domestic banks focus on small and medium- sized enterprises, households and high-income individuals. This result confirms that foreign banks are indeed more focused on large enterprises, while domestic banks are more focused on SMEs and households. Therefore it can be concluded that "cherry picking" is foreign banks' potential behavior in the CEE countries.

Appendix 5 presents more detailed estimations obtained in different countries. The most important client groups for the domestic banks in Estonia are small and medium-sized domestic companies (SMEs) and high-income individuals (the average grade for both client groups was 4.3 points).
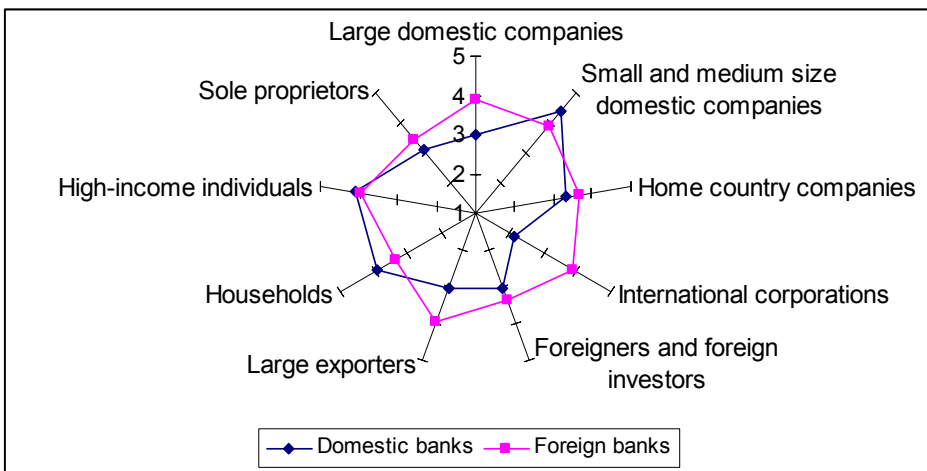
Figure 2.10. Main target groups of foreign and domestic banks (author's figure).

The main target groups of domestic and foreign banks in Poland and Romania are different from those in Estonia. Among the most important target groups of Polish domestic banks were mentioned households and high-income individuals (both 4.0 points), and also sole proprietors (3.9 points). Foreign banks' main target groups on the Polish market are domestic SMEs and high-income individuals (average grade 4.5 points) followed by large domestic companies (4.1 points). This phenomenon is quite understandable if we remember the different sizes and structures of Estonian and the other observed countries' economies. The most important target groups of Romanian domestic banks are large exporters and domestic SMEs (average grades 4.5 points), foreign banks'

home country companies, international corporations, and large exporters (average grade also 4.5 points). High-income individuals, households and domestic SMEs are the main target groups for Croatian foreign banks, i.e. these banks are, surprisingly, more oriented to retail banking activities in the host country's banking market.

The study results indicate that there are no markedly significant differences between foreign and domestic banks in the main fields of activity (see Figure 2.11). The detailed country data are presented in Appendix 6. The differences are greater in different countries' markets and banking activities *depend more largely on country-specific factors*. In Estonia, the specific banking activities are not very essential because all active banks in Estonia are universal banks. However, corporate financing is the most important field of activity for both domestic and foreign banks (the average grade 4.3). Foreign exchange trading, cash and assets management and capital market transactions were mentioned by Estonian domestic banks among the more important other fields of activity.
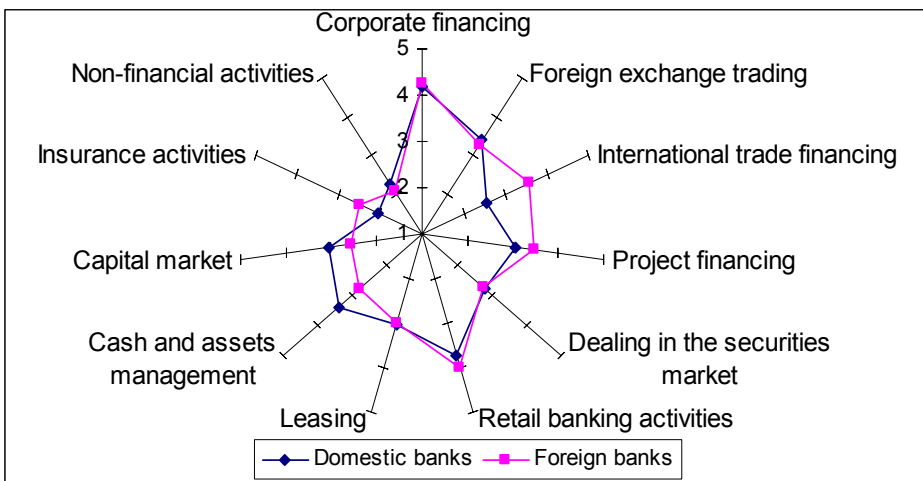
Figure 2.11. Main fields of activity of foreign and domestic banks (author's figure).

As different from the Estonian case, Polish and Romanian domestic and foreign banks evaluated corporate financing and retail banking activities more highly (average grade 4.0 points). Also, project financing was evaluated highly by both domestic and foreign banks of Romania. It is quite interesting to mention that while Estonian domestic and foreign banks evaluated non-financial activities quite highly (grade 3.0 and 3.3 points), it was not done by Polish and Romanian domestic and/or foreign banks.

It seems that Estonian banks are more universal in their activities – they are also more actively participating in leasing, capital market, and insurance activities than their Polish and Romanian counterparts. The Croatian respon-

dents, on the other hand, evaluated retail banking activities, corporate financing and international trade financing as the main fields of foreign banks' activity in Croatia.

The strategies of all the responding foreign banks foresee a long-term stay on the Estonian and Romanian banking markets (see Figure 2.12 and Appendix 7). Among the most important motives for their stay (both on the Estonian and Romanian markets) were mentioned good future perspectives for the development of the local client base (average grade 4.00 points), and good future perspectives of doing business with the home country clients (3.85 points).
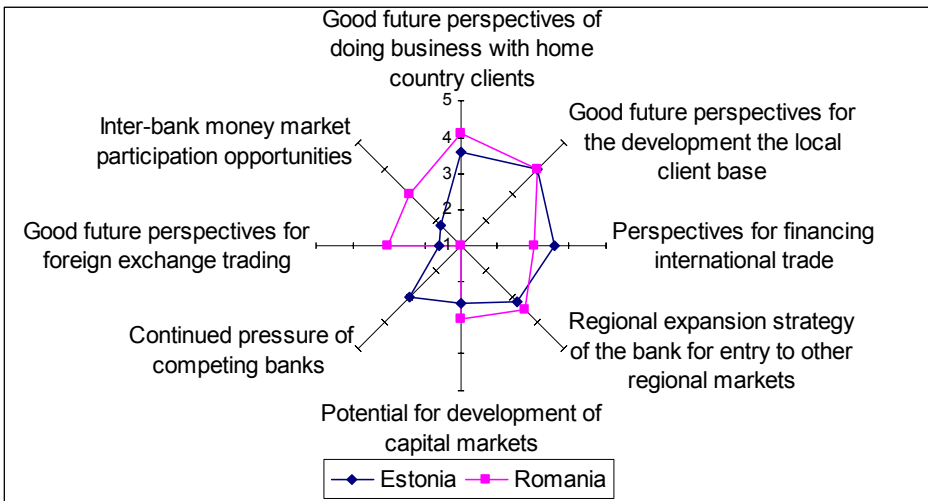
Figure 2.12. Foreign banks' motives for long-term stay on the Estonian and Romanian markets (author's figure).

Quite limited information was received from the respondents about the general sectoral structure of both domestic and foreign banks' direct investments and participation in the boards of targeted firms. For example, only a few Estonian respondents mentioned investments into leasing and insurance (the financial sector), and one respondent spoke of investments into manufacturing industries, trade and other services (the non-financial sector). Also, some banks admitted having representatives in boards of firms belonging to either the financial and non-financial sector. Only one domestic bank reported having 100% control over the targeted leasing firm. The average proportion of foreign clients' deposits in total deposits was reported to be about 20%, and the average share of foreign clients' credits in total credits was reportedly about 5%.

All banks in Estonia and Romania use the German-type two-tier board model for bank governance. The total number of the Managing Board members varies in foreign-owned banks from 3 to 10, and in domestic banks from 3 to 5.

The Managing Board consists mainly of executive directors. One domestic bank reported also having in its Managing Board representatives of private share-holders and a non-executive director. The total number of Supervisory Boards members in Estonian foreign banks varies from 6 to 10, in domestic banks from 5 to 6 members. One Estonian majority foreign-owned bank provided the exact structure of its Supervisory Board as follows: 5 institutional shareholders, 4 consumer representatives, and 1 private shareholder (the total number of the Board members being 10). The Supervisory boards of domestic banks mostly involve institutional and private shareholders.

Some Estonian and Romanian foreign-owned banks (or representative offices of foreign banks) and domestic banks disclosed information about who make key strategic decisions in the bank (see Tables 2.3 and 2.4). As a rule, in foreign-owned banks the main strategic decisions (especially working out general strategic policies and/or capital policy) are either taken by its mother bank, or by its own Managing Board alone or together with the Managing Board of the mother bank.. In domestic banks, the shareholders' assembly and the Managing Board is playing the key role in strategic decision-making. It is quite interesting that Estonian and Romanian respondents gave quite different answers to this question.

Table 2.3. The Main Decision-Makers in Foreign Banks (% of respondents)

The main decision-maker	General strategic policies		Capital policy		Dividend policy	
	ES	RO	ES	RO	ES	RO
The "mother" bank	37	60	50	40	75	80
Shareholders' assembly	9	–	–	–	–	–
Supervisory board (SB)	9	–	10	30	–	20
Managing board (MB)	18	20	20	15	25	–
SB and MB	9	20	10	–	–	–
MB and "mother" bank's MB	18	–	10	15	–	–

Source: Uiboupin and Vensel 2002.

Table 2.4. The main decision-makers in domestic banks (% of respondents)

The main decision-maker	General strategic policies		Capital policy		Dividend policy	
	ES	RO	ES	RO	ES	RO
Shareholders' assembly	34	60	25	40	25	60
Supervisory board (SB)	34	15	–	15	–	31
Managing board (MB)	16	15	75	15	25	10
SB and MB	16	10	–	30	50	–

Source: Uiboupin and Vensel 2002.

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The share of high-level foreign managers in foreign-owned Estonian banks was reported by 2 banks to be about 10–12% (note that 2 banks reported this share to be only 1%), very few of them having prior experience in transition countries. Quite surprisingly, also one domestic bank reported the share of foreign managers to be about 20%, and about 20% of them having prior experience in transition countries.

The know-how transfer by foreign direct investments is one of the key factors for FDI in transition economies. There are several studies that have analyzed the possible transfer of know-how upon foreign banks' entry (see Glass and Saggi 1998, Goldberg *et al*., 2000; Doukas *et al*., 1998). The author of the present paper believes that the transfer of know-how is likely to be very important in transition countries because foreign banks usually enter into a market during the crisis or right after the crisis when all bad risks have just realized and new risk management techniques are required to rehabilitate the bank.

H3: There is a transfer of know-how from parent banks to foreign banks and a spillover effect of this knowledge transfer on domestic banks.

The evaluations of the adoption of the various mother bank's policies, systems and management techniques contained within the responses provided by Estonian and Romanian foreign-owned banks are presented in Figure 2.13 (see also Appendix 8). Risk management techniques, cost management and credit policy methods were evaluated by respondents as the most relevant adjustments to those of the mother bank. In general, all the listed adjustments were evaluated quite highly and we can conclude that the mother bank's impact on the foreign-owned bank's operation is relatively high.

The transfer of various know-how from foreign banks has been important, especially for foreign-owned banks' management (see Figure 2.14). The transferred know-how about interest rates, solvency and credit risks management techniques was evaluated by respondents most highly (over 4.0 points by Estonian foreign banks' respondents). Liquidity risk management techniques, information systems, credit policy and personnel policy transfer from foreign banks was also evaluated quite highly by Estonian domestic banks. On the other hand, the average grades given by the responding Polish domestic banks were somewhat different: the transfers of information systems and banking services/products mix policy were considered as the most important know-how transfers from foreign banks (4.3 and 4.2 grades, respectively (see Appendix 8)). This difference between Estonia and Poland can be explained by the technology gap argument. Electronic banking and up-to-date computer techno-logy are considered to be at a much higher level in Estonia than in the other CEE countries and therefore additional ICT know-how transfer from mother banks has not been so relevant. It is even argued that the Estonian e-banking system is more advanced than the corresponding systems in many developed EU countries.
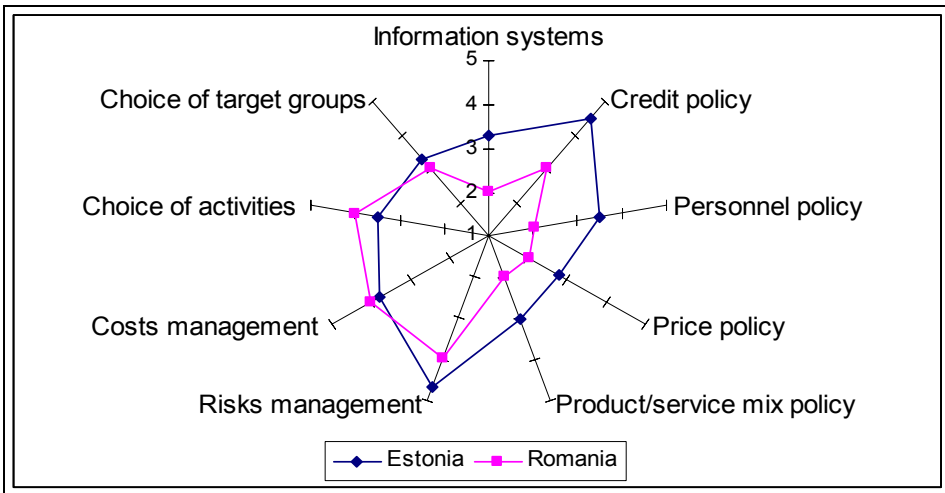
Figure 2.13. Evaluations of the adoption of mother bank's policies and systems **(**author's figure).
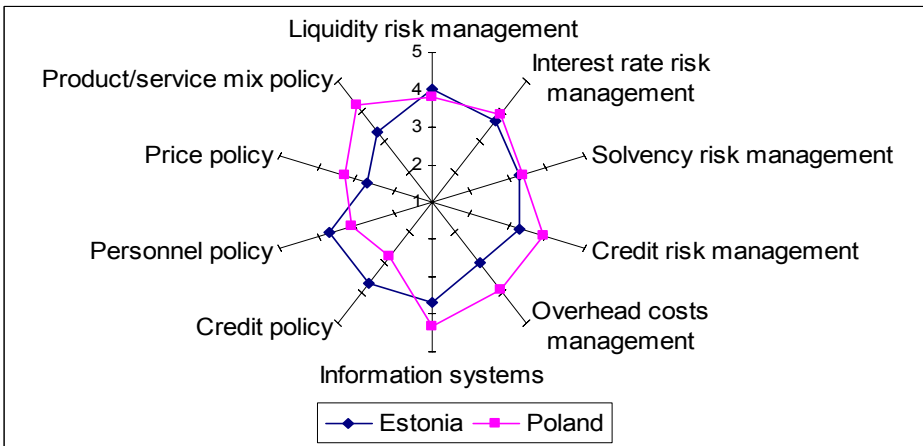
Figure 2.14. Relevance of the transfer of know-how from foreign banks (author's figure)

As hypothesized, the relevance of risk management techniques in general know-how transfer is very important. Hypothesis 3 is supported by the survey analysis. As it was discussed in Section 1.3, the lack of risk management systems at the beginning of the transition to market economy generated a gap that foreign banks could fill with technology transfer.

The assistance in borrowing from international markets and the financial assistance in times of crises or other financial troubles were evaluated by the Estonian respondents as the most important forms of assistance rendered by the mother bank (4.3 and 4.0 grades, respectively; see Figure 2.15, Appendix 10). All the other listed assistance forms were also ranked quite highly, so it can be inferred that the mother banks in general support Estonian foreign-owned banks' operations and activities at the market quite substantially. This conclusion is very important, if we take into account the openness of the Estonian economy, its sensitivity to external shocks, and the small scale of the Estonian market.
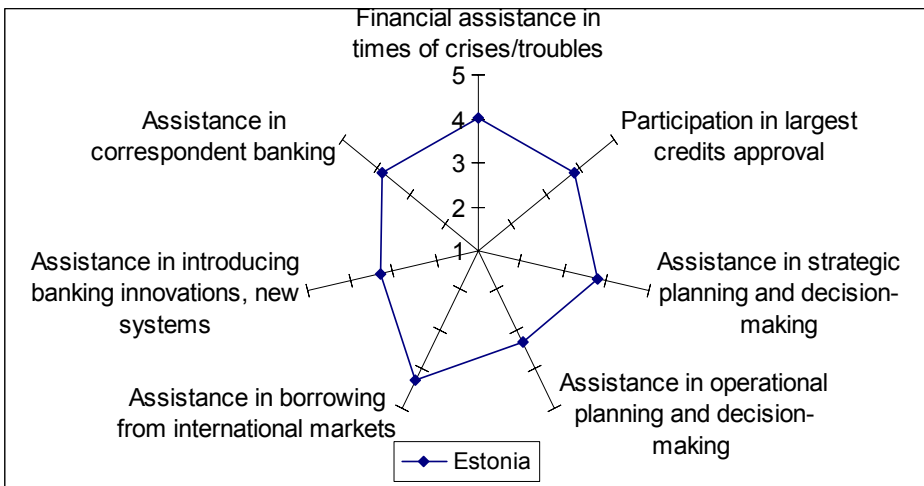
Figure 2.15. The mother bank's assistance and participation in decision-making (author's figure).

The impact of foreign banks' entry into the observed CEE banking markets (as evaluated by the responding domestic banks) is presented in Figure 2.16.

The results show that foreign banks' entry significantly intensified the overall competition in the banking market (average grade 4.0 points in Estonia and Romania, 4.5 in Poland), reducing the domestic banks' profitability and efficiency of operation. All other impacts were evaluated by Estonian respondents as unimportant, among them, surprisingly, even corporate governance of private firms (average grade only 1.7 points) (Appendix 11).
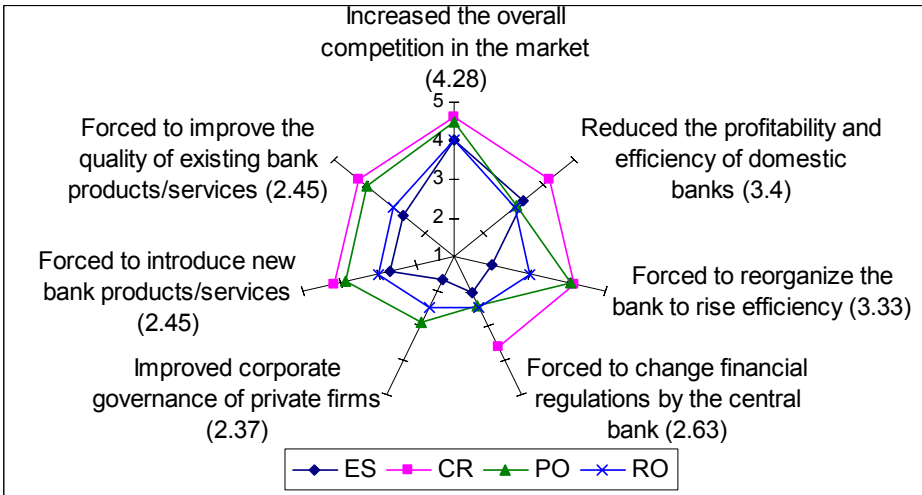
Figure 2.16. Impact of foreign banks' entry into the host country's market (ES – Estonia, CR – Croatia, PO – Poland, RO – Romania) (author's figure).

Polish respondents were of the opinion that foreign banks' entry significantly forced banks to reorganize their internal structure in order to raise efficiency (4.1 points), as well as to introduce new banking services/products and improve the quality of the existing banking products and services (both 3.9 points). It is quite interesting that the Croatian respondents evaluated the impact of foreign banks' entry into the Croatian banking market more highly than the respondents from other countries.

It is interesting to note that the average effects of foreign banks' entry were clearly different in different countries. It can be seen in Figure 2.16 that the importance of different impacts of foreign entry in descending order is as follows: Croatia, Poland, Romania and finally Estonia. Seemingly, the general effect of foreign banks depends on market-specific factors. The Estonian banking market is comparatively more highly developed and so the overall effect of foreign banks has been evaluated to be lower. Therefore, the technology gap hypothesis seems to hold.

The aim of the present survey was not to directly estimate the effect of foreign banks' entry on local banks' performance and competition, but rather to ask about the stakeholders' overall opinions about the banks' internationalization. Nevertheless, it can be concluded that the results obtained from the survey are consistent with the hypotheses that were set up to analyze the effects of foreign banks' entry on banking performance in the CEE countries. Hypothesis 5 is supported by the survey results. The impact of foreign banks' entry on the performance of the domestic market will be more deeply analyzed in Section 2.3.

The responding domestic banks' evaluations about the degree of competitive pressure resulting from foreign banks' entry are given in Figure 2.17.

Quite clearly, here long-term loans to first-class business clients (average grade 4.4 points) dominated among the other market segments. Mortgage loans to households (average grade 4.0 points) were mentioned as the most important market segments on the Estonian banking market that were influenced by the pressure from foreign banks. The Lithuanian, Polish and Romanian respondents' evaluations were somewhat different: short-term loans to first-class business clients were mentioned as the more important competitive market segment (average grades respectively 4.0, 4.2 and 4.0 points). The Romanian respondents ranked highly also long-term loans to other business clients and demand deposits of business clients (Appendix 12).
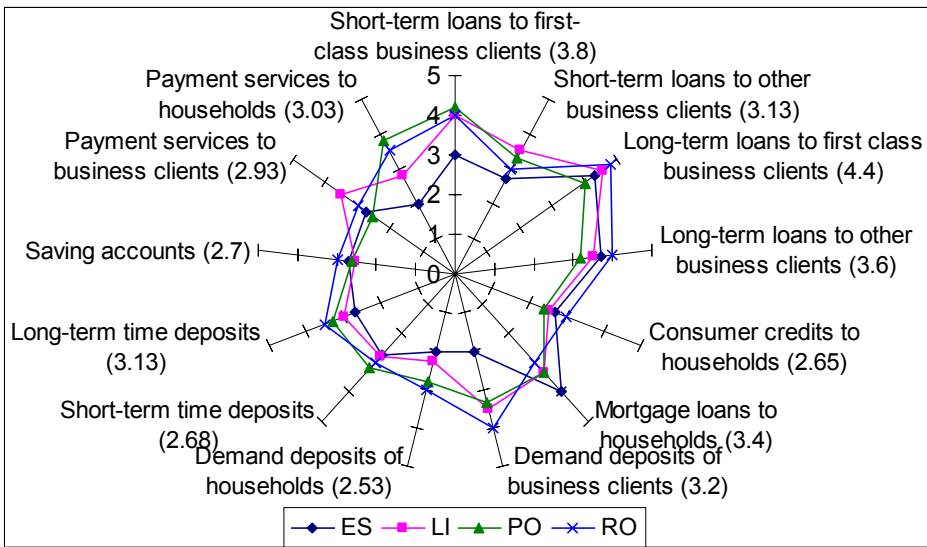
Figure 2.17. The degree of competitive pressure from foreign banks (ES – Estonia, LI – Lithuania, PO – Poland, RO – Romania)(author's figure).

The responding Estonian and Lithuanian domestic banks are very optimistic about the prospects of their future independent survival, the Estonian banks even in a long-term perspective (see Figure 2.18). The evaluated prospects of merging with a foreign bank and/or selling the majority of ownership to a foreign partner are much higher in comparison with merging with a domestic bank and/or selling the majority of ownership to a domestic partner, especially in the long-term perspective (average estimates respectively 4.5 and 4.5 points, and 3.0 and 2.0 points). No responding domestic banks of the countries involved see any prospects of a hostile minority or majority stake-bid by a foreign bank.

On the other hand, the Polish and Romanian domestic banks were less optimistic. Merging with another domestic bank was evaluated by the respondents as the most likely mid- or long-term prospect and the scenario for

Polish and Romanian domestic banks (3.8 and 3.6 points, respectively, given by the Polish and 3.0 by the Romanian respondents) (see Appendix 13). All other prospects were evaluated as being rather unlikely. But surprisingly, the Romanian domestic banks also estimated their independent survival prospects to be quite high in a long-term perspective (4.0 points).
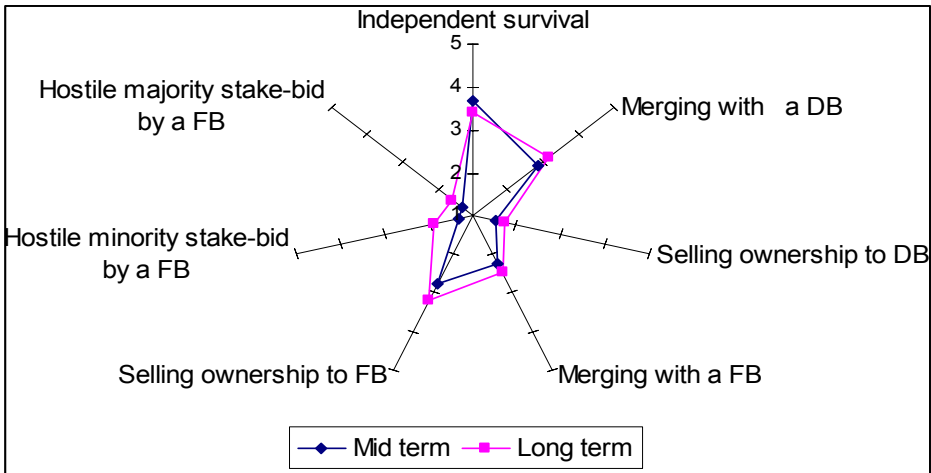
Figure 2.18. Evaluations of the prospects of independent survival (author's figure).

The general conclusion of the conducted survey is that the motives and impacts of foreign banks' entry that are suggested by theoretical literature about banks' internationalization also obtain in the CEE countries. It is important to note that country-specific factors seem to be important when describing the impact of foreign banks' entry. Therefore it can also be concluded that there exists a diversity among the banking markets in the CEE countries.

In summary, Hypotheses 1, 2, 3 and 5 of the dissertation were supported by the survey (see Table 2.5 below).

Table 2.5. Validity of hypotheses about entry motives and effects

Hypothesis	Number	Validity
Motivation	1	Supported
Ownership advantages	2	Supported
Transfer of know-how	3	Supported
Effect on profitability	5	Supported

Generally it can be said that the hypotheses explaining the internationalization process of banks were well supported. All the hypotheses that were formed to control the validity of the theoretical framework developed in Chapter 1.3 were

supported. The results indicate that the integration of the OLI paradigm and FL framework presented in Figure 1.7 is suitable for explaining the entry process of foreign banks into CEE markets.

The dominating entry motive of foreign banks has been market seeking, whereas the timing of market entry was set to crisis periods when the locational and ownership advantages were the highest. The banking crises in the CEE countries have created additional pull-factors for foreign banks' entry. Foreign banks can use their ownership advantages, such as their higher reputation, better quality of banking services, and lower loan interest rates. The survey results indicate that there has also been significant transfer of risk management know-how from parent banks into their subsidiaries and branches operating in the CEE countries, which has given them additional ownership advantages.

2.3. The effect of foreign banks' entry on bank performance in the CEE countries

2.3.1. Performance indicators of foreign and domestic banks in the CEE countries

Over the last five years, the effects of foreign banks' entry have been inten-sively empirically researched both in the developed and developing countries. The liberalization of the banking markets in transition economies followed by foreign banks' entry has raised interesting questions about how the inter-nationalization of banks affects the performance and stability of the banking sectors in the CEE countries.

In what follows the trends of main performance indicators of foreign and domestic banks in different countries during 1995–2003 will be discussed. The average level of the return on assets (ROA) of foreign and domestic banks in 1993–2003 is presented in Figure 2.19.

Figure 2.19 shows that the ROA of domestic banks has been negative in Lithuania, the Czech Republic, Latvia and Slovakia. In Croatia, the foreign banks' ROA level is statistically significantly higher, being mainly positive with the average value of 1%, while the average ROA of domestic banks is 0.5%. The t-test calculated in Appendix 21 shows that in the period 1993–2003 foreign banks had a statistically significantly[13] higher level of ROA. The result shows that foreign banks are generally more profitable than domestic banks.

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[13] The significance is calculated at 5% level
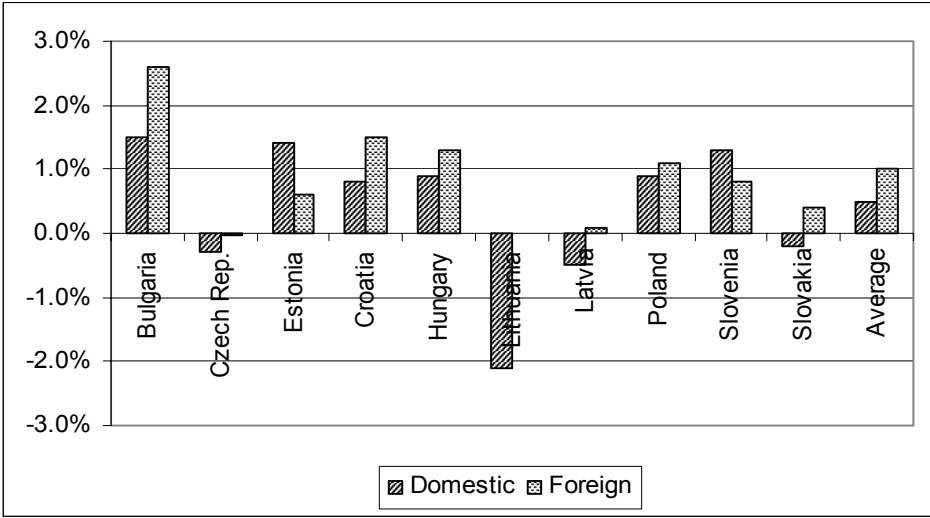
Figure 2.19. Average ROA of foreign and domestic banks 1993–2003 (market shares in total assets are used as weights) (author's calculations).

Figure 2.20 features the average return on equity (ROE) of foreign and domestic banks in the CEE countries. The calculations show that the average ROE of foreign banks over the period 1993–2003 was 13% compared to the only 5% for domestic banks, the difference being statistically significant (see Appendix 22).
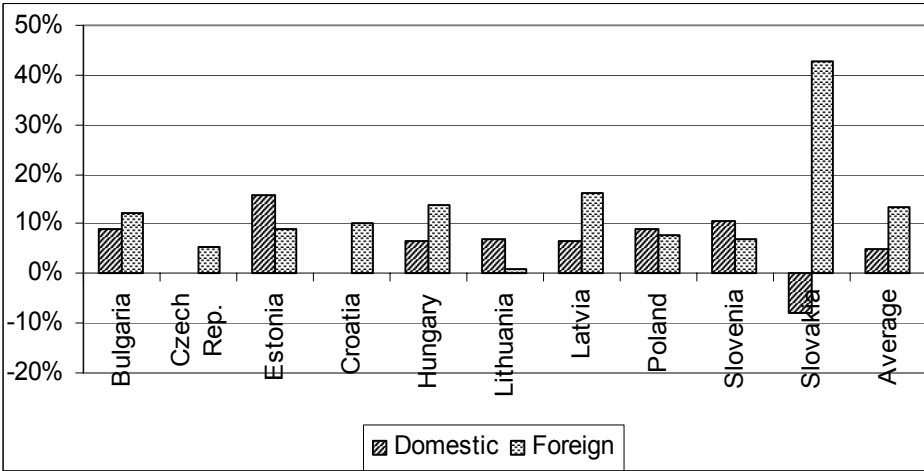
Figure 2.20. Average ROE of foreign and domestic banks 1993–2003 (market shares in total assets are used as weights) (author's calculations).

In Slovakia, Hungary and Slovenia, foreign banks have a statistically significantly higher level of ROE. In Estonia and Slovenia foreign banks have a lower level of ROE, but the difference is not statistically significant. The general conclusion of profitability measures is that foreign banks generally outperform domestic banks in the CEE countries.

Figure 2.21 shows the average net interest margins (NIM) of foreign and domestic banks over the period 1993–2003. Interest margins are considered to be indicators of the overall banking competition (Levine 2003). The results show that the average NIM of foreign banks has been lower, the average values being 4.6% for foreign and 4.9% for domestic banks. The difference is statistically significant at 10% level. Domestic banks have statistically significantly higher NIM in Poland and Slovakia (t-values being 4.66 and 1.72, respectively) (see Appendix 23). Bulgaria and Poland have the highest average NIM. The banking sector in Bulgaria is quite underdeveloped by comparison with other countries, therefore high NIM is quite expected. The high level of NIM in Poland can be explained by the relatively high concentration of the Polish banking market.

Another efficiency measure used to characterize the performance of the banking sector is the ratio of overhead costs to total assets (OHTA). Overhead costs comprise all non-interest costs except taxes. OHTA thus measures the cost-efficiency of banks. Foreign banks often use modern and more expensive technology and their salaries are often higher than those paid by domestic banks. Therefore it is likely that foreign banks have a higher OHTA. At the same time, foreign banks are considered to be more effective due to scale effects as they are usually bigger. The average OHTA values of the foreign and domestic banks involved are given in Figure 2.22.
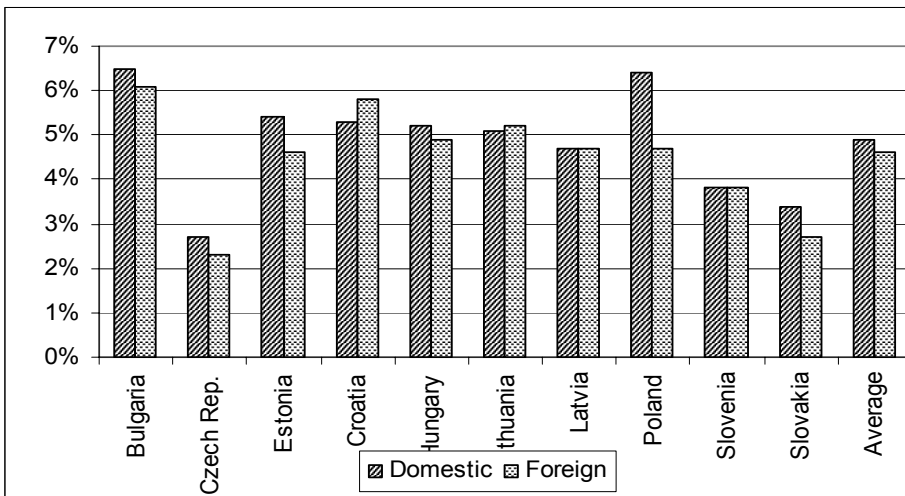
Figure 2.21. Average NIM of foreign and domestic banks 1993–2003(market shares in total assets are used as weights) (author's calculations).

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Figure 2.22 shows that quite surprisingly foreign banks have a lower OHTA ratio in all the countries involved and the average value is statistically significantly lower than that of domestic banks (t-value is 1.77, Appendix 24). The average OHTA values are 5.2% for foreign banks and 5.8% for domestic banks. Therefore it can be concluded that foreign banks are generally more cost-efficient. Cost efficiency is the lowest in Bulgaria and highest in Slovenia and the Czech Republic.
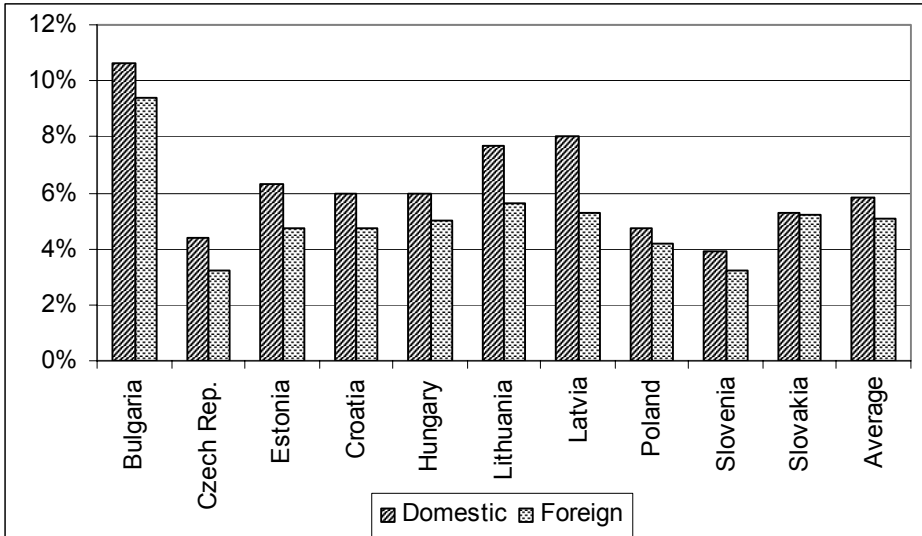
Figure 2.22. Average OHTA of foreign and domestic banks 1993–2003 (market shares in total assets are used as weights) (author's calculations).

Figure 2.23. reflects the main trends of bank-specific performance indicators of domestic and foreign banks for the period 1996–2003, showing that the return on assets of banks in the CEE countries is slightly increasing over time. The net interest margins are falling but the costs are falling as well. Therefore it can be concluded that the banking markets in the CEE countries have become more effective. The return on equity has been very volatile as a result of financial leverage. In periods of crisis, the return on equity falls significantly. For calculating the ROE, bank market shares are used as weights. There are several banks that have negative equity values during a banking crisis, usually small banks that are more vulnerable, therefore it is reasonable to calculate the weighted average of ROE. Figure 2.23 shows that the ROE has decreased over time.
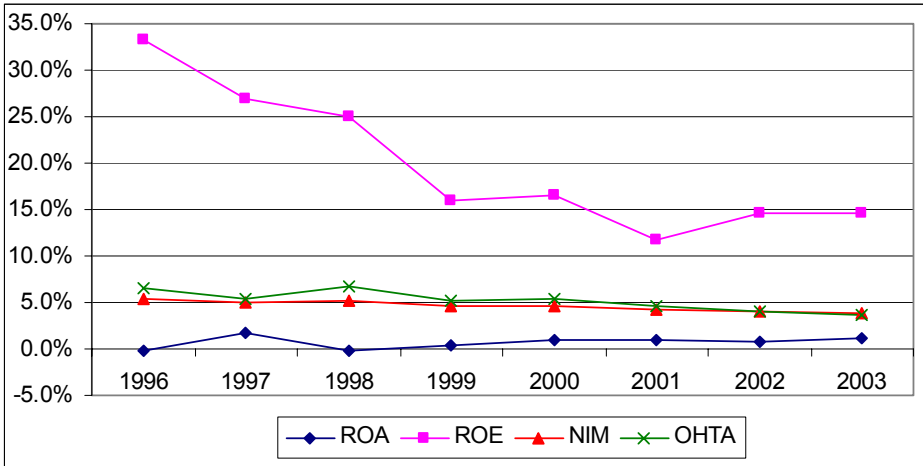
Figure 2.23. Performance indicators of banking markets in the CEE countries (market shares in total assets are used as weights) (author's calculations).

2.3.2. The data and estimation methodology

The study covers data from the period 1995–2001 for 10 countries: Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, and Slovenia. The annual data are categorized in the following subgroups: bank- level accounting data, foreign bank entry data, country-specific variables and banking market development data. A detailed description of all the variables used in the analysis is given in Appendix 14.

The bank-level accounting data were obtained from the BankScope database. Herein a unique panel dataset is used that contains the accounting data of 319 banks for the period 1995–2001 combined with country-specific variables. The complete list of banks in the sample is given in Appendix 28.

Several balance sheet and profit statement variables are used. Firstly, two variables are used to measure the income of banks: the net interest margin (NIM)[14] and non-interest income to total assets (OOITA). Secondly, the profitability of a bank is characterized by the before tax profits to its total assets (PTPTA). Thirdly, bank costs are measured by two variables: overhead costs to total assets (OHTA) and loan loss provisions to total assets (LLPTA). These variables are calculated from a bank's income statement and balance sheet. I use the following internationally comparable accounting identity:

$$PTPTA = NIM + OOITA - OHTA - LLPTA \qquad (1)$$

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[14] Here calculated as the ratio of net interest income to total assets.

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The bank-specific exogenous variables are the following: short-term and long-term deposits and other funding to total assets (CSTFTA), equity ratio to total assets (ETA) and non-earning assets to total assets (NEATA). The overview of the trends of the dependent variables is presented in Figure 2.24.
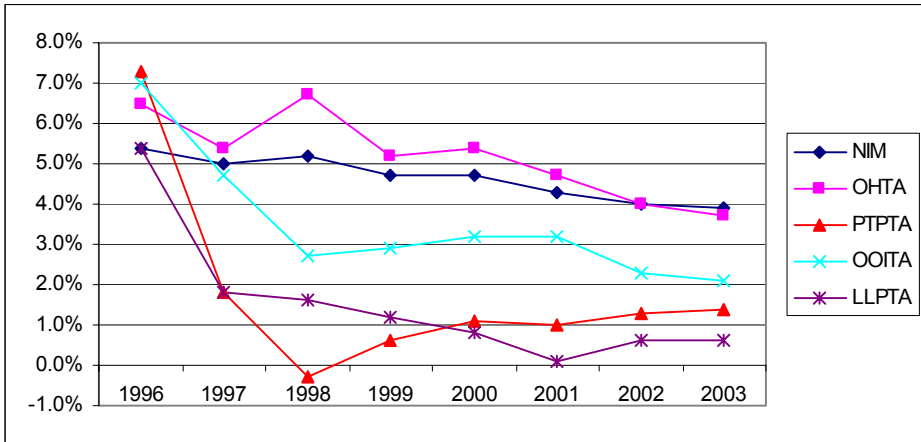
Figure 2.24. Dependent variables for 1996–2003 (market shares in total assets are used as weights) (author's calculations).

Figure 2.24 shows that the dependent variables NIM, OHTA and OOITA have a downward slope, while the trend is not so clear for PTPTA and LLPTA. According to accounting equation 1, PTPTA is the sum of other dependent variables. PTPTA is slightly growing since 1998 because of the faster falling loan losses and overhead costs compared with OOITA and NIM.

Two different foreign entry variables are used: the share of foreign banks' assets in the total banking market assets (FSA), and the ratio of foreign banks to the total number of banks (FBSN).

Since Bankscope covers about 90% of the banks on the market, and the precise ownership structure of a bank is described only in the last reporting period, it is not possible to calculate foreign ownership by the aggregate data of the reporting banks, because of the danger to overestimate or underestimate foreign ownership on the market. The possibility to overestimate foreign ownership comes from the fact that foreign banks are more active internationally and likewise provide data more actively in Bankscope. The possibility to underestimate foreign ownership in some countries is also quite high because Bankscope does not cover the branches of foreign banks, and therefore in case of those countries where the bank market share of foreign branches is high, there is an underestimation of foreign ownership on the market. Admittedly, the data problem is more relevant for small countries like Estonia, Latvia and Lithuania, where the number of banks is small, and the absence of even two or

three banks from the database may significantly change the data on foreign ownership.

To overcome the above problems, I used different sources: the foreign banks' share in total assets (FSA) data was obtained from Bankscope and the national central banks, and the foreign banks' share in the total number of banks (FBSN) was obtained from the EBRD Transition Reports 2003.

In this section, I use different bank-level and macro-level data to investigate the relationship between foreign banks' entry and the performance of banks in the host country. A bank is defined to be foreign if it is at least 50 percent foreign-owned, i.e. more than 50 percent of its share capital is owned by foreign residents.

In empirical estimations the domestic private credit to the GDP (DCGDP) is used as proxy for banking sector development in a given country (see Hermes and Lensink 2003). Figure 2.25 shows that DCGDP is quite well suited to characterize banking market development. Firstly, almost in all countries private credit to the GDP has risen over time in connection with banking market evolution. Secondly, except for Bulgaria and the Czech Republic, there are no significant drawbacks in DCGDP that could lead to a situation where, for example, at the beginning of the 90s crediting is high, then after a banking crisis the DCGDP falls and in 2002 the DCGDP ratio is the same as in 1995, which suggests that the banking market has not advanced during 5 years, whereas actually the development has been significant.
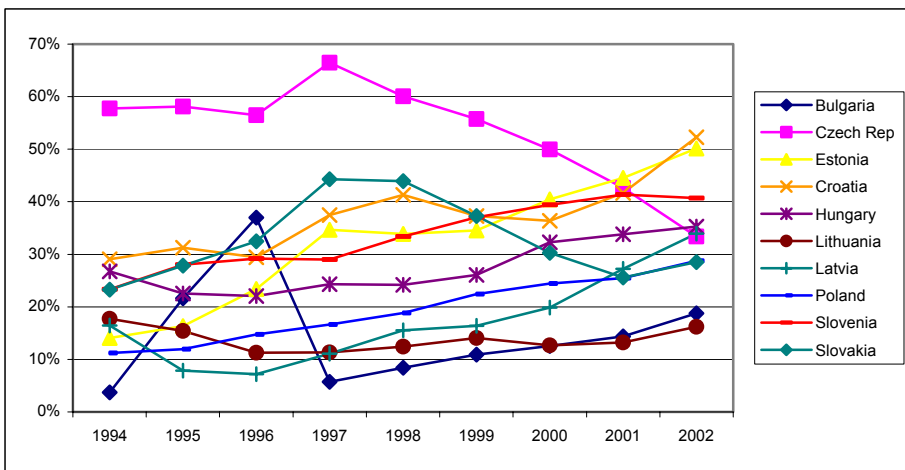
Figure 2.25. Private credit to the GDP (DCGDP) in 1994–2002.
Source: IFS 2003 (author's calculations).

Figure 2.26 demonstrates the EBRD (European Bank for Reconstruction and Development) banking sector's development indexes for the CEE countries. According to the EBRD, the development of the banking sector in the Czech

Republic has been significant, although private credit fell because of recession of the whole economy at the end of the 90s, and stricter credit policy. According to the EBRD Transition report 2002, the best developed banking sector among the CEE countries is in Hungary, significantly less developed banking markets being those of Lithuania and Bulgaria. Compared with 1993, the banking sector has developed most rapidly in Latvia and Croatia.
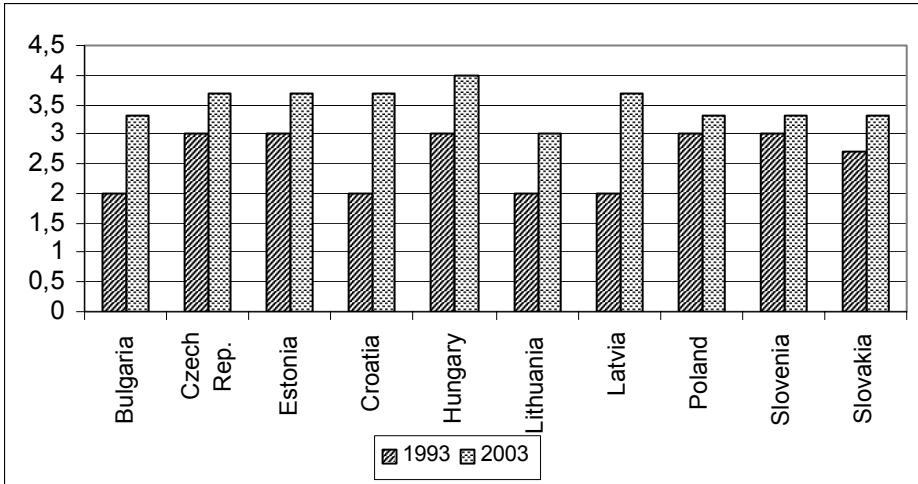
Figure 2.26. The EBRD banking index of the banking sector reform.
Source: Transition Report 2004 (author's figure).

In empirical estimations, a proxy for banking market concentration is often used to describe the market situation. According to the database composed by Asly Demirgüç–Kunt, there has occurred quite remarkable de-concentration on the banking markets of the CEE countries (see Table 2.6). The author suggests that this trend could be somewhat misleading, because it is based on the Bankscope database, where at the beginning of the 1990s many banks were not reported, which is why the calculations may give higher concentration rates. Therefore it could happen that the estimation results about banking concentration are not significant or have the other sign than expected.

Three country-specific variables are used. Similarly to Claessens *et al* (2001), Hermes and Lensink (2003) and Zajc (2004) I use the real GDP growth (GDPG), GDP per capita (INCOME, in logarithm) and inflation rate (CPI) as indicators of macroeconomic development. All country variables originate from the EBRD Transition Report 2002. The sample is unbalanced because of the lack of data for some banks in some periods due to mergers and bankruptcies. The number of observations varies between 884 and 1041.

Table 2.6. The concentration index as the share of three biggest banks in the total banking market assets (CONC) (percentages)

Country	1994	1995	1996	1997	1998	1999	2000	2001
Bulgaria	87.3	70.9	78.1	69.2	55.3	56.1	52.6	51.6
Czech R.	55.3	46.7	43.1	43.3	37.7	43.7	52.7	47.6
Estonia	84.3	57.9	53.0	50.5	75.8	77.0	78.0	80.5
Croatia	72.9	67.3	60.9	53.3	58.8	52.4	51.5	50.7
Hungary	56.8	43.5	44.0	49.4	38.5	36.3	33.3	36.0
Lithuania	92.1	69.4	51.0	50.8	58.9	70.9	69.4	67.2
Latvia	61.6	44.1	41.9	41.6	49.8	46.3	39.3	35.3
Poland	48.0	42.7	45.4	39.6	38.4	39.0	33.3	36.9
Slovenia	68.7	53.8	47.6	48.2	48.2	43.6	47.4	56.2
Slovakia	83.5	78.4	69.0	59.0	49.4	57.5	56.4	60.6
Average	71.1	57.5	53.4	50.5	51.1	52.3	51.4	52.3

Source: Asly Demirgüç–Kunt, Financial Structure and Economic Development Database, World Bank, [http://www.worldbank.org/research/projects/Finstructure/ database.htm].

Next I will explain the economic intuition of regressions explaining the influence of foreign banks' entry on the host banking market. I use one period model to analyze the effects of foreign entry on banks' performance.

Suppose that foreign banks' share (FS) on the market at time t_0 is FS_0, so that $0 \le FS_0 < 1$. Foreign banks have motives to enter a particular market. If the initial foreign bank share is zero, then the foreign entry can be interpreted as the result of a removal of entry barriers. The conception of the model is illustrated in Figure 2.27.
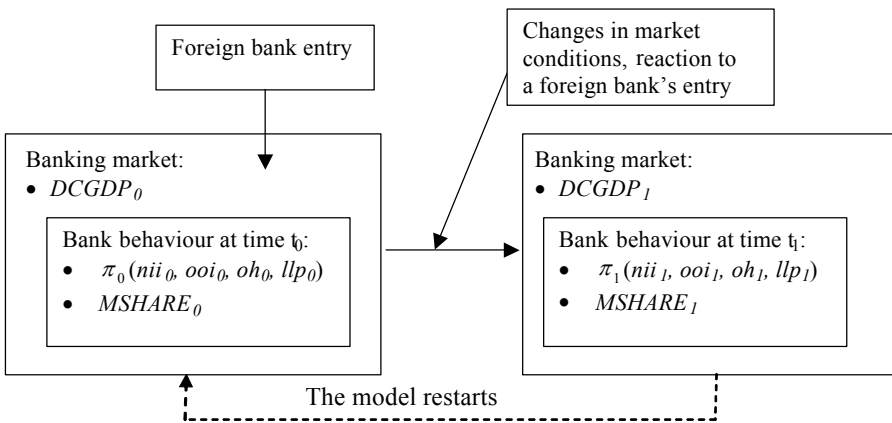
Figure 2.27. The economic intuition of foreign banks' entry effects on host banking market (compiled by the author).

At time t_0 the banks have adopted their strategies to maximize their profits π_0 in the market conditions from previous times that are exogenously given. A bank's profit depends on its costs and incomes:

$$\pi = nii + ooi - oh - llp$$

where
    nii – net interest income;
    ooi – non-interest income;
    oh – overhead costs;
    llp – loan loss provisions.

Now suppose that foreign bank(s) enter the market. It is defined as the difference between FS_1 (foreign share in terms of numbers or assets) and FS_0. It is assumed that the foreign banks' entry motives are from previous periods (market seeking, customer following, or other motives). Their entry affects the market conditions. Local banks (both foreign-owned and domestically owned) may react to this foreign banks' entry. If local banks are reacting to foreign entry, then the components of their profit in period t_1 will differ from those in time t_0, because banks change their cost structure and prices to be competitive and maximize their profits.

Local banks may not react to foreign banks' entry, but their activity is nevertheless affected by the entrance because of competition in the oligopolistic market. It is also assumed that the period between t_0 and t_1 is long enough, so that banks are able to react to foreign entry if they find it beneficial. Bank profit is also affected by macroeconomic factors, but it is assumed that those effects are the same for all banks operating on the market. *Ex post* it can be said that local banks are affected by foreign entry if at least one component in the profit equation has changed. At t_1 the model may restart, new foreign banks will enter and banks will again reorganize their activities to maximize their profits.

Next I will try to test empirically the short-term relationship between foreign banks' entry and bank performance. I will start with an empirical model adopted from Claessens *et al* (2001):

$$\Delta I_{ijt} = \alpha_0 + \beta_j \Delta FS_{jt} + \delta_{ij} \Delta B_{ijt} + \gamma_j \Delta X_{jt} + \varepsilon_{ijt} \qquad (2)$$

where I_{ijt} is a dependent variable for bank i in country j at time t, FS_{jt} is a measure of foreign bank penetration in country j at time t, B_{ijt} is a set of bank-specific variables for bank i in country j at time t. Δ is the one period difference operator. B_{ijt} is included into the equation as a set of control variables. X_{jt} is a vector of country variables in country j at time t.

Next the initial empirical model is developed further by adding banking market development variables and an interactive term of foreign bank entry and banking market development. The same methodology was first used by Hermes and Lensink (2003). The model with banking sector development and interactive term is as follows:

$$\Delta I_{ijt} = \alpha_0 + \beta_j \Delta FS_{jt} + \gamma_j \Delta FS_{jt} \times DCGDP_{jt} + \delta_{ij} \Delta B_{ijt} + \varphi_j BMD_{jt} + \varepsilon_j \Delta X_{jt} + \varepsilon_{ijt}$$

(3), where $DCGDP_{jt}$ is a proxy for banking market development in country j at time t, $FS \times DCGDP$ is a variable that has been created by interacting the foreign bank entry variable with the banking market development variable.

The interactive term is included to test if foreign entry effects in a particular country depend on the level of development of the banking market of that country. I assume foreign bank entry to have a more relevant impact in early stage of internationalization and to be lower when the banking market of the target country is well-developed. It may by even the case that the sign of the coefficient of FS changes from negative to positive or vice versa.

Finally, an interactive term of foreign bank entry and bank market share is included into the equation. It may be that banks with different market shares react differently to foreign banks' entry. I suggest that smaller banks react more noticeably to foreign entry, because they are more flexible to changes in market conditions and have to adjust themselves more readily to be competitive. The model runs as follows:

$$\Delta I_{ijt} = \alpha_0 + \beta_j \Delta FS_{jt} + \gamma_j \Delta FS_{jt} \times MSHARE_{jt} + \delta_{ij} \Delta B_{ijt} + \varphi_j BMD_{jt} + \varepsilon_j \Delta X_{jt} + \varepsilon_{ijt} \quad (4)$$

where $FS \times MSHARE$ is a variable that has been created by interacting the foreign bank entry variable with the banking market development variable.
Two variables are used to measure foreign banks' presence: the number of foreign banks as the share of total number of banks (FBSN) and foreign banks' share in the total banking market assets (FSA). I also use the interactive terms with private credit to the GDP (DCGDP) and the bank market share (MSHARE). Five bank performance measures are used (ALINT (interest income to interest-earning assets), PTPTA, OOITA, OHTA and LLPTA) as dependent variables. Stata SE 8 is used for estimations.

By comparison with Claessens *et al* (2001), who used a fixed effects model, I have a different methodology for estimating the regression coefficients. I use Arellano-Bond's linear, dynamic panel data estimation.

Arellano-Bond's estimation enables one to use the lagged term of dependent variable as an exogenous variable and instrumental variables (Arellano and Bond, 1991) to reduce the endogeneity problem and get more consistent estimates. To reduce heteroskedasticity, which is often a problem in micro-level panels, robust standard errors are reported (see Stata, 2003). The latter are higher and therefore the parameter estimates are statistically less significant.

It is a general assumption that foreign banks' entry at time t is exogenous, i.e. FBSN or FSA do not depend on bank-specific variables at time t (Zajc, 2002). In practice, foreign banks' entry may be associated with timing and a particular bank enters the market in year t because of the market conditions in period t. It may be the case that foreign banks are entering by acquisition at time t because of the crisis period of a single bank or of the whole banking market in order to acquire banks at a low price. It can be argued that this makes foreign banks' entry partly endogenous. Here the endogeneity problem is not very strong, because in most cases the bank's name changes after the merger, and the bank that was acquired, for example, because of negative profit and low price, is left out of the period t estimation as I am using first differences. Nevertheless, some endogeneity may remain, because sometimes foreign banks consider the average performance of the whole market in period t while making entry decisions.

To reduce the possible endogeneity problem in estimations, levels of lag operators are suggested to be used (Stata, 2003). Levels of lag operators of foreign bank entry variables (1 period lag of FBSN and FSA) are used as instrument variables.

An important difference between this study and previous works is that I analyze foreign banks' entry effects on both foreign and domestic banks' performance. The first differences of variables ensure that the observations of a foreign bank that enters the market at time t are not included. The short-term reaction of the banks operating in the CEE countries' markets to foreign banks' entry is analyzed. Yearly time dummies (1996–2001) are included into the estimations, while no regression coefficients of time dummies are reported. Arellano-Bond estimations also include tests of autocorrelations AR(1) and AR(2) that are not reported herein. It has to be pointed out that autocorrelation was not significantly present in the regressions except for ALINT.

2.3.3. Discussion of the estimation results

Estimation results about the share of foreign banks in the total number of banks (FBSN) as a foreign banks' entry variable are given in Table 2.7.

The foreign banks' entry variable FBSN has a statistically significant and negative effect on the banks' average interest rate of earning assets and loan loss provisions (LLPTA), supporting hypothesis 8.

H8: Foreign ownership in the banking sector is negatively correlated with the banks' loan loss provisions.

I tested the effect of foreign banks' entry on the banks' net interest margin, but found no statistically significant connections. Therefore ALINT was used to analyze the effect on interest revenues. The money market interest MMR was used as a control variable to capture the movements of interest rates during the observable period.

H5: The net interest margin, non-interest income and profitability of a bank in a given country are negatively correlated with foreign banks' share in that country.

It seems that foreign banks' entry has a significant effect only on the interest income of interest-earning assets and not on interest expenses. Hermes and Lensink (2003) found a positive and significant effect of FBSN on non-interest income, and Zajc (2004) got similar results. A negative relationship with profitability measures indicates that foreign banks' entry enhances competition in the banking sector.

Table 2.7. Foreign banks' entry (FBSN) effect on bank performance

Variable	D(ALINT) (1)	D(PTPTA) (2)	D(OOITA) (3)	D(OHTA) (4)	D(LLPTA) (5)
LD(DEP)	0.0185	0.1898	0.0217	0.3240	0.2061*
	(0.0238)	(0.1304)	(0.0961)	(0.2795)	(0.1096)
D(FBSN)	– 0.1277***	–0.0252	–0.0583	–0.0024	–0.0700*
	(0.0387)	(0.0408)	(0.0713)	(0.0503)	(0.0409)
D(NEATA)	0.1109*	0.0355	0.4998*	0.4282	–0.0251
	(0.0603)	(0.0414)	(0.2979)	(0.3328)	(0.0773)
D(ETA)	–0.1535	0.3968***	–0.0244	–0.2211	0.0100
	(0.1027)	(0.1310)	(0.3568)	(0.3459)	(0.0964)
D(CSTFTA)	–0.0242	0.0543	0.1437	0.0100	0.0498
	(0.0345)	(0.0369)	(0.0886)	(0.0767)	(0.0416)
D(MSHARE)	0.1722	0.2006*	–0.6116**	–0.6354*	–0.1750*
	(0.1698)	(0.1089)	(0.3001)	(0.3334)	(0.1032)
FD	0.0119	–0.0347	0.0086	0.0347	0.0249
	(0.0147)	(0.0295)	(0.0579)	(0.0677)	(0.0226)
D(DCGDP)	–0.0247**	0.0574	0.5085***	0.5294*	0.1648***
	(0.0295)	(0.0505)	(0.1736)	(0.3165)	(0.0610)
D(GGDP)	–0.4700***	–0.0125	–0.3006**	–0.4822*	–0.0464
	(0.1669)	(0.1186)	(0.1462)	(0.2508)	(0.1218)
D(LNINCOME)	0.0039	–0.0072	–0.2695**	–0.2694*	–0.0651
	(0.0440)	(0.0488)	(0.1293)	(0.1454)	(0.0519)
D(CPI)	–0.0036	0.0051	0.0344	0.0103	0.0026
	(0.0033)	(0.0043)	(0.0266)	(0.0259)	(0.0018)
D(MMR)	0.0322				
	(0.0480)	–	–	–	–
No. of obs.	1036	1041	1035	1021	895
F-Statistic	4.13	2.91	2.08	1.29	2.60
Wald Chi2	53.30	48.97	51.56	23.76	66.77

Source: author's calculations.
Notes: * – significant at 10% level, ** – significant at 5% level, *** – significant at 1% level.

Consequently, the analysis does not support Hypothesis 5, although it shows that foreign entry is negatively correlated with the average interest income earned by interest-earning assets.

The negative relationship between FBSN and LLPTA shows that foreign banks' entry leads to stricter lending policies of local banks. As different from domestic banks, no cherry-picking behavior was found among foreign banks, as FD is not significant in regression 5.

FBSN is statistically not associated with profits, overhead costs or non-interest income of banks. **Therefore hypotheses 5, 6, and 8 were not supported by this regression estimation.** The banking market concentration index was excluded from the estimation equations because of no significant effect on any dependent variables.

H6: The overhead costs of a bank in a given country are positively correlated with foreign banks' share in that country.

FSA has a somewhat different effect on bank performance. The estimation results in Table 2.8 show that FSA has a negative effect on average loan interest rate (regression number 6) and a positive effect on loan loss provisions (regression number 10). As discussed in Section 1.3, foreign entry may also increase the loan loss provisions of local banks. It is possible that local banks ease the credit terms and are less conservative to be competitive on the credit market. As FSA reflects the relative size of foreign banks versus domestic banks, it seems that a bank's market size is an important factor that influences the reaction of local banks to foreign entry. As the FSA has a statistically significant positive effect on LLPTA, while the correlation with FBSN is negative, then the effect of foreign entry on LLPTA remains unclear.

The estimation results indicate that if the entering foreign banks are comparatively larger than the local banks, then due to the intensifying competition on the loan market, the local banks will relax the credit policy which may result in increasing loan losses. From other explanatory variables, MSHARE is negatively associated with overhead costs and non-interest income, and positively associated with profits (regressions 8–10). The results indicate that larger banks are able to achieve some economies of scale.

The estimation results with the interactive term with foreign ownership (FBSN) and banking sector development are given in Table 2.9. They indicate that the development of the banking sector has some influence on short-term foreign banks' entry effects. As it was concluded above, foreign banks' entry is generally associated with decreasing interest incomes. The estimations with interactive term FBSN*DCGDP show that in more developed banking markets this fall in interest revenues is lower, because their interest rates have already converged with those of developed markets (see regression 11).

Table 2.8. The effect of foreign banks' entry (FSA) on the performance of banks

Variable	D(ALINT) (6)	D(PTPTA) (7)	D(OOITA) (8)	D(OHTA) (9)	D(LLPTA) (10)
LD(DEP)	0.0167	0.1809	0.0537	0.3541	0.2162**
	(0.0223)	(0.1274)	(0.1099)	(0.2848)	(0.1112)
D(FSA)	−0.0417**	−0.0203	0.0512	0.0617	0.0251**
	(0.0168)	(0.0145)	(0.0340)	(0.0478)	(0.0117)
D(NEATA)	0.1116*	0.0379	0.5076*	0.4375	−0.0253
	(0.0594)	(0.0425)	(0.3065)	(0.3451)	(0.0791)
D(ETA)	−0.1648	0.3966***	−0.0321	−0.2304	0.0101
	(0.1036)	(0.1315)	(0.3647)	80.3555)	(0.0957)
D(CSTFTA)	−0.0285	0.0495	0.1345	−0.0029	0.0469
	(0.0316)	(0.0370)	(0.0889)	80.0796)	(0.0403)
D(MSHARE)	0.2048	0.2166	−0.6168**	−0.6512*	−0.1766*
	(0.1695)	(0.1135)	(0.3141)	(0.3422)	(0.0963)
FD	0.0125	−0.0284	−0.0067	0.0227	0.0140
	(0.0193)	(0.0308)	(0.0539)	(0.0648)	(0.0187)
D(DCGDP)	0.0088	0.0598	0.5347***	0.5350	0.1897***
	(0.0340)	(0.0472)	(0.1814)	(0.3362)	(0.0641)
D(GGDP)	−0.4745***	−0.0120	−0.3154**	−0.4654**	−0.0700
	(0.1681)	(0.1133)	(0.1453)	(0.2470)	(0.1092)
D(LNINCOME)	0.0280	0.0018	−0.2905**	−0.2909**	−0.0675
	(0.0447)	(0.0503)	(0.1367)	(0.1591)	(0.0523)
D(CPI)	−0.0028	0.0054	0.0347	0.0104	0.0037*
	(0.0031)	(0.0043)	(0.0261)	(0.0264)	(0.0020)
D(MMR)	0.0703				
	(0.0463)	–	–	–	–
No. of obs.	1023	1028	1022	1009	884
F-Statistic	3.63	3.57	1.75	1.26	2.88
Wald Chi2	59.97	59.03	44.98	21.47	72.08

Source: author's calculations.
Notes: * – significant at 10% level, ** – significant at 5% level, *** – significant at 1% level.

FSA*DCGDP has a significant effect on average loan interest rates, pre-tax profits and non-interest incomes. Foreign banks' entry reduces the profitability of local banks, but in more developed markets this fall is lower because the entering bank has no higher competitive advantage than in less developed countries. The analysis shows that the technology gap hypothesis holds in the CEE countries. The negative competition effect on the performance of domestic banking sector is lower with more developed banking sector.

H7: Foreign banks' entry effects on local banks' performance depend on their market share and the level of development of the banking market in the host country.

The level of development of the banking market also has some effect on banks'
overhead costs (regression 14 in Table 2.9). Therefore Hypothesis 7 found some
support. The results indicate that in countries with a less developed financial
sector, foreign entry is more related to higher overhead costs, but in countries
where the financial sector, is well developed, foreign entry causes less extra
costs because fewer additional investments are needed to upgrade the banking
technology.

Table 2.9. Foreign banks' entry (FBSN) effects: role of the development of the
banking market

Variable	D(ALINT) (11)	D(PTPTA) (12)	D(OOITA) (13)	D(OHTA) (14)	D(LLPTA) (15)
LD(DEP)	0.0165	0.1916	0.0450	0.3229	0.2013*
	(0.0220)	(0.1302)	(0.1183)	(0.2899)	(0.1095)
D(FBSN)	−0.2293***	0.0617	0.3104	0.3382*	−0.0388
	(0.0820)	(0.0790)	(0.2312)	(0.2036)	(0.0845)
D(FBSN*DCGDP)	0.3620**	−0.2922*	−1.2258**	−1.1266*	−0.1072
	(0.1768)	(0.1644)	(0.5979)	(0.6814)	(0.1862)
D(NEATA)	0.1008*	0.0408	0.5233*	0.4417	−0.0251
	(0.0609)	(0.0413)	(0.3022)	(0.3260)	(0.0786)
D(ETA)	−0.1497	0.3929***	−0.0455	−0.2406	0.0091
	(0.1008)	(0.1316)	(0.3722)	(0.3540)	(0.0972)
D(CSTFTA)	−0.0233	0.0535	0.1394	0.0075	0.0491
	(0.0341)	(0.0371)	(0.0892)	(0.0757)	(0.0414)
D(MSHARE)	0.1581	0.2099**	−0.5791**	−0.6052*	−0.1727*
	(0.1731)	(0.1043)	(0.2922)	(0.3291)	(0.1021)
FD	0.0083	−0.0345	0.0094	0.0362	0.0253
	(0.0146)	(0.0291)	(0.0609)	(0.0699)	(0.0225)
D(DCGDP)	−0.1552**	0.1395	0.8693***	0.8543*	0.1952*
	(0.0751)	(0.0858)	(0.3375)	(0.5093)	(0.0925)
D(GGDP)	−0.4254***	−0.0146	−0.3061**	−0.4932**	−0.0561
	(0.1514)	(0.1196)	(0.1466)	(0.2479)	(0.1268)
D(LNINCOME)	0.0191	−0.0013	−0.2621**	−0.2606*	−0.0610
	(0.0463)	(0.0468)	(0.1269)	(0.1431)	(0.0518)
D(CPI)	−0.0063	0.0067	0.0404	0.0164	0.0033*
	(0.0041)	(0.0042)	(0.0287)	(0.0277)	(0.0018)
D(MMR)	0.0702*				
	(0.0402)	–	–	–	–
No. of obs.	1036	1041	1035	1021	895
F-Statistic	4.02	2.97	1.85	1.2	2.63
Wald Chi2	73.91	53.74	52.80	27.70	63.90

Source: author's calculations.
Notes: * – significant at 10% level, ** – significant at 5% level, *** – significant at 1%
level.

The results of regression number 18 in Table 2.10 show that foreign banks' entry reduces the non-interest incomes of local banks, but the coefficient may turn positive in more developed markets where the competition is tougher. Support to Hypotheses 5 and 7 was found. One reason for the limited role of the development of the banking sector on foreign entry effects can be the homogenous sample of countries.

Lags of difference of dependent variables generally have no statistically significant coefficients. From among other explanatory variables bank equity to total assets is positively correlated with bank profits.

Table 2.10. Foreign banks' entry (FSA) effects: role of the level of development of the banking market

Variable	D(ALINT) (16)	D(PTPTA) (17)	D(OOITA) (18)	D(OHTA) (19)	D(LLPTA) (20)
LD(DEP)	0.0160	0.1805	0.1391	0.4027	0.2184**
	(0.0220)	(0.1264)	(0.1446)	(0.3073)	(0.1117)
D(FSA)	0.0651*	−0.1366***	−0.3075**	−0.2444	−0.0235
	(0.0347)	(0.0387)	(0.1248)	(0.1864)	(0.0409)
D(FSA*DCGDP)	−0.3371***	0.3512***	1.0882**	0.9311	0.1476
	(0.1066)	(0.1135)	(0.4342)	(0.6640)	(0.1287)
D(NEATA)	0.1103*	0.0382	0.5074	0.4342	−0.0266
	(0.0588)	(0.0414)	(0.3104)	(0.3474)	(0.0779)
D(ETA)	−0.1665	0.3948***	−0.0314	−0.2306	0.0114
	(0.1036)	(0.1309)	(0.3819)	(0.3653)	(0.0960)
D(CSTFTA)	−0.0282	0.0492	0.1318	−0.0064	0.0469
	(0.0314)	(0.0368)	(0.0914)	(0.0820)	(0.0402)
D(MSHARE)	0.2130	0.2043*	−0.6698**	−0.6962*	−0.1838*
	(0.1696)	(0.1106)	(0.3350)	(0.3746)	(0.0989)
FD	0.0109	−0.0286	0.0019	0.0301	0.0144
	(0.0167)	(0.0376)	(0.0389)	(0.0564)	(0.0166)
D(DCGDP)	0.1894***	−0.1690***	−0.1452**	−0.0507	0.0989
	(0.0738)	(0.0569)	(0.1361)	(0.1324)	(0.0539)
D(GGDP)	−0.4151***	−0.0095	−0.3574	−0.4927**	−0.0690
	(0.1570)	(0.1121)	(0.1718)	(0.2740)	(0.1094)
D(LNINCOME)	−0.0017	0.0530	−0.1173	−0.1498*	−0.0476
	(0.0450)	(0.0491)	(0.0771)	(0.0752)	(0.0459)
D(CPI)	−0.0057*	0.0071*	0.0376	0.0136	0.0044**
	(0.0034)	(0.0043)	(0.0280)	(0.0288)	(0.0022)
D(MMR)	0.1173***				
	(0.0433)	–	–	–	–
No. of obs.	1023	1028	1022	1009	884
F-Statistic	4.53	3.93	1.32	1.36	3.00
Wald Chi2	81.43	69.41	46.82	25.39	75.29

Source: author's calculations.
Notes: * – significant at 10% level, ** – significant at 5% level, *** – significant at 1% level.

Next the interactive term with the bank's market share and foreign banks' entry variable and bank market share is introduced. It can be expected that small banks react to foreign banks' entry somewhat differently from large ones. It can be expected that banks with a bigger market share react less to foreign banks' entry. This can be so because firstly, they are too big to react so quickly, and secondly, banks with a large market share may care less about foreign entry, because it affects them less than small banks. The estimation results in Table 2.11 show that a bank's market share has only a very limited effect on foreign

Table 2.11. Foreign banks' entry (FBSN) and banks' performance: the role of a bank's market share

Variable	D(ALINT) (21)	D(PTPTA) (22)	D(OOITA) (23)	D(OHTA) (24)	D(LLPTA) (25)
LD(DEP)	0.0184	0.1876	0.0307	0.3429	0.2015*
	(0.0238)	(0.1299)	(0.0989)	(0.2916)	(0.1079)
D(FBSN)	–0.1171***	–0.0103	–0.1275**	–0.0816	–0.1008**
	(0.0415)	(0.0419)	(0.0642)	(0.0822)	(0.0426)
D(FBSN*MSHARE)	–0.1664	–0.2505	1.1796*	1.3582	0.4665***
	(0.2358)	(0.1551)	(0.6216)	(0.9280)	(0.1414)
D(NEATA)	0.1103*	0.0348	0.5029*	0.4302	–0.0236
	(0.0601)	(0.0413)	(0.2977)	(0.3335)	(0.0760)
D(ETA)	–0.1542	0.3968***	–0.0243	–0.2209	0.0103
	(0.1026)	(0.1310)	(0.3582)	(0.3504)	(0.0961)
D(CSTFTA)	–0.0253	0.0534	0.1482*	0.0148	0.0517
	(0.0346)	(0.0371)	(0.0885)	(0.0760)	(0.0413)
D(MSHARE)	0.2071	0.2526**	–0.8549**	–0.9185*	–0.2989**
	(0.2053)	(0.1083)	(0.4245)	(0.5143)	(0.1204)
FD	0.0162	–0.0246	–0.0401	–0.0245	0.0084
	(0.0110)	(0.0262)	(0.0380)	(0.0315)	(0.0134)
D(DCGDP)	–0.0259	0.0561	0.5178***	0.5461*	0.1717***
	(0.0290)	(0.0506)	(0.1736)	(0.3270)	(0.0606)
D(GGDP)	–0.4653***	–0.0080	–0.3201**	–0.5040*	–0.0542
	(0.1693)	(0.1194)	(0.1529)	(0.2648)	(0.1203)
D(LNINCOME)	0.0051	–0.0054	–0.2790**	–0.2819*	–0.0721
	(0.0447)	(0.0488)	(0.1318)	(0.1527)	(0.0521)
D(CPI)	–0.0036	0.0052	0.0339	0.0096	0.0024
	(0.0033)	(0.0043)	(0.0265)	(0.0258)	(0.0018)
D(MMR)	0.0335				
	(0.0484)	–	–	–	–
No. of obs.	1036	1041	1035	1021	895
F-Statistic	4.27	3.87	2.1	1.24	2.59
Wald Chi2	72.00	69.83	59.08	27.26	63.65

Source: author's calculations.
Notes: * – significant at 10% level, ** – significant at 5% level, *** – significant at 1% level.

entry. The interactive term FBSN*MSHARE has a statistically significant egative effect on non-interest income and loan loss provisions, partially supporting Hypothesis 7. Bigger banks tend to have lower loss provisions, indicating that they have comparably more creditworthy clients and/or a better credit risk policy. No statistically significant coefficients for FSA*MSHARE were found, therefore those results are not reported.

A summary of the results and comparison with other studies is given in Table 2.12. The results are consistent with earlier studies, having a few differences. It can be generalized that foreign bank entry is negatively correlated with income variables (ALINT, PTPTA and OOITA) and foreign banks' entry is also negatively associated with loan loss provisions. Overhead costs are positively correlated with FBSN, but the increase is less important for countries with higher DCGDP, therefore the technology gap hypothesis found some support from the results. Hermes and Lensink (2002, 2003) and Zajc (2004) have likewise found that foreign banks' entry has a positive and significant effect on overhead costs. In most studies, foreign banks' entry is negatively correlated with non-interest income. On the other hand, Hermes and Lensink (2003) found a positive and significant correlation between foreign banks' entry and non-interest income, but their estimation method and the countries observed were different.

For the sake of comparison, I have calculated parameter estimates also with the fixed effects OLS model. A summary of the results is reported in Appendix 16. There are some minor differences between Arellano-Bond's estimation results and fixed effects results, but it can be said that in general terms Arellano-Bond and OLS fixed effects models yield quite similar results. Therefore the parameter estimates are generally robust against different estimation methodologies.

The results presented in Table 2.12 show that foreign banks' entry effects on banks' performance are quite ambiguous and support to the hypotheses set up in Section 1.3 is rather limited. Hypotheses 5, 6 and 7 were partially supported, (see Table 2.13). The validity of Hypothesis 8 remains unclear as both statistically significant positive and negative correlations were found. The analysis of the hypotheses indicates that the entry of foreign banks has limited negative competition effect on the performance of local banks. The technology gap hypothesis seems to hold. The higher is the development of the local banking sector the weaker is negative competition effect of foreign banks entry on the performance of domestic banks.

Table 2.12. A summary of the results and comparison with earlier studies

	Model	Net int. margin; ALINT	Non-interest income	Before tax profit	Overhead expenses	Loan loss provisions
Author's results	FBSN	−	NS	NS	NS	−
	FSA	−	NS	NS	NS	+
	FBSN FBSN×DCGDP	− +	NS	NS	+ −	NS
	FSA FSA×DCGDP	+ −	− +	− +	NS	NS
	FBSN FBSN×MSHARE	NS	− +	NS	NS	− +
	FSA FSA×MSHARE	NS	NS	NS	NS	NS
Claessens et al (2001)	FBSN	NS	−	−	−	NS
	FSA	NS	NS	NS	NS	NS
Hermes and Lensink (2003)	FBSN FBSN×DCGDP	+ −	+ −	− +	+ −	+ −
Lensink and Hermes (2003)	FBSN FBSN×GDPPC FSA FSA×GDPPC	+ − + −	+ − + −	− + − NS	+ − + NS	+ − + −
Zajc (2002)	FBSN FSA	NS −	− −	− −	+ +	NS NS

Notes: + indicates a significant positive correlation
             − indicates a significant negative correlation
             NS indicates a relationship that is not statistically significant.
Sources: Author, Claessens et al (2001); Hermes and Lensink (2003); Lensink and Hermes (2003); Zajc (2002).

Table 2.13. Validity of the hypotheses about foreign banks' entry effects on the performance of local banks

Performance indicators and factors	Number of Hypothesis	Validity
NIM	5	Not supported
OOITA	5	Partially supported
PTP	5	Partially supported
OHTA	6	Partially supported
DCGDP	7	Supported
MSHARE	7	Partially supported
LLPTA	8	Not clear

2.4. The impact of foreign banks on the stability of the banking sectors in the CEE countries

2.4.1. Stability of credit growth of foreign and domestic banks

To analyze whether foreign banks have more stable credit supply growth in the CEE countries, the mean values and standard deviations of credit growth in each country involved was calculated. Credit growth was calculated on the basis of bank level data drawn from the Bankscope database. Bank market shares were used as weights to calculate the average growth of credit supply. Detailed results for each country are given in Appendix 27.

H9: Foreign banks have a less volatile growth of credit over time.

The average growth of the credit portfolio of foreign and domestic banks in 1995–2003 is given in Figure 2.28. The standard deviation is calculated over years. The volatility of credit growth among foreign and domestic banks has been quite equal. The standard deviation of the growth of credit supply is 0.15 for domestic banks and 0.14 for foreign banks. Figure 2.28 indicates that during 1999–2000, just after the crises in many CEE countries, the average credit growth of foreign banks was somewhat higher than that of domestic banks. This result is consistent with the study by Dages *et al*. (2000) and Cárdenas *et al* (2003) who found that foreign banks have stronger credit supply during crisis periods because of better capitalization.
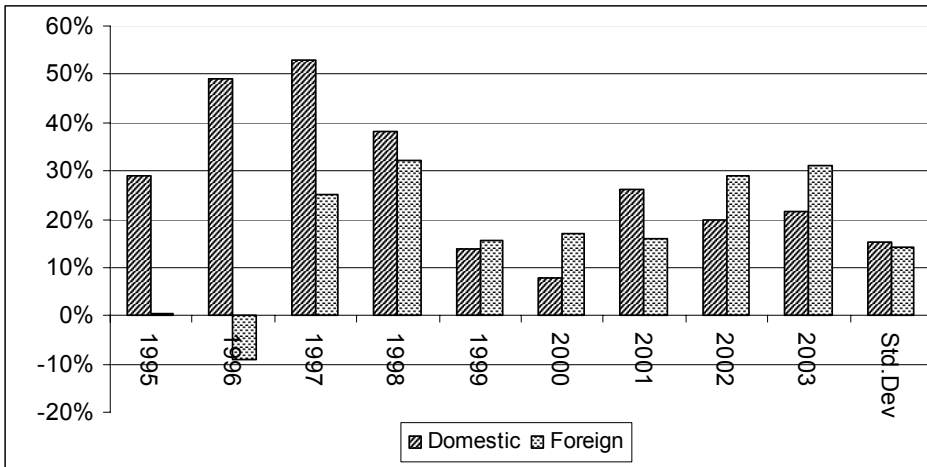
Figure 2.28. Banks' average annual growth of credit in the CEE countries.
Source: Bankscope 2005 (author's calculations).

Figure 2.28 also shows that until 1998, the credit portfolios of foreign banks were growing more slowly than those of domestic banks. The reason is probably that foreign banks were not able to gain remarkable market shares at the beginning of the 90s, but nowadays they already dominate the banking market. Detailed results for each country are given in Appendix 27.

Figure 2.29 presents the volatility of credit supply growth (standard deviation) in different countries between 1995 and 2003, indicating Latvia as the only country where the volatility of credit portfolio of the foreign banks was higher than that of the domestic banks. In 1995–1996, the drawback of credit of foreign banks was quite significant in Latvia. Figure 2.29 shows that in the CEE countries, foreign banks generally have less volatile credit portfolio growth.
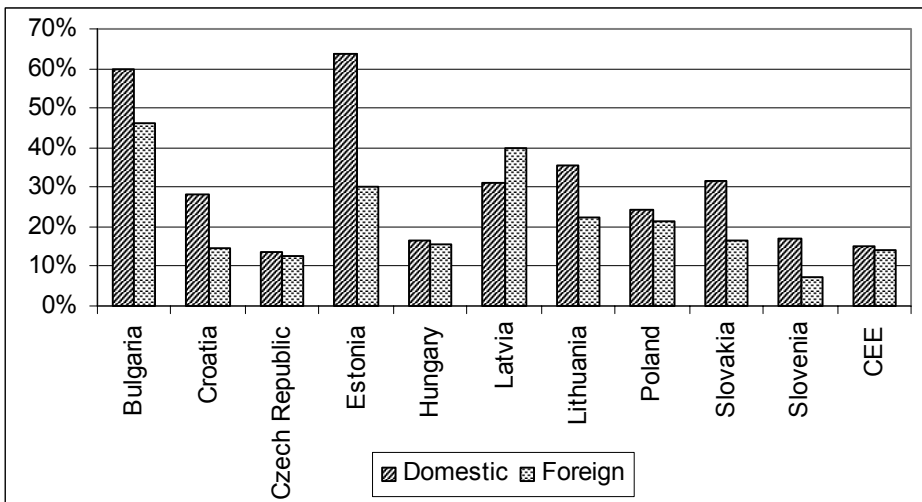
Figure 2.29. Standard deviations of credit portfolio growth of banks in the CEE countries over the 1993–2003 period (author's calculations).

The t-test of credit supply growth between foreign and domestic years shows that generally there is no statistically significant difference in credit growth between foreign and domestic banks. Nevertheless, in the majority of countries, foreign banks' credit growth was more stable and Hypothesis 9 is therefore supported.

The conclusion from this section is that foreign banks have contributed to the stability of credit supply in the CEE countries during crises, although the differences in the volatility of credit supply are not very big and further studies are required to get a deeper understanding about the effects of foreign banks' entry on the stability of the credit market.

2.4.2. The effect of foreign banks' entry on the quality of banks' loan portfolios

This section provides a more detailed discussion of foreign banks' influence on the quality of loan portfolios. .

H8: Foreign ownership in the banking sector is negatively correlated with the banks' loan loss provisions.

The analysis in Section 2.33 showed that foreign banks' share in the total number of banks had a statistically significant negative effect on the loan loss provisions to total assets ratio LLPTA. At the same time, foreign banks' share in assets had a statistically significant and positive effect on LLPTA. This result is controversial and therefore needed a more thorough analysis to get more stable results. For this purpose, the bank-specific accounting variables that were not statistically significant were removed from the equations and only country-specific variables were included in the regression equations. As a bank's market share seemed to have a statistically significant effect in the regressions estimated in Section 2.3.3, MSHARE was included into the equations as the only bank-specific variable. The market concentration indicator CONC was also included. The levels of foreign banks' entry variables (1 period lag of FBSN and FSA) were used as instrument variables. T-statistics were reported in parentheses.

The estimation results in column A (Table 2.14) indicate that foreign banks' entry in terms of their number on the market has a negative effect on banks' loan loss provision to total assets. This result is similar to that obtained by Weller (2000), who showed that in the presence of foreign banks, local banks may reduce credit by applying more strict credit conditions to firms because of a comparatively weak financial situation and fear of bankruptcy. The negative relationship between foreign banks' entry and banks' loan loss provisions can also be interpreted as a positive effect of foreign banks' entry on the stability of the banking market.

In column B, the regression results with interactive variable of foreign entry and banking market share (D(FBSN*MSHARE) is introduced. The regression estimation shows that banks with a higher market share have fewer loan loss provisions to total assets and react less on foreign banks' entry. This can be concluded from column B, where the regression coefficient for (D(FBSN*MSHARE) is positive, but the regression coefficients for D(FBSN) and for D(MSHARE) are negative.

Foreign banks' entry variable D(FSA) does not have a statistically significant effect on banks' loan loss provisions in the regressions. The results are reported in column C. This result is somewhat unexpected. Foreign banks' share in the total number of banks has an effect on local banks' loan loss provisions, while FSA has none. The result indicates that the entry of foreign banks per se is an important factor that influences the reaction of local banks

and not the size of entering banks. In order to analyze the effect of foreign banks' entry only on domestic banks, foreign banks are now removed from the sample and the regression is estimated with the same exogenous variables as those used in column A. The results are reported in column D.

The results in column D show that generally domestic banks react similarly to foreign entry as does the full sample. The most significant difference is that the regression coefficient of MSHARE in column D is –0.449, while it is –0.11 in the regression presented in column A. This result indicates that for domestic banks their market share (also size) is an important factor. Bigger domestic banks have lower loan loss provisions, i.e. their loan portfolio quality is higher.

Table 2.14. Effect of foreign banks' entry on loan loss provisions of banks

Variable	D(LLPTA) (A)	D(LLPTA) (B)	D(LLPTA) (C)	D(LLPTA) (D)
LD(DEP)	0.159***	0.156***	0.171***	0.1578***
	(5.59)	(5.47)	(5.93)	(4.18)
D(FBSN)	–0.076***	–0.095***		–0.150***
	(–3.53)	(–4.15)		(–4.00)
D(FSA)			0.018	
			(1.33)	
D(FBSN* MSHARE)		0.305**		
		(2.11)		
D(MSHARE)	–0.111*	–0.188**	–0.107	–0.449***
	(–1.68)	(–2.38)	(1.60)	(–2.54)
D(DCGDP)	0.184***	0.184***	0.213***	0.2470***
	(4.30)	(4.32)	(5.08)	(2.99)
D(GDPG)	–0.033	–0.043	–0.107	0.1470
	(–0.51)	(–0.66)	(–1.61)	(1.35)
D(CONC)	0.057*	0.052*	0.039	0.06652
	(1.80)	(1.63)	(1.16)	(1.28)
C	0.005	0.003	(–0.003)***	0.0059*
	(1.52)	(1.55)	(–2.85)	(1.86)
No. of obs.	897	897	886	469
F-Statistic	15.9	14.4	14.69	9.90
Wald Chi2	95.47	100.45	88.13	59.43

Notes: t – statistics are in parentheses; * – significant at 10% level, ** – significant at 5% level, *** – significant at 1% level.
Source: authors' calculations.

The regression coefficient for D(DCGDP) is positive in all regressions, indicating that higher private sector credit is associated with higher loan loss provisions to total assets of banks. The interpretation of this result can be twofold. If we take DCGDP as the indicator of banking market development, like Hermes and Lensink (2003), then the interpretation will be that there are higher average loan loss provisions to total assets of banks in countries with a

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more developed banking market. Another interpretation is that in transition countries with too high growth of debt to the GDP there are higher average loan loss provisions to total assets of banks.

The results show that the concentration of the banking market D(CONC) is positively associated with banks' loan loss provisions to total assets. An interpretation for the transition countries whose major banks are foreign-owned could be that large foreign banks "skim the cream", focusing on bigger less risky firms and leaving more risky credit projects to smaller domestic banks.

It might be argued that loan loss provisions are not very good indicators of the quality of a bank's loan portfolio.. Yet several empirical papers have used this measurement (Claessens *et al* 2001, Zajc 2002, Hermes and Lensink 2003). Figure 2.30 compares the average levels of LLPT and the total of problem loans in the total of loans (PLTL) for foreign and domestic banks in different countries. The average was calculated for the period 1993–2003. Figure 2.30 indicates that LLPTA is significantly lower than PLTL. The reason for such a big difference is that PTTL was calculated on the basis of total loans that are usually about 60% of assets. The second reason is that all problem loans are provisioned at different rates that can vary from about 10% to 100%, depending on the probability of real losses. Therefore the author suggests that LLPTA is a better indicator of loan portfolio quality as it reflects the real possibility of losses, whereas PTTL includes all possible problem loans and is not so tightly associated with real loan losses.

The general conclusion of this section is that foreign banks' entry tends to be negatively associated with banks' loan loss provisions, which indicates that foreign banks entry contributes towards the stability of the banking market in the transition countries. Hypothesis 8 was partially supported by the analysis.
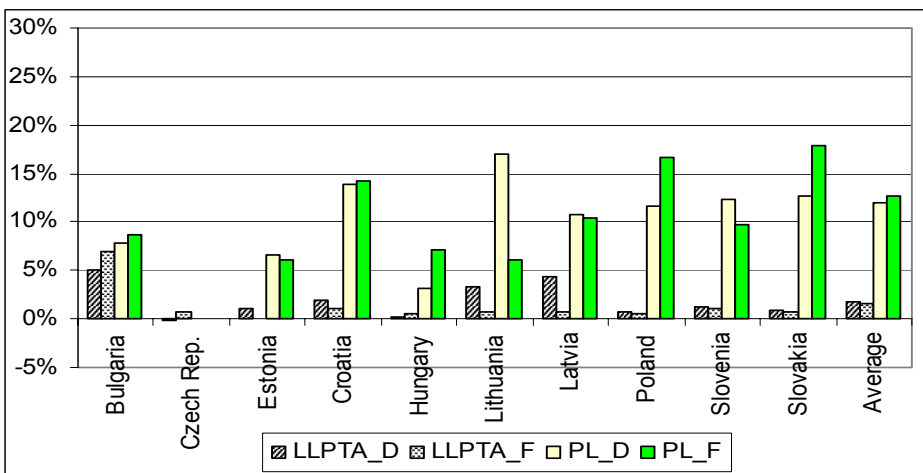
Figure 2.30. LLPTA and PLTL of foreign and domestic banks (author's calculations).

2.4.3. Demand deposits, liquidity, and capitalization
of foreign and domestic banks

An interesting question of banks' internationalization is the timing of market entry. The OLI paradigm does not explain when foreign banks should enter the market. As discussed in Section 1.3 of the dissertation, financial liberalization and the subsequent developments are very important factors for foreign banks' entry, too. The liberalization of the market and removal of barriers actually enable foreign banks to enter the market. On the other hand, liberalization increases the likelihood of a banking crisis in the early periods of transition. Due to illiquidity and insolvency, in times of crisis the asset values of domestic banks are low, which makes the moment appropriate for foreign banks to enter the market. That intuition led to the following hypothesis:

H4: The entry of foreign banks into the CEE markets is more intensive during banking crises.

Table 2.15 presents the average number of new foreign banks in the CEE countries during crisis and non-crisis periods. Table 2.15 indicates that in the majority of the CEE countries, the number of foreign banks increased significantly in periods of crisis. The average number of new foreign banks during non-crisis periods was higher only in Bulgaria and Slovakia. It is also probable that foreign banks enter a market immediately after a banking crisis. Appendix 26 presents the results of the t-test for comparing mean values of new foreign bank entries (NFB) during crisis and non-crisis periods.

Table 2.15. Number of new foreign banks' entries 1993–2003

Country	Average number of foreign banks entering during crisis	Average number of foreign banks entering during stability
Bulgaria	2.0	2.7
Czech Republic	1.5	0.3
Estonia	1	0
Croatia	3.3	1.1
Hungary	2.5	1
Lithuania	1.5	0.5
Latvia	1.13	0.5
Poland	4.83	1.75
Slovenia	1	0
Slovakia	0.22	1

Source: author's calculations.

The average number of new foreign bank entries in the CEE countries during crises was 2.4, while it was only 1.0 for non-crisis periods. The difference is statistically significant. The result is consistent with the integrated approach of the OLI model developed in chapter 1.3. During a banking crisis are the ownership advantage and location advantage more significant. The price of the domestic banks' assets is very low during a crisis and then it is cheaper to acquire a bank. Foreign banks can use their trustworthy reputation during a banking crisis as an additional ownership advantage. The result is also consistent with the model constructed by Buckley and Casson (1981) about the optimal timing of FDI and thus Hypothesis 4 is supported.

Tschoegl (2003) suggested that foreign banks may contribute to the stability of the banking sector by enabling customers to deposit their money at foreign banks. In order to test the "flight to quality" hypothesis in the CEE countries, the growth of demand deposits in foreign and domestic banks during crises was analyzed.

H10: There is an additional inflow of demand deposits into foreign banks during a banking crisis.

The data about banking crises were obtained from Caprio and Klingebiel (2003), who provided data about 117 systemic banking crises, stressing that it is very difficult to ascertain the exact time of a banking crisis as the crisis may have persisted for some time before being detected. Authors claim, that the crises times in different countries are those that are generally accepted by finance specialists and the accuracy of those evaluations is not always clear. The systemic banking crisis is defined as a situation when much or all of the banking capital in the country is exhausted (Caprio and Klingebiel 2003, p. 1).

Appendix 29 gives an overview of the banking crises in the CEE countries, showing that in the 1990s, following the financial liberalization at the beginning of the decade, banking crises occurred in all the observable CEE countries, while after 2000, no significant banking crises have happened. Appendix 19 presents the main financial sector indicators of the CEE countries.

The fact that foreign banks entered the CEE market mainly after banking crises makes it hard to forecast their activity in the future. Tschoegl 2003 also notes that the role of foreign banks during the banking crises in the transition economies was quite minor because they were not present yet. Their task was mainly to rehabilitate and recapitalize illiquid banks after a crisis.

To shed light on the behavior of foreign and domestic banks during banking crises in the CEE countries, the average values of the growth of demand deposits, average liquidity ratios and average capital ratios of foreign and domestic banks were calculated, using their respective market shares as weights. Weighted average reduces the significance of small banks in the sample. The reason for using bank market shares as weights is that small banks may have very extreme growth rates, leading to overestimation of the average growth.

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Table 2.16 shows that during crises, foreign banks, compared with domestic ones, have a higher average growth of demand deposits than in periods with no crisis. On the other hand, the growth of domestic banks' deposits decreases during crises. Thus, foreign banks have a higher deposits growth than domestic banks. Consequently, the hypothesis of *flight to quality* seems to hold in the CEE countries**.** Some deposits flow from domestic to foreign banks, leading to a higher growth of deposits in foreign banks and a lower growth of deposits in domestic banks during a crisis. So Hypothesis 10 is supported by the analysis.

Table 2.16. The growth rates of demand deposits in foreign and domestic banks

Variable	Crisis	Obs.	Weight	Mean[15]	Std. Dev.	Min.	Max.
Deposit_growth_domestic	YES	151	6.345775	0.0816843	0.5175707	–1.6166	1.92
Deposit_growth_foreign	YES	107	6.038573	0.1893767	0.4378636	–1.6168	2
Deposit_growth_domestic	NO	318	11.96934	0.117738	0.3147777	–1.3913	1.93
Deposit_growth_foreign	NO	283	23.34511	0.1667128	0.2388056	–2	2

Source: author's calculations.

The author suggests that the possibility of flight to quality is an important positive effect deriving from the presence of foreign banks as depositors can move their deposits into more reliable foreign banks, which can help prevent the collapse of the whole banking market. In the following discussion I argue that foreign banks' liquidity and capitalization are generally less affected by a crisis.

H11: Foreign banks have less volatile liquidity levels and capitalization compared to domestic banks.

The intuition is that foreign banks can hope for parental support during crisis and so they can be more efficient by holding lower capital ratio during crisis. Domestic banks have to hold higher capital ratios during crisis to prevent bank failure. Table 2.17 presents the average capital ratios (CAR) of foreign and domestic banks.

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[15] The mean of growth is calculated as $(x_t - x_{t-1})/(\frac{1}{2}x_{t-1} + \frac{1}{2}x_t)$. This growth has a maximum value 2 and minimum value -2. Bank market shares are used as weights. The standard growth rate of deposits is presented in Appendix 17.

Table 2.17. Total capital ratio[16] of foreign and domestic banks

Variable	Crisis	Obs.	Weight	Mean	Std. Dev.	Min.	Max.
CAR_dom	NO	219	12.9719179	0.1523677	0.0639959	0.002	0.832
CAR_for	NO	267	28.82657	0.1767247	0.1020424	0.0384	1.847
CAR_dom	YES	147	8.1996036	0.1804458	0.1104678	–0.028	1.34
CAR_for	YES	164	14.7592412	0.1781182	0.0989821	0	1.676

Source: author's calculations.

Table 2.17 shows that the mean value of CAR in foreign banks is almost the same for the crisis and non-crisis periods, while the CAR of domestic banks is higher during the crisis period. This result indicates that there is a possibility of moral hazard. It is possible that foreign banks are taking too many risks and are hoping for parental support. The results in Table 2.17 show that the standard deviations of variables are quite high and no statistically significant differences were found (see also Appendix 18 to compare with the equity to total assets ratio).

Next the liquidity of foreign and domestic banks is analyzed. The liquidity is calculated as the ratio of liquid assets to total assets (LIQTA). Table 2.18 shows that foreign banks generally have higher liquidity than domestic banks. The author has also calculated the t-test to analyze the statistically significant differences between the liquidity levels of foreign and domestic banks. The results of the t-test are reported in Appendix 25. The t-test does not allow for weights, and therefore the average values of LIQTA presented in Appendix 25 are different from those in Table 2.18. The t-test shows that foreign banks have a statistically significantly higher liquidity level (42.9%) than domestic banks (40.5%) during non-crisis periods, while the liquidity in crisis periods is about the same. The results in Table 2.17, 2.18 and Appendix 25 indicate that domestic banks adopt a defensive attitude during crisis. This result is consistent with Weller (2000) who concluded that in the presence of foreign banks, domestic banks reduce credit in order to reduce risks and so prevent bank failure. Tables 2.17 and 2.18 indicate that the mean values of capitalization and liquidity are less affected by foreign banks in periods of crisis, indicating generally stronger financial stability. Consequently, **Hypothesis 11 is supported by the research results.**

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[16] Total capital ratio and capital adequacy ratio are used as synonyms.

Table 2.18. Liquidity of foreign and domestic banks

Variable	Crisis	Obs.	Weight	Mean	Std. Dev.	Min.	Max.
LIQTA_dom	NO	573	26.134303	0.395911	0.18484	0.02522	0.95621
LIQTA_for	NO	585	38.861759	0.413245	0.15807	0.00342	0.99114
LIQTA_dom	YES	342	21.242261	0.373023	0.22438	0	0.99723
LIQTA_for	YES	288	22.707133	0.419482	0.18535	0.02833	0.94742

Source: author's calculations.

It is quite reasonable to assume that foreign banks are supported by their parent banks in times of recession. Cárdenas *et al* (2003) suggest, that the entry of foreign banks can be a source of contagion. If the market share of foreign banks from a single country is very high, then there is a potential risk of contagion to both the home and the host country. Table 2.19 presents the distribution of bank capital flows into the transition economies from the EU countries.

Table 2.19. Bank capital into the CEE countries from EU-15 in 2001 (%)

Country	Czech R.	Esto-nia	Hun-gary	Latvia	Lithu-ania	Poland	Slo-vakia	Slo-venia	Total
Austria	7.5	0.8	6.7	0.3	0.6	5.8	7.9	14.9	6.3
Belgium	40.9	0.3	18.5	0.0	0.1	12.6	14.4	7.4	19.0
Finland	0.0	12.8	0.0	26.5	4.8	0.5	0.0	0.0	1.4
France	15.5	0.0	4.0	0.3	44.1	3.9	4.9	24.4	8.9
Germany	28.4	8.6	51.7	19.3	15.4	36.5	17.6	45.6	34.1
Italy	0.9	1.2	11.0	0.3	0.3	23.9	46.9	5.6	14.9
Nether-lands	6.3	0.3	4.8	0.3	0.4	12.8	7.3	1.7	7.7
Portugal	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Spain	0.4	0.0	0.5	0.0	0.0	0.4	0.0	0.2	0.4
Sweden	0.1	76.0	0.1	53.0	34.3	2.4	0.6	0.0	6.3
United Kingdom	0.0	0.0	2.5	0.2	0.1	1.0	0.3	0.1	0.9

Source: authors' calculations based on Baudino *et al* 2004.

The share of two major investors in each of the CEE banking markets is marked with grey filling, dark grey standing for the biggest and light grey for the second biggest share of a country. The table 2.19 contains bank capital flows only from EU-15 countries, investments from other countries not being included. Therefore 100% share would mean that all bank capital from EU-15 comes from a single EU-15 member state. The share of two major investors in each of the CEE banking markets is marked with grey filling, dark grey standing for the biggest and light grey for the second biggest share of a country. The table

contains bank capital flows only from EU-15 countries, investments from other countries not being included. Therefore 100% share means that all bank capital from EU-15 comes from a single EU-15 member state. Table 2.19 indicates that the ownership is most concentrated in Estonia, where 76% of bank capital inflow is from Sweden. Capital concentration is also high in Latvia, where 53% of EU-15 bank capital inflow is from Sweden. 51.7% of EU-15 banking investments in Hungary come from Germany. Table 2.19 indicates that German and Belgian banks are very active in the CEE countries. Appendix 20 presents the capital flows to the CEE banking also in absolute values. The potential risk of contagion is highest in Estonia, Latvia and Hungary.

Table 2.20 shows the distribution of banking claims from single EU-15 member states between different CEE markets. The shadowed cells in the table indicate the situation when there is a high concentration of ownership in banking in a CEE country while at the same time the same the CEE country is the main target market for banks from that EU-15 member state. Table 2.20 shows that there are two such countries: Sweden and Belgium. The risk of contagion is particularly high for Estonia, where Swedish banks are very strongly dominating the market; at the same time, Estonia and the other Baltic States are the main CEE target markets of Swedish banks. For the Swedish banking system, the risk that possible banking crises may affect the soundness of mother banks is quite high. 85% of banking investments from Sweden to the CEE countries is in the Baltic States. Nevertheless, the share of assets in the Baltic States in the Swedish banks' total assets is not very significant.

Table 2.20. Distribution of investments in CEE countries from EU-15 in 2001 (%)

Country	Czech R.	Esto- nia	Hun- gary	Latvia	Lithu- ania	Poland	Slo- vakia	Slo- venia
Austria	27.2	0.5	20.0	0.1	0.4	34.1	9.4	8.3
Belgium	49.8	0.1	18.4	0.0	0.0	24.6	5.7	1.4
Finland	0.0	33.9	0.4	38.3	14.8	13.0	0.0	0.0
France	40.2	0.0	8.5	0.1	21.1	16.2	4.2	9.7
Germany	19.3	0.9	28.6	1.1	1.9	39.6	3.9	4.8
Italy	1.4	0.3	13.9	0.0	0.1	59.3	23.6	1.3
Nether- lands	18.7	0.2	11.8	0.1	0.2	61.3	7.1	0.8
Portugal	14.3	0.0	14.3	0.0	0.0	57.1	0.0	0.0
Spain	26.7	0.0	26.7	0.0	0.0	43.3	0.0	1.7
Sweden	0.4	44.4	0.2	16.9	23.2	14.1	0.8	0.0
United Kingdom	0.0	0.1	53.2	0.3	0.7	42.8	2.6	0.3

Source: authors' calculations based on Baudino *et al* 2004.

The author has computed the ownership concentration index in the CEE countries. The results are given in Figure 2.31. This is not the real ownership index, but only estimates the concentration of banking investments from EU-15, but as European banks are the main foreign banks in the CEE countries, then this can to some extent, with certain reservations be interpreted as the foreign ownership index. This is the Herfindahl-Hirshmann-type index calculated as sum squares of market shares.

Figure 2.31 shows that the only country with a really high concentration of ownership into one county is Estonia, where the value of the index is more than 6000, while it is significantly lower in all the other CEE countries observed. Unfortunately, the share of equity owned by residents of non-EU member states in Estonia is very low, and therefore it can be concluded again that the risk of contagion effect from Swedish banks is quite high in Estonia.
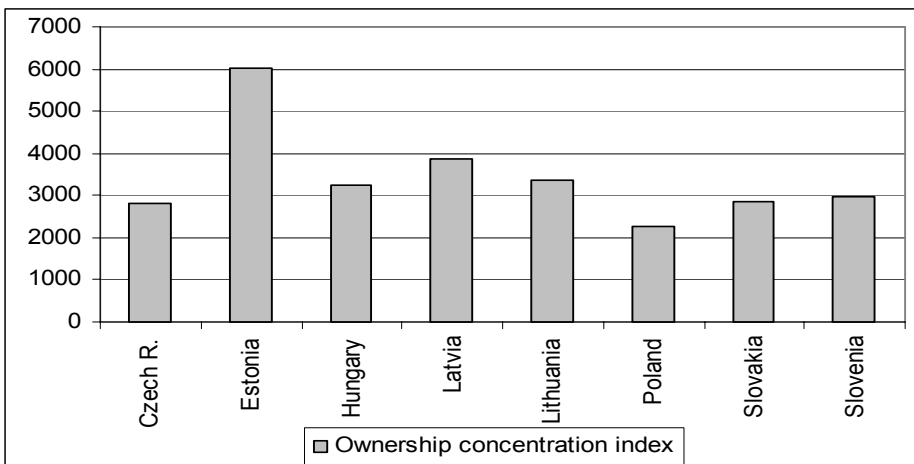
Figure 2.31. Concentration of ownership of the banks in the CEE countries (author's calculations).

Table 2.21. presents the summary of the tested hypotheses about foreign banks' entry effects on the stability of the banking market. Foreign banks' entry in terms of numbers is associated with the decrease in loan losses of local banks and Hypothesis 8 is partially supported. In general, foreign banks have a more stable supply of credit over time and thus Hypothesis 9 is supported. Foreign banks are also likely to enter during banking crises, so Hypothesis 4 holds as well. Hypothesis 10 was tested to analyze the stability of the deposits held in foreign and domestic banks and the possible "flight to quality" phenomenon. The analysis supported Hypothesis 11. Both the capitalization and liquidity of foreign banks was less affected by banking crises in the CEE countries.

Table 2.21. A summary of the hypotheses about how foreign banks' entry impacts on banking market stability

Stability factor	Number of Hypothesis	Validity
Entry timing	4	Supported
Loan loss provisions	8	Partially supported
Credit growth	9	Supported
Growth of demand deposits	10	Supported
Capitalization	11	Supported
Liquidity	11	Supported

The overall conclusion of this section is that foreign banks' entry is likely to increase the stability of the banking markets in the CEE countries. Foreign banks' entry is associated with a better quality of banks' loan portfolios in host countries; they also have a more stable credit growth and higher liquidity as well as somewhat lower capitalization at the time of crisis. However, high ownership concentration, especially in Estonia, is a possible source of contagion.

The analysis showed that there are both competition and spillover effects of foreign banks' entry on the CEE banking sectors (see Figure 2.32).

The negative competition effects of foreign banks' entry were weaker in those countries whose banking market was more advanced, indicating that the technology gap hypothesis holds in the CEE banking markets. The entry of foreign banks was positively correlated with the quality of loan portfolios of local banks. The domestic banks had higher capital ratios and liquidity over time. This result indicates that there is a positive competition effect of foreign banks' entry also on the stability of domestic banks. Additionally, there were some positive spillover effects of know-how transfer to local banks. The survey results indicate that the main technology spillover from foreign to domestic banks has been in the field of risk management. Therefore there is also a positive spillover effect on the stability of domestic banks.
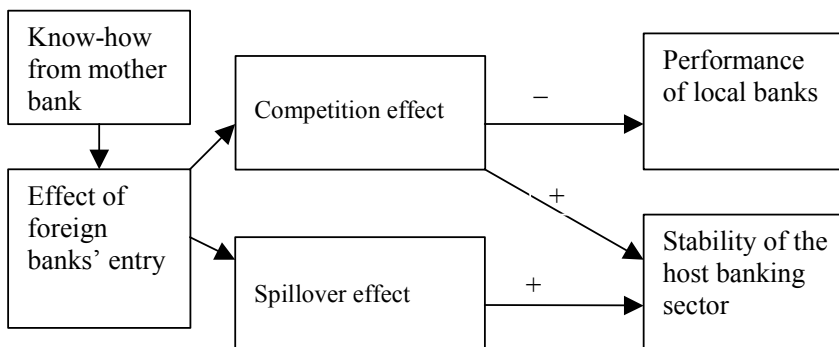
Figure 2.32. Estimated effects of foreign banks' entry on the CEE banking sector. (Compiled by the author).

An analysis of the hypotheses indicates that the literature about the effects of FDI on the domestic industry is equally applicable to the banking sector and suits for explaining the influence of foreign banks' entry on the performance and stability of banks in the CEE countries.

CONCLUSION

The dissertation consists of two main chapters. The first chapter gives a review of the main internationalization theories and discusses the main theoretical benefits and risks of foreign banks' entry into transition economies. In Chapter 1 an integrated framework of foreign banks' entry is developed. The eclectic paradigm and the financial liberalization framework were used to explain the internationalization of banks and its implications. Chapter 2 of the dissertation tests the validity of hypotheses about the motives and impact of foreign banks' entry on the CEE countries. Two main sources of data were used. The strategies and general opinion about foreign banks' entry was analyzed by a survey among foreign and domestic banks in four CEE countries. The foreign banks' entry effects on the performance and stability of host markets were analyzed by means of statistical methods. The unique dataset containing different bank-specific and country-specific variables was used.

Theoretical concepts of banks' internationalization and its impact on banking sectors in the transition countries

In order to develop the theoretical framework for the dissertation, mainly two lines of literature were integrated. To explain the internationalization process of banks in transition countries, the eclectic paradigm (the OLI theory) was applied to banking. The eclectic paradigm concentrates on the assets advantages and transactional advantages that a foreign bank can exploit to enter a particular market. The importance of ownership advantages, such as better reputation and better access to capital markets in the OLI paradigm was the main reason for selecting that theory to explain foreign banks' entry into the CEE markets. Another important pillar of the OLI theory is the location advantages that foreign banks can exploit. As the banking markets in the CEE countries are developing fast, the hypothesis that the main motivation for foreign banks' entry is the search for new business opportunities was formed. This entry motive is described as the market-seeking strategy of banks in the OLI theory.

The OLI paradigm was integrated with the financial liberalization (FL) framework as for the transition economies the removal of entry barriers, liberalization of interest rates, and early crises are important in the development of the banking sector. The OLI paradigm does not explicitly explain the timing of foreign bank entry as the theory is rather focused on the internationalization of non-financial firms. The FL framework explains the essence of financial

liberalization in financial crises and the opportunity for foreign banks to enter in times of crisis.

The theoretical conceptions about the impact of foreign banks' entry on the performance and stability of the host banking market are still at the stage of being developed as the internationalization of banks in less developed countries (LDCs) is a very topical process with a short history. There are no comprehensive theories to explain the effects of foreign banks' entry on LDCs. The research done in that field is mainly empirical. Nevertheless, there is a range of hypotheses about the impact of foreign banks on the LDCs that have proved to hold in the majority of countries. In the current dissertation the theory of FDI was applied to banking sector to explain the effect of foreign banks' entry on the performance in domestic banking sector.

The main positive effects deriving from foreign banks' entry suggested by scholars are: better service quality and service availability; economies of scale and scope; development of institutional framework, higher efficiency of the host market, higher stability of the financial sector of the host market. The main adverse effects of foreign banks' entry are suggested to be: foreign control of high-income industry; the "cut and run" behavior during crises; the "cherry picking" behavior of foreign banks; difficulties in controlling the activities of foreign branches.

The conclusion drawn by several researchers was that foreign banks' entry is associated with higher efficiency of domestic banking markets. The studies have shown that foreign banks' entry leads to a decline in interest margins, improving the overall efficiency of the banking sector. It has also been shown that the denial of entry for foreign banks would result in comparatively higher interest rate margins. The technology gap hypothesis has also been discussed, suggesting that the effects of foreign banks' entry and a positive spillover is more important for comparatively less developed banking sectors.

The research done to analyze the foreign banks' impact on the stability of the banking sector mainly concludes that the entry of foreign banks is likely to contribute to financial stability. The "flight to quality" hypothesis has been described as a phenomenon of moving deposits from domestic banks to foreign banks during a crisis. The author suggests that the "flight to quality" could work as an additional tool for preventing bank panics in LDCs. Another important positive effect of foreign banks is that their credit supply is less volatile and is not so much affected by economic shocks. Several hypotheses in that field were constructed in the dissertation to test the possible effects of foreign banks' entry into the CEE banking markets.

Research methodology and data

The empirical study of the thesis is divided into three main categories that are based on two main sources of data. The first part of the empirical research is based on a survey conducted among foreign and domestic banks between 2001 and 2002 in Estonia, Lithuania, Poland, and Romania. Some comparative data were available also from a Croatian analogous study. The aim of the survey was to find the motives for foreign banks' entry, their strategies and the implications of internationalization on both domestic and foreign banks in the CEE countries. Several questions in this field where asked, the most relevant of them for the dissertation being: what where the main reasons for foreign banks to enter the CEE market; what are the main target client groups of foreign and domestic banks; what are main advantages of foreign and domestic banks and what are the most important adoptions from mother banks in terms of banking technology? The questions were formed in a five-point scale, where 1 stands for least relevance and 5 for most relevant items.

The response rate of the survey was satisfactory and enabled the author to carry out a qualitative analysis of the banks' internationalization in the CEE countries. The author had no full access to the filled-out questionnaires of any other countries but Estonia, where the author was responsible for interviewing bank managers on the basis of the survey questions. Therefore the comparative data cover only mean values of answers and do not enable controlling for the standard deviation of the mean. This is the main shortcoming of the conducted survey. Nevertheless, a unique database of fully comparable questions about foreign banks' entry in different countries was created, allowing for a qualitative study on the research topic.

An advantage of questionnaire-type analyses is the possibility to reveal banks' strategies and the future perspectives of foreign and domestic banks that would be difficult to analyze with statistical data.

The second main part of the empirical study was formed to analyze the effect of foreign banks' entry on the performance and stability factors of host banking markets. A unique panel dataset consisting of 319 banks from 10 Central and Eastern European countries was compiled. Bank-level balance sheet data for the period 1993–2003 were integrated with country-specific macro variables. The balance sheet data were obtained from the Bureau van Dijk BankScope 2005 database provided by the Bank of Estonia. Country-specific variables were obtained from different sources of international statistics, such as the EBRD Transition Report and International Financial Statistics (IFS) provided by the World Bank. The dataset was unbalanced because of many mergers and bankruptcies of banks during the observable period. A banking crisis variable was included into the dataset to control for different behavior of foreign and domestic banks during crises.

In order to analyze the effect of foreign banks' entry on the performance of local banks, the regressions for the period 1995–2001 were estimated. The econometric model first used by Claessens *et al* 2001 was developed further to analyze the interactive effects of banking market development and bank market share. The main dependent variables analyzed were net interest margin, other operating income to total assets, pre-tax profit to total assets, overhead costs to total assets and loan loss provisions to total assets. The main independent variables were foreign banks' share in the total number of banks and foreign banks' share forming the total banking market assets in different countries in different years. A bank was considered to be foreign when at least 50% of its share capital was foreign-owned.

The main estimation method was Arellano-Bond's dynamic panel data estimation. This method enables the researcher to control also for instrument variables. This method is suitable when there is a problem of endogeneity in equations. Both foreign and domestic banks were included in the sample. The use of the first difference of variables ensured that the accounting data of an entering foreign bank was exogenous.

In order to analyze the effect of foreign banks' entry on the stability of the host banking market, a comparative statistical analysis was used. The volatility of credit growth was analyzed, measured as the standard deviation of the credit portfolio growth of foreign and domestic banks. Grouped mean comparisons were used to analyze the mean values of the deposits growth, liquidity and capitalization of foreign and domestic banks. T-tests were computed to control for the significance of the differences between foreign and domestic banks.

Validity of the hypotheses and the generalization of the research results

Three types of hypotheses were proposed in the dissertation on the basis of the theoretical framework of the internationalization of banks in the CEE countries. The first four hypotheses analyze the internationalization process of banks. Hypothesis 1 was constructed to analyze the foreign entry motives of foreign banks while hypotheses 2 and 3 are set to analyze main advantages and know-how transfer in foreign banks. Hypothesis 4 tested the timing of foreign banks' entry. The second type of hypotheses is associated with impact of foreign banks' entry on the performance of host countries banking market. Hypotheses 5, 6 and 8 were formed to analyze the effect of foreign banks on various performance measures of local banks. Hypothesis 7 was formed to reveal possible interaction between the impact of foreign entry and banking market development and interaction between foreign entry and bank's market share. Hypotheses 8–11 where proposed to analyze possible effect of foreign banks

entry on the stability of host country banking market. Credit stability, deposit growth, liquidity and capitalization were analyzed.

H1: The market-seeking is the predominant entry motive of foreign banks on the CEE markets.

This hypothesis was tested by a qualitative survey. The hypothesis was supported by the survey. However, in different countries other traditional entry motives, such as following the customers and following the expansion strategy were also mentioned among important entry motives. The search for new business opportunities was notably the most important motive for foreign entry in all the observed countries (Estonia, Lithuania, Poland, and Romania). The average score by foreign banks for this answer was 4.58 on the five points scale. The domestic banks were also asked about their opinions about entry motives of foreign banks. Again the highest average score was that of searching for new business opportunities (4.68).

H2: Foreign banks can exploit their ownership advantages on the CEE markets.

This hypothesis was supported by the survey results. The reputation (average score 4.03) was reported to be most important comparative advantage of foreign banks, and the range and quality of banking services was reported to be the second biggest advantage of foreign banks with average score 3.9, and the lower cost of funding resources was the third biggest advantage of foreign banks. Domestic banks evaluated loan interest rates (average score 3.85) as the biggest advantage of foreign banks. This result shows that domestic banks are feeling a strong competitive pressure from foreign banks in the CEE markets. Foreign banks claimed that their main disadvantages in comparison with domestic banks were legal impediments and internal communication. This result shows that foreign banks have difficulties in adjusting to their host market's business environment. The domestic banks evaluated as the main disadvantage of foreign banks their poor knowledge of the local client base (average score 2.1).

H3: There is a transfer of know-how from parent banks to foreign banks and a spillover effect of this knowledge transfer on domestic banks.

This hypothesis was strongly supported by the survey results. Foreign banks both in Estonia and Romania declared risk management systems to be the most important adoptions from mother banks (average score 4.7 in Estonia and 4.35 in Romania). Credit policy in Estonia and costs management in Romania were also reported as important adopted know-how by the foreign banks. The domestic banks were also asked about the spillover effects of foreign banks' entry into the host market. The information systems in Romania and liquidity risk management in Estonia were evaluated to get the positive spillover-effects

from foreign banks. Interest rate risk management and solvency risk management techniques were the most important know-how from parent banks to foreign banks in Estonia.

H4: The entry of foreign banks into the CEE markets is more intensive during banking crises.

This hypothesis was supported by the analysis. The average number of new banks entering the CEE markets was 2.4 during crisis and 1.0 during non-crisis. The difference was statistically significant. This result indicates, that during crises have foreign banks higher motivation to enter into new market. The reason could be lower entry costs and good possibility to gain market share by using banks good reputation.

H5: The net interest margin, non-interest income and profitability of a bank in a given country are negatively correlated with foreign banks' share in that country.

This hypothesis was partially supported by the regression analysis of foreign banks entry. There was a negative but statistically insignificant correlation between foreign banks' entry and the net interest margins (NIM) of local banks. Instead of the correlation between foreign banks' entry variables and the banks' interest income from interest-earning assets (ALINT) was tested. The foreign banks' share in the total number of banks was negatively associated with ALINT. The results show that foreign banks create additional competition on the credit market and the average loan interest rates fall. The interest costs are not directly affected by foreign banks' entry and therefore the overall effect of foreign banks entry on NIM is statistically not significant.

Neither the foreign share in the assets nor the foreign share in the number of banks were statistically significantly correlated with non-interest incomes of the local banks. The analysis showed that there is a statistically significant negative correlation between foreign banks' entry and non-interest income of local banks when interactive variables with the banking market development proxy and banking market share were introduced. The results indicated that foreign banks' entry is negatively associated with non-interest income of local banks, but this effect was weaker for banks operating in a more developed banking market or for banks with a bigger market share.

Foreign share in assets and foreign share in bank number were not correlated with profitability of local banks. When the interactive term with the development of the banking market was included into regressions, then the foreign banks' share in the total banking market assets was negatively correlated with the profitability of local banks, having a weaker effect in more developed banking markets. The results indicate that in more developed countries the decline of profits is not so significant as the competition has already decreased the profits. According to the responses of the domestic banks in the survey, the

foreign banks' entry had reduced the profitability of the domestic banks and had increased the overall competition.

H6: The overhead costs of a bank in a given country are positively correlated with foreign banks' share in that country.

This hypothesis was partially supported by the regression analysis, but the support was rather limited. Foreign share in assets and foreign share in the number of banks were not correlated with the overhead costs of local banks. When the interactive term with the banking market development was included into regressions, then the foreign banks' share in the total number of banks was positively correlated with the overhead costs of the local banks. This effect was weaker in more developed countries. The results showed that foreign entry may increase the non-interest costs of local banks. As a great share of the non-interest costs of a bank are personnel expenses, then this relationship is intuitively quite consistent. As wages in foreign firms are usually higher, then local banks are also compelled to raise salaries to keep the highly skilled employees from moving to work for a foreign bank. In more developed banking markets, the differences between foreign and domestic banks are smaller.

H7: Foreign banks' entry effects on local banks' performance depend on their market share and the level of development of the banking market in the host country.

This hypothesis was supported by the regression analysis. As discussed above, the development of the banking market reduced the effects of foreign banks' entry on interest income, non-interest income, overhead costs, and profitability. This result is consistent with the technology gap hypothesis. Foreign banks' entry has less effect on more developed markets. Therefore it can be further hypothesized that the effect of foreign banks on the performance of domestic banks in the CEE countries is likely to decrease in the future as the markets converge. The survey results also support the hypothesis. The lowest average effect of foreign banks' entry on the host banking market was evaluated by Estonian domestic banks. In countries where the banking market is less developed, such as Romania and Poland, the effects of foreign banks' entry were higher.

The results showed that foreign banks entry has negative effect on non-interest income and loan loss provisions of local banks. These effects were weaker for the banks with higher market shares. It seems that bigger banks are somewhat less affected by the entry of foreign banks.

H8: Foreign ownership in the banking sector is negatively correlated with the banks' loan loss provisions.

This hypothesis was partially supported by the regression analysis. Foreign banks' share in the total number of banks was negatively associated with the loan loss provisions of the local banks, while the effect was not clear with foreign banks' share in the total banking market assets. At the same time, the loan loss provisions of banks with a higher market share are less affected by foreign entry. The regression analysis also revealed that bank accounting variables do not affect the loan loss provisions of banks, indicating that the accounting variables do not reflect the credit risk of a bank. The analysis showed foreign banks' entry to be associated with the higher credit portfolio quality of local banks. This result indicates that foreign entry is associated with better credit risk management by banks.

H9: Foreign banks have a less volatile growth of credit over time.

This hypothesis was supported by the analysis. The volatility of credit supply growth in domestic banks was measured to be higher during 1995–2003. This result indicates that foreign banks are better capitalized and can provide credit even in times of crisis. At is was tested by the Hypothesis 10, foreign banks also benefit from deposits flight to them from domestic banks, which enables them to provide more stable credit also during crises. The growth of credit is also associated with the overall growth of banks. Foreign banks are more stable in that respect.

This hypothesis was supported by the analysis. The volatility of credit supply growth by domestic banks was measured to be higher during 1995–2003. This result indicates, that foreign banks are better capitalized and can provide credit also during crises times. At is was tested by the hypothesis 10, foreign banks also benefit from deposits flight from domestic banks to foreign banks and that enables them to provide more stable credit also during crises periods. The credit growth is also associated with overall growth of banks. Foreign banks are more stable in that respect.

H10: There is an additional inflow of demand deposits into foreign banks during a banking crisis.

This hypothesis was set up to test the possible presence of "flight to quality" phenomenon in the CEE countries. The hypothesis was supported by the analysis. The results indicate there has been a flight of demand deposits from domestic banks into foreign banks during the crises periods. The result also indicates that foreign banks are more trusted during the crises. As it was tested also in the hypothesis 2, the main advantage of foreign banks in the CEE countries was the reputation. As foreign banks have entered the markets during the crises periods, then the reputation has been especially important and that also explains the flight to quality phenomenon during banking crises.

H11: Foreign banks have less volatile liquidity levels and capitalization compared to domestic banks.

This hypothesis was supported by the analysis. While the mean values of capitalization and liquidity of foreign banks were only little affected by crises, the same indicators of domestic banks were significantly affected. The analysis showed that both the capitalization and liquidity increased in domestic banks during a crisis. This result reflects the defensive behavior of domestic banks with the aim of preventing bank failure. The overall liquidity of foreign banks was statistically significantly higher than that of domestic banks. The result indicates that foreign banks have better access to the international interbank money markets.

Generally it can be said that the hypotheses explaining the internationalization process of banks and the hypotheses discussing foreign banks' impact on the stability of banking markets in the CEE countries were well supported. The main entry motive for foreign banks has been searching for new business opportunities, while the timing of market entry was set to times of crisis. Foreign banks can use their ownership advantages, such as a better reputation and better quality of banking services. There has also been a significant transfer of risk management know-how from parent banks to their subsidiaries and branches operating in the CEE countries. There were also some positive spillover effects of know-how transfer for the local banks. Thus foreign banks have contributed to the development of the CEE banking markets.

The analysis showed that foreign banks' entry is associated with higher banking market stability factors in the CEE countries. The hypotheses analyzing the stability effects of foreign banks' entry were well supported. Foreign banks' entry contributes to the stability of banking markets. The hypotheses about foreign banks' entry effects on the performance of the host banking market were partially supported. Foreign banks' entry is negatively associated with loan interest rates, non-interest income and loan loss provisions as well as the overall profitability of local banks, while it may increase overhead costs. Foreign banks' entry effects were weaker in countries with more highly developed banking markets, indicating that the effect of foreign banks' entry on banks performance is likely to decrease in the future.

The possible risk of contagion was also discussed in the study. There is a very high ownership concentration in Estonia, where 76% of the banks' equity is held by Swedish banks. This ratio is likely to increase in the near future, when Swedbank acquires 100% of the biggest Estonian bank − Hansapank. Ownership concentration is also quite high in Latvia, where Swedish banks are also very active. Ownership concentration in the other CEE countries was not very significant. The possible contagion effect can go in both directions: the Swedish banks would also be affected by adverse scenarios in the Baltic States.

The results of the dissertation could be useful for countries at an early stage of transition market economy. The entry of foreign banks has contributed to the

development of the transitional banking markets. The interest of foreign banks to enter the Eastern European transition countries such as Russia, the Ukraine and Belarus is great. The results of the dissertation suggest that the entry of foreign banks has a mainly positive income and the removal of any entry barriers to foreign capital into the banking sector is suggested. The high concentration of ownership has to make us cautious because of geographically less diversified risks and potential contagion.

Recommendations for future research

There are several possibilities for developing the research in the field of foreign banks' role in less developed banking markets further. One way to analyze the activities of foreign banks further is to obtain more insight into the role of ownership effects on the strategies of banks operating in the CEE markets. Of course, not foreign ownership per se, but the business knowledge and business culture of the home country could matter.

As the banking markets are becoming more and more internationalized, and the overall economic development of the EU member states is supposed to converge, it would be important to concentrate in the future more on the possible contagion effects that might affect the stability of the financial sector.

This study concentrated on the internationalization of the commercial and savings banks in the CEE countries. The internationalization of insurance companies and *bank insurance* have not been studied any thoroughly of late.

The study did not try to analyze if foreign banks' entry would avoid banking crises in the CEE countries. The very short period of development does not enable drawing conclusions about the likelihood of banking crises in the presence of foreign banks, as there have been no banking crises in the past few years when foreign banks have dominated the markets. There are some cross-country studies in that field indicating that foreign banks' presence in likely to reduce the probability of banking crises, but that effect in the CEE countries is unknown yet.

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APPENDICES

Appendix 1. Biggest banks in the CEE countries and their ownership

Country	Three biggest banks	Major owner (country of origin)*
Bulgaria	Bulbank A. D. United Bulgarian Bank DSK Bank	Unicredito (IT) National Bank of Greece (GR) Public
Czech Republic	CSOB Ceska Sporitelna Komercni Banka	KBC (BE) Erste Bank (AT) Société Generale (FR)
Estonia	Hansapank Ühispank Sampo Pank	Swedbank (SE) SEB (SE) Sampo (FI)
Hungary	Parekss Banka Kereskedelmi és Hitelbank Central-Europ. Intern. Bank	Dispersed private owenership KBC (BE) Bayeriche Landesbank (DE)
Latvia	Pareks Banka Latvijas Unibanka Aizkraukles	Europe Holding (GB) SEB (SE) Board of directors
Lithuania	Vilniaus Banka Lietuvos Taupomasis Bank Snoras	SEB (SE) Swedbank (SE) Incorion Investments (LT)
Poland	Bank Pekao Bank Handlowy PKO BP	Unicredito (IT) Citibank (US) Public
Slovakia	VUB Slovenska Sporitelna Tatra Banka	Intesa (IT) Erste Bank (AT) RZB (AT)
Slovenia	NLB NKBM SKB banka	KBC (BE) Public (65% privatised in 2001/2002) Société Generale (FR)

Note: * – the data is for the end 2001, due to the ongoing changes in ownership, the data has to be interpreted with caution.
Source: Baudino *et al* 2004, p. 26

Appendix 2. Main Reasons for Entry
to the Host Country Market

Reason	Domestic banks					Foreign banks				
	ES	LI	PO	RO	Mean	ES	LI	PO	RO	Mean
Following the existing clients	4,0	3,8	3,0	3,9	3,68	4,0	3,2	3,0	3,1	3,33
Looking for new business opportunities	4,7	4,8	4,5	4,7	4,68	4,4	4,8	4,2	4,9	4,58
International trade financing	3,7	3,0	2,6	3,0	3,08	3,6	3,5	2,7	3,4	3,30
Meeting competition of other banks	3,7	2,3	3,3	2,0	2,83	2,8	3,3	3,4	3,2	3,18
Following expansion strategy	4,3	4,5	2,9	4,5	4,05	2,8	4,3	4,2	4,2	3,88
Supporting the local client base	2,7	3,5	3,6	3,2	3,25	4,0	3,7	3,4	3,6	3,68
Foreign exchange trading	1,0	2,0	2,3	2,0	1,83	2,2	2,5	2,4	2,0	2,28
Portfolio management	2,3	3,5	2,3	3,2	2,83	2,4	2,5	2,2	2,0	2,28

Note: evaluations are in five point scale (1 – not important at all, 2 – not important, 3 – moderate importance, 4 – important, 5 – very important).
Source: Dubauskas (2002); Florescu (2002); Kowalski, Uiboupin and Vensel (2002).

Appendix 3. Importance of Different Host Country Market Specifics

Specific feature	Domestic banks					Foreign banks				
	ES	LI	PO	RO	Mean	ES	LI	PO	RO	Mean
Macroeconomic and political stability	4.0	4.5	3.8	4.8	4.28	4.6	3.8	4.0	4.0	4.10
Liberal economic environment	4.7	3.3	3.3	3.2	3.63	3.8	3.2	3.6	3.1	3.43
Potential for future EU membership	4.3	3.8	4.5	3.7	4.08	4.0	3.3	4.4	3.2	3.73
Relatively high interest spreads	4.0	3.5	3.3	3.4	3.55	3.0	2.5	3.5	2.3	2.83
Good expansion opportunities	3.7	4.0	3.8	3.8	3.83	3.8	3.7	4.0	3.5	3.75
Geographical, cultural, proximity	4.3	2.3	2.0	3.0	2.90	3.4	3.0	1.6	3.0	2.75
Existing clients and potential new clients	3.7	4.3	3.6	4.0	3.90	3.8	3.8	3.6	4.0	3.80
Presence of competitor banks	2.7	3.0	3.3	2.5	2.88	2.8	2.3	3.3	2.0	2.60
Tourism development opportunities	3.0	1.5	1.8	1.0	1.83	2.0	1.7	1.5	2.0	1.55
Industry development opportunities	3.0	3.3	2.2	3.2	2.93	2.0	2.5	2.3	2.3	2.28

Note: evaluations are in five point scale (1 – not important at all, 2 – not important, 3 – moderate importance, 4 – important, 5 – very important).
Source: Dubauskas (2002); Florescu (2002); Kowalski, Uiboupin and Vensel (2002).

Appendix 4. Advantages and Disadvantages of Foreign Banks

Advantage/ Disadvantage	Domestic banks					Foreign banks				
	ES	LI	PO	RO	Mean	ES	LI	PO	RO	Mean
Expensiveness of funding sources	3.3	3.8	3.3	4.0	3.60	4.2	3.5	2.7	3.5	3.48
Loan interest rates	4.3	3.8	3.3	4.0	3.85	3.8	3.5	3.5	3.5	3.58
Employee quality and competence	4.0	2.8	3.7	3.0	3.38	3.0	3.3	3.9	3.5	3.43
Range and quality of banking innovations	3.0	2.8	4.3	3.0	3.28	2.4	3.8	4.4	4.0	3.90
Knowledge of the local client	2.3	2.5	1.6	2.0	2.10	2.4	3.0	2.0	3.0	2.60
More diversified portfolio	3.3	2.3	3.5	2.0	2.78	3.0	2.7	2.9	3.0	2.90
Superior mix of financial services	3.3	2.8	3.8	3.0	3.23	3.0	3.5	4.1	3.0	3.40
Better risk management	4.0	2.5	4.2	2.5	3.30	3.2	3.5	4.1	3.0	3.45
Reputation of foreign banks	4.0	3.5	–	3.7	3.73	3.4	4.2	4.5	4.0	4.03
Success of advertising campaigns	2.3	3.0	4.1	3.0	3.10	2.6	3.0	3.0	3.0	2.90
Legal impediments	3.0	3.0	2.5	1.0	2.38	2.4	2.3	2.7	2.0	2.35
Internal communication	3.0	2.8	3.0	1.0	2.45	3.0	2.5	2.5	2.0	2.50
Competition threat to domestic banks	3.3	2.5	3.6	2.0	2.90	3.8	3.2	3.8	3.5	3.58

Note: evaluations are in five point scale (1 – considerably less or worse, 2 – less or worse, 3 – about the same, 4 – better, 5 – considerably better).
Source: Dubauskas (2002); Florescu (2002); Kowalski, Uiboupin and Vensel (2002).

Appendix 5. Main Target Groups of Foreign and Domestic Banks

Target clients group	Domestic banks				Foreign banks				
	ES	PO	RO	Mean	ES	CR	PO	RO	Mean
Large domestic companies	2.0	–	4.0	3.00	4.0	3.4	4.1	4.0	3.88
Small and medium size domestic companies	4.3	–	4.5	4.40	2.8	4.4	4.5	3.8	3.88
Home country companies	2.7	–	4.0	3.35	3.8	3.2	3.3	4.5	3.70
International corporations	1.7	1.3	3.5	2.17	3.4	3.0	3.4	4.5	3.83
Foreigners and foreign investors	3.7	1.9	3.5	3.03	3.4	2.7	3.3	4.0	3.35
Large exporters	2.0	2.6	4.5	3.03	3.8	4.0	3.4	4.5	3.93
Households	3.7	4.0	4.0	3.90	3.0	4.5	3.8	2.0	3.33
High-income individuals	4.3	4.0	4.0	4.10	3.6	4.8	4.5	3.0	3.98
Sole proprietors	2.3	3.9	3.0	3.07	2.8	4.1	3.8	3.0	3.43

Note: evaluations are in five point scale (1 – not important at all, 2 – not important, 3 – moderate importance, 4 – important, 5 – very important).
Source: Kraft and Galac (2000); Florescu (2002); Kowalski, Uiboupin and Vensel (2002).

Appendix 6. Main Fields of Activities of Foreign and Domestic Banks

	Domestic banks				Foreign banks				
	ES	PO	RO	Mean	ES	CR	PO	RO	Mean
Corporate financing	4.3	3.7	4.5	4.17	4.2	4.6	4.2	4.0	4.25
Foreign exchange trading	4.0	2.3	4.0	3.42	2.4	3.5	3.4	3.8	3.28
International trade financing	2.3	1.9	3.5	2.57	3.0	4.5	3.3	3.5	3.58
Project financing	2.7	2.5	4.0	3.07	3.4	–	3.0	4.0	3.47
Dealing in securities market	3.0	2.5	3.0	2.83	2.6	3.2	3.3	2.0	2.78
Retail banking activities	3.3	3.9	4.0	3.73	3.2	4.8	4.0	4.0	4.00
Leasing	3.0	2.1	4.0	3.03	3.6	3.2	3.2	2.0	3.00
Cash and assets management	4.0	3.2	3.0	3.40	3.6	1.6	2.6	3.5	2.83
Capital market	4.0	2.3	3.0	3.07	3.2	2.4	2.6	2.0	2.55
Insurance activities	2.3	1.9	2.0	2.07	2.5	3.1	2.5	2.0	2.53
Non-financial activities	3.0	1.8	2.0	2.26	3.3	–	1.0	2.0	2.10

Note: evaluations are in five point scale (1 – not important at all, 2 – not important, 3 – moderate importance, 4 – important, 5 – very important).
Source: Kraft and Galac (2000); Florescu (2002); Kowalski, Uiboupin and Vensel (2002).

Appendix 7. Foreign Banks Motives for Long-term Stay on the Estonian and Romanian Market

Reason	ES	RO	Mean
Good future perspectives of doing business with home country clients	3.6	4.1	3.85
Good future perspectives of development the local client base	4.0	4.0	4.00
Perspectives for financing international trade	3.6	3.0	3.30
Regional expansion strategy of the bank for entry to other regional markets	3.2	3.5	3.35
Potential for development of capital markets	2.6	3.0	2.80
Continued pressure of competitor banks	3.0	1.0	2.00
Good future perspectives for foreign exchange trading	1.6	3.0	2.00
Inter-bank money market participation opportunities	1.8	3.0	2.40

Note: evaluations are in five point scale (1 – not important at all, 2 – not important, 3 – moderate importance, 4 – important, 5 – very important).
Source: Florescu (2002); Uiboupin and Vensel (2002).

Appendix 8. Evaluations of the Adoption of Mother's Bank Policies and Systems

Adjustments	Estonia	Romania	Mean
Information systems	3.3	2.0	2.65
Credit policy	4.5	3.0	3.75
Personnel policy	3.5	2.0	2.75
Price policy	2.8	2.0	2.40
Product/service mix policy	3.0	2.0	2.50
Risks management	4.7	4.0	4.35
Costs management	3.8	4.0	3.90
Choice of activities	3.5	4.0	3.75
Choice of target groups	3.3	3.0	3.15

Note: evaluations are in five point scale (1 – not important at all, 2 – not important, 3 – moderate importance, 4 – important, 5 – very important).
Source: Florescu (2002); Uiboupin and Vensel (2002).

Appendix 9. The Relevance of the Transfer of Know-How from Foreign Banks

Transferred know-how	Estonian banks			Polish Domestic Banks
	Foreign	Domestic	Total	
Liquidity risk management	4.0	4.0	4.0	3.8
Interest rate risk management	4.7	3.7	4.2	3.9
Solvency risk management	4.7	3.3	4.0	3.4
Credit risk management	4.3	3.3	3.8	3.9
Overhead costs management	4.0	3.0	3.5	3.9
Information systems	–	3.7	3.7	4.3
Credit policy	–	3.7	3.7	2.8
Personnel policy	–	3.7	3.7	3.1
Price policy	–	2.7	2.7	3.3
Product/service mix policy	–	3.3	3.3	4.2

Note: evaluations are in five point scale (1 – not important at all, 2 – not important, 3 – moderate importance, 4 – important, 5 – very important).
Source: Uiboupin and Vensel (2002).

Appendix 10. The Mother's Bank Assistance and Participation in Decision-Making

Assistance/participation in decision-making	Grade (1÷5)
Financial assistance in times of crises/troubles	4.0
Participation in largest credits approval	3.8
Assistance in strategic planning and decision-making	3.8
Assistance in operational planning and decision-making	3.3
Assistance in borrowing from international markets	4.3
Assistance in introducing banking innovations, new systems	3.3
Assistance in correspondent banking	3.8

Note: evaluations are in five point scale (1 – not assistance or participation at all, 2 – small assistance, 3 – moderate assistance, 4 – great assistance, 5 – very great assistance)
Source: Uiboupin and Vensel (2002).

Appendix 11. The Impact of Foreign Banks' Entry into the Host Country's Market

Impact	ES	CR	PO	RO	Mean
Increased of the overall competition in the market	4.0	4.6	4.5	4.0	4.28
Reduced the profitability and efficiency of domestic banks	3.3	4.2	3.1	3.0	3.40
Forced to re-organise the bank's organization to rise efficiency	2.0	4.2	4.1	3.0	3.33
Forced to change financial regulations by the central bank	2.0	3.6	2.4	2.5	2.63
Improved corporate governance of private firms	1.7	–	2.9	2.5	2.37
Forced to introduce new bank products/services	2.7	4.2	3.9	3.0	2.45
Forced to improve the quality of existing bank products/services	2.7	4.2	3.9	3.0	2.45

Note: evaluations are in five point scale (1 – not important at all, 2 – not important, 3 – moderate importance, 4 – important, 5 – very important).
Source: Florescu (2002); Kraft and Galac (2000); Uiboupin and Vensel (2002).

Appendix 12. The Degree of Competitive Pressure from Foreign Banks

Market segment	ES	LI	PO	RO	Mean
Short-term loans to first class business clients	3.0	4.0	4.2	4.0	3.80
Short-term loans to other business clients	2.7	3.5	3.3	3.0	3.13
Long-term loans to first class business clients	4.3	4.5	4.0	4.8	4.40
Long-term loans to other business clients	3.7	3.5	3.2	4.0	3.60
Consumer credits to households	2.7	2.5	2.4	3.0	2.65
Mortgage loans to households	4.0	3.3	3.3	3.0	3.40
Demand deposits of business clients	2.0	3.5	3.3	4.0	3.20
Demand deposits of households	2.0	2.3	2.8	3.0	2.53
Short-term time deposits	2.7	2.8	3.2	3.0	2.68
Long-term time deposits	2.7	3.0	3.3	3.5	3.13
Saving accounts	2.7	2.5	2.6	3.0	2.70
Payment services to business clients	2.7	3.5	2.5	3.0	2.93
Payment services to households	2.0	2.8	3.8	3.5	3.03

Note: evaluations are in five point scale (1 – not important at all, 2 – not important, 3 – moderate importance, 4 – important, 5 – very important).
Source: Dubauskas (2002); Florescu (2002); Uiboupin and Vensel (2002).

Appendix 13. Evaluations of the Prospects of Independent Survival

	Mid term					Long term				
	ES	LI	PO	RO	Mean	ES	LI	PO	RO	Mean
Independent survival	5.0	4.0	2.7	3.0	3.68	4.5	3.0	2.1	4.0	3.40
Merging with a DB	2.5	2.1	3.8	3.0	2.85	3.0	3.0	3.6	3.0	3.15
Selling ownership to DB	2.0	1.0	2.0	1.0	1.50	2.0	1.0	1.7	2.0	1.68
Merging with a FB	3.5	2.0	1.4	2.0	2.23	4.5	2.0	1.4	2.0	2.48
Selling ownership to FB	4.0	4.0	2.2	1.0	2.80	4.5	4.0	2.5	2.0	3.23
Hostile minority stake-bid by a FB	1.0	2.0	1.3	1.0	1.33	2.0	2.0	1.6	2.0	1.90
Hostile majority stake-bid by a FB	1.0	2.0	1.3	1.0	1.33	1.0	2.0	1.4	2.0	1.60

Note: evaluations are in five point scale (1 – not prospects at all, 2 – small prospects, 3 – moderate prospects, 4 – good prospects, 5 – very good prospects)
Source: Dubauskas (2002); Florescu (2002); Uiboupin and Vensel (2002).

Appendix 14. Description of variables

Variable	Source	Description
FBSN	Central banks, EBRD	Number of foreign banks as percentage of all banks in a given country and year
FSA	BankScope	Share of foreign banks' assets in total banking market assets in a given country and year
NIM	BankScope	Net interest income (interest income minus interest expense) over total assets
ALINT	BankScope	Interest income to interest earning assets
PTPTA	BankScope	Before tax profit over total assets
OOITA	BankScope	Non-interest income over total assets
OHTA	BankScope	Total operating expense (all but interest expenses) over total assets
LLPTA	BankScope	Loan loss provisions over total assets
ETA	BankScope	Equity over total assets
NEATA	BankScope	Non-interest earning assets over total assets
CSTFTA	BankScope	Shot and long term deposits, and other non-deposit short term funding over total assets
MSHARE	BankScope	Bank assets to total banking market assets in a given year
GGDP	EBRD	Real GDP annual growth rate
INCOME	EBRD	GDP per capita in th US dollars
CPI	EBRD	Annual CPI change
MMR	IFS	End of year money market interest rate
DCGDP	IFS	Private credit to GDP in a given country and year
CONC	Demirgüç–Kunt	The market share of three biggest banks in total banking market assets

Note: all variables are in percentages except GDP per capita (in US dollars (th), 1995 prices)

Source: Central banks' home pages, EBRD Transition Report 2002, 2003, 2004; Fitch IBCA's BankScope database; Asly Demirgüç–Kunt, Financial Structure and Economic Development Database, Worldbank, [http://www.worldbank.org/research/projects/Finstructure/database.htm]; International Monetary Fund. International Financial Statistics Yearbook 2002.

Appendix 15. Foreign bank's share in the total number of banks (percentages)

Country	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Bulgaria	2.5	7.3	7.1	25.0	50.0	51.2	71.4	74.3	76.5	71.4
Czech	38.2	41.8	43.4	48.0	55.6	64.3	65.0	68.4	70.3	74.2
Estonia	9.1	26.3	26.7	33.3	50.0	42.9	57.1	57.1	57.1	57.1
Croatia	2.0	1.9	8.6	11.5	16.7	24.5	48.8	55.8	50.0	46.3
Hungary	41.9	48.8	57.1	66.7	63.6	67.4	78.6	75.6	71.1	76.3
Lithuania	0.0	0.0	25.0	33.3	41.7	30.8	46.2	28.6	28.6	53.8
Latvia	0.0	26.2	40.0	46.9	55.6	52.2	57.1	43.5	43.5	43.4
Poland	13.4	22.2	30.9	34.9	37.3	50.6	63.5	71.9	76.3	79.3
Slovenia	13.6	15.4	11.1	11.8	10.0	16.1	21.4	20.8	27.3	27.3
Slovakia	48.3	54.5	48.3	44.8	40.7	40.0	56.5	63.2	83.3	76.2
Average	16.9	24.4	29.8	35.6	42.1	44.0	56.6	55.9	58.4	61.9

Source: Transition Report 2002, author's calculations

Appendix 16. Summary of estimations with fixed effects

	Model	ALINT	Non-interest income	Before tax profit	Overhead expenses	Loan loss provisions
Results	FBSN	–	–	–	NS	NS
	FBSN FBSN*DCGDP	NS	+ –	NS	+ –	NS
	FBSN FBSN*MSHARE	NS	– +	NS	NS	– +
	FSA	NS	NS	–	NS	+
	FSA FSA*DCGDP	NS	– +	– +	NS	NS
	FSA FSA*MSHARE	NS	NS	NS	NS	NS

Source: author's calculations
Note: + indicates a significant positive correlation
– indicates a significant negative correlation
ns indicates a relationship that is not statistically significant

Appendix 17. Mean values of demand deposit growth

Variable	Crisis	Obs	Weight	Mean*	Std. Dev.	Min	Max
Dep_growth_for	YES	151	6.34577523	0.2849	1.6471	−0.8939	48
Dep_growth_dom	YES	106	6.00513209	0.3234	0.8093	−0.8940	11.5
Dep_growth_for	NO	318	11.9693363	0.2994	2.5063	−0.8205	55
Dep_growth_dom	NO	281	23.3441573	0.2586	1.1029	−0.1	48

Note: *– the growth is calculated as annual growth compared with period t-1, %. Bank
market shares are used as weights.
Source: author's calculations

Appendix 18. Equity to total assets in foreign and domestic banks

Variable	Crisis	Obs	Weight	Mean	Std. Dev.	Min	Max
ETA_dom	NO	577	26.1382407	0.1065853	0.0852	−0.3846	0.8484849
ETA_for	NO	585	38.8617591	0.1020218	0.0484	0.00141	0.9814815
ETA_dom	YES	343	21.2928665	0.1072099	0.1048	−0.5550	0.9452055
ETA_for	YES	288	22.7071333	0.0838536	0.0738	−1	0.9512196

Source: author's calculations

Appendix 19. Financial Sector Indicators in the CEE countries

Country	Capital adequacy requirement	Deposit insurance system	Secured transactions law	Securities commission
Bulgaria	12%	YES	YES	YES
Croatia	10%	YES	YES	YES
Czech Republic	8%	YES	YES	YES
Estonia	10%	YES	YES	YES
Hungary	8%	YES	YES	YES
Latvia	10%	YES	RESTRICTED	YES
Lithuania	10%	YES	YES	YES
Poland	8%	YES	YES	YES
Slovakia	8%	YES	YES	YES
Slovenia	8%	YES	RESTRICTED	YES

Source: EBRD, Transition Report 2004, compiled by the author

Appendix 20. Bank capital flows to the CEE countries from EU-15 (in 2001, 100 mil USD)

Country	Czech R.	Estonia	Hungary	Latvia	Lithu-ania	Poland	Slova-kia	Slove-nia	Total
Austria	28.4	0.5	20.9	0.1	0.4	35.6	9.8	8.7	104.4
Belgium	155.5	0.2	57.5	0	0.1	76.7	17.8	4.3	312.1
Finland	0	7.8	0.1	8.8	3.4	3	0	0	23
France	59	0	12.4	0.1	31	23.8	6.1	14.3	146.7
Germany	108.1	5.2	160.3	6.4	10.8	222.2	21.8	26.7	561.3
Italy	3.5	0.7	34.1	0.1	0.2	145.6	58	3.3	245.5
Nether-lands	23.8	0.2	15	0.1	0.3	78	9	1	127.2
Portugal	0.1	0	0.1	0	0	0.4	0	0	0.7
Spain	1.6	0	1.6	0	0	2.6	0	0.1	6
Sweden	0.4	46.2	0.2	17.6	24.1	14.7	0.8	0	104.1
United Kingdom	0	0.02	7.66	0.05	0.1	6.16	0.37	0.05	14.4
Sum	380.2	60.8	310	33.2	70.3	608.7	123.6	58.5	1645.3

Source: ECB 2004, p. 40.

Appendix 21. Comparison of the mean values for ROA

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.Interval]	
Domestic	743	0.0053898	0.001763	0.0480562	0.0019287	0.0088509
Foreign	731	0.0101239	0.0015545	0.0420286	0.0070721	0.0131757
combined	1474	0.0077376	0.0011777	0.0452143	0.0054275	0.0100477
diff		–0.004734	0.002353		–0.0093498	–0.000118
Degrees of freedom: 1472 Ho: mean(0) - mean(1) = diff = 0 Ha: diff < 0 Ha: diff != 0 Ha: diff > 0 t = –2.0120 t = –2.0120 t = –2.0120 P < t = 0.0222 P > t = 0.0444 P > t = 0.9778						

Source: author's calculations

Appendix 22. Comparison of the mean values for ROE

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
Domestic	740	0.0489368	0.016708	0.4545074	0.0161359	0.0817376
Foreign	730	0.1319196	0.0243682	0.6583935	0.0840793	0.1797599
combined	1470	0.0901459	0.0147718	0.5663585	0.0611699	0.1191219
diff		−0.082982	0.0294748		−0.140800	−0.025165
Degrees of freedom: 1468 Ho: mean(0) – mean(1) = diff = 0 Ha: diff < 0 Ha: diff != 0 Ha: diff > 0 t = −2.8154 t = −2.8154 t = −2.8154 P < t = 0.0025 P > t = 0.0049 P > t = 0.9975						

Source: author's calculations

Appendix 23. Comparison of the mean values for NIM

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
Domestic	738	0.0488752	0.0018351	0.0498524	0.0452726	0.0524778
Foreign	731	0.0461074	0.0011165	0.0301873	0.0439154	0.0482994
combined	1469	0.0474979	0.0010766	0.0412647	0.045386	0.0496098
diff		0.0027678	0.0021528		−0.001455	0.0069907
Degrees of freedom: 1467 Ho: mean(0) – mean(1) = diff = 0 Ha: diff < 0 Ha: diff != 0 Ha: diff > 0 t = 1.2857 t = 1.2857 t = 1.2857 P < t = 0.9006 P > t = 0.1988 P > t = 0.0994						

Source: author's calculations

Appendix 24. Comparison of the mean values for OHTA

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.Interval]	
Domestic	903	0.0584795	0.0027298	0.0820306	0.053122	0.0638371
Foreign	865	0.0517822	0.0026089	0.0767302	0.0466616	0.0569027
combined	1768	0.0552028	0.0018914	0.0795297	0.0514932	0.0589125
diff		0.0066974	0.0037814		−0.000719	0.0141139
Degrees of freedom: 1766 Ho: mean(0) – mean(1) = diff = 0 Ha: diff < 0 Ha: diff != 0 Ha: diff > 0 t = 1.7711 t = 1.7711 t = 1.7711 P < t = 0.9616 P > t = 0.0767 P > t = 0.0384						

Source: author's calculations

Appendix 25. Comparison of the mean values for LIQTA

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.Interval]	
Domestic	915	0.4051699	0.006733	0.2036662	0.3919559	0.4183838
Foreign	873	0.4293308	0.0063411	0.187359	0.4168851	0.4417765
combined	1788	0.4169666	0.0046398	0.1961915	0.4078666	0.4260665
diff		−0.024161	0.0092671		−0.042336	−0.005985
Degrees of freedom: 1786 Ho:　mean(0) – mean(1) = diff　=　0 Ha: diff < 0　　Ha: diff != 0　　　Ha:　diff > 0 t = –2.6072　　t = –2.6072　　　t　= –2.6072 P < t =　0.0046　　P > t =　0.0092　　　P　> t =　0.9954						

Source: author's calculations

Appendix 26. Comparison of the mean values for NFB

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.Interval]	
Non-crisis	1815	1.016529	0.0678958	2.892554	0.8833667	1.149691
Crisis	1355	2.408118	0.081797	3.010973	2.247656	2.568581
combined	3170	1.611356	0.0536874	3.022749	1.506091	1.716622
diff		−1.391589	0.1056872		−1.598811	−1.184367
Degrees of freedom: 3168 Ho:　mean(0) – mean(1) = diff　=　0 Ha: diff < 0　　Ha: diff != 0　　　Ha:　diff > 0 t = –13.1671　　t = –13.1671　　　t　= –13.1671 P < t =　0.0000　　P > t =　0.0000　　　P　> t =　1.0000						

Source: author's calculations

Appendix 27. Average credit portfolio growth of banks in the CEE countries* (%)

		1995	1996	1997	1998	1999	2000	2001	2002	2003	Std. Dev.
Bulgaria	H	2	−78	142	79	17	0	40	29	38	60
	F	−25	−95	11	5	12	13	27	67	48	46
Croatia	H	27	49	76	7	−9	−7	17	49	16	28
	F	n.a.	n.a.	33	19	1	19	31	47	30	15
Czech Republic	H	18	14	2	5	−19	5	12	8	31	13
	F	6	−3	2	−8	−11	31	11	10	9	12
Estonia	H	147	114	140	n.a.	−11	13	28	28	11	64
	F	n.a.	n.a.	85	83	4	26	37	35	31	30
Hungary	H	35	1	46	44	26	10	17	19	45	16
	F	−14	4	14	23	30	37	10	27	26	16
Latvia	H	−15	78	77	75	33	22	47	59	26	31
	F	−33	−50	78	45	44	22	33	35	31	40
Lithuania	H	−16	−48	17	63	27	15	51	21	54	35
	F	n.a.	n.a.	53	54	47	9	18	34	72	22
Poland	H	88	47	22	29	27	12	16	13	14	25
	F	58	50	24	42	16	3	9	1	8	21
Slovakia	H	43	81	11	30	0	−23	55	1	23	32
	F	n.a.	n.a.	−8	−3	1	−3	−32	15	17	16
Slovenia	H	56	7	14	46	19	10	25	14	12	17
	F	n.a.	n.a.	5	22	6	6	3	12	16	7
Average credit growth	H	29	49	53	38	14	8	26	20	22	15
	F	1	−9	25	32	16	17	16	29	31	14

Note: *– Individual banking data are weighted with banks' market shares. H – Domestic banks, F – Foreign banks; n.a. – no banks in the sample.
Source: author's calculations.

Appendix 28. List of banks in the sample

BULGARIA
Balkan Universal Bank
BNP Paribas (Bulgaria) A.D.
Bulbank AD
Bulgarian Commercial and Industrial
Bank Ltd.
Bulgarian Post Bank JSC
Bulgarian-American Credit Bank
Commercial Bank Allianz Bulgaria AD
Corporate Commercial Bank AD
Credit Bank plc
Demirbank (Bulgaria) AD
DSK Bank Plc
Emporiki Bank – Bulgaria EAD
Eurobank Plc
First East International Bank
First Investment Bank
Hebrosbank
HVB Bank Biochim ad
ING Bank NV (Branch)
Investbank Bulgaria
Municipal Bank Plc
Nasarchitelna Banka-Encouragement
Bank AD
ProCredit Bank (Bulgaria) AD
Raiffeisenbank (Bulgaria) AD
Roseximbank ad
SG ExpressBank AD
Teximbank
UnionBank Commercial Bank Inc
United Bulgarian Bank - UBB

CZECH REPUBLIC
Bank Austria (CR) a.s.
Bank Austria Creditanstalt Czech
Republic
BAWAG Bank CZ a.s
Bawag International Bank CZ as
BH Capital as
Calyon Bank Czech Republic as
Ceska Exportni Banka-Czech Export
Bank
Ceska Sporitelna a.s.

Ceskomoravská Hypotecní Banka a.s.
Ceskoslovenska Obchodni Banka - CSOB
Cetelem CR, as
Citibank a.s.
CMSS as-Ceskomoravska Stavebni
Sporitelna as
Czech Moravian Guarantee and
Develpoment Bank-Ceskomoravska
Zarucni a Rozvojova Banka a.s.
eBanka as
Erste Bank Sparkasse (CR)
Foresbank, a.s.
GE Capital Bank
HVB Bank Czech Republic AS
Hypo stavebni sporitelna as
Hypo-Bank CZ a.s.
Investicni a Postovni Banka AS – IPB
J&T Banka as
Komercni Banka
Moravia Banka A.S
PPF banka a.s.
Pragobanka as
Raiffeisen stavební sporitelna AS
Societe Generale Banka
Stavební Sporitelna Ceské Sporitelny as
Zivnostenska banka, a.s.
Union banka a.s.
Universal Banka, a.s.
Vseobecna stavebni sporitelna Komercni
banky as

ESTONIA
AS Sampo Pank
Bank of Tallinn-Tallinna Pank
Eesti Krediidipank-Estonian Credit Bank
Eesti Maapank
Era Pank A/S
Estonian Forexbank-Eesti Forekspank
Estonian Savings Bank-Eesti Hoiupank
EVEA Pank
HansaPank-HansaBank
SBM Bank
Tallinna Äripanga AS-Tallinn Business

Bank Ltd
Union Bank of Estonia-Eesti Uhispank

CROATIA
Agro Obrtnicka Banka d.d. Zagreb
Alpe Jadran Banka dd Split
Banka Brod dd Slavonski Brod
Banka Kovanica dd Varazdin
Banka Sonic dd Zagreb
Brodsko Posavska Banka
Cakovecka Banka dd
Cassa de Risparmio di Trieste (Zagreb)
Centar Banka dd
Cibalae Banka dd
Convest Banka dd
Credobanka d.d. Split
Dresdner Bank Croatia d.d.
Dubrovacka Banka dd
Erste & Steiermärkische Bank dd
Erste & Steiermärkische Bank dd (Old)
Glumina Banka d.d.
Gospodarsko Kreditna Banka d.d., Zagreb
Gradska Banka
Hrvatska Gospodarska Banka dd
Hrvatska Postanska Bank DD
HVB Bank Croatia dd
HVB Splitska Banka dd, Split
Hypo Alpe-Adria-Bank dd
Imex Banka dd
Istarska Banka d.d.
Istarska Kreditna Bank Umag d.d.
Jadranska Banka dd
Kaptol Banka dd
Karlovacka Banka d.d.
Kreditna Banka Zagreb
Krizevacka Banka dd Krizevci
Kvarner Banka dd
Medimurska banka dd
Nava Banka dd
Nova Banka dd
Partner Banka dd
Podravska Banka
Pozeska Bank d.d.
Primorska Banka dd
Primus Banka dd

Privredna Banka- Laguna Banka dd
Privredna Banka Zagreb Group-Privredna Banka Zagreb d.d
Promdei Banka d.d.
Raiffeisenbank Austria d.d., Zagreb
Riadria Banka d.d.
Samoborska Banka dd
Sisacka banka dd
Slatinska Banka dd
Slavonska Banka dd, Osijek
Splitsko-Dalmatinska Banka dd Split
StedBanka d.d.
Zagrebacka Banka dd
Zagrebacka Banka Pomorska Banka Split
Zupanjska Banka dd
Trgovacka Banka d.d.
Varazdinska Bank d.d.
Volksbank dd

HUNGARY
ABN AMRO (Magyar) Bank Rt.
ABN AMRO Bank (Magyarorszag) Rt.
Altalanos Ertekforgalmi Bank Rt-General Banking and Trust Co Ltd
Bank Austria Creditanstalt (Hungary)
BNP Paribas Hungaria Bank Rt.
Budapest Bank RT
Calyon Bank Magyarorszag Rt.
Central-European Credit Bank Ltd (KHB)-CIB Hungaria Bank Rt
CIB Bank-Central-European International Bank Ltd.
Citibank RT
Commerzbank (Budapest) Rt
Credigen Bank Rt
Deutsche Bank RT
Erste Bank Hungary Rt
European Commercial Bank Ltd-Europai Kereskedelmi Bank RT EKB
GMAC Bank Hungary Rt
Hanwha Bank Magyarorszag Rt-Hanwha Bank Hungary Ltd
HVB Bank Hungary Rt.
Inter-Europa Bank Ltd
K&H Bank-Kereskedelmi es Hitelbank RT

KDB Bank (Hungary) Ltd
Konzumbank
Magyar Cetelem Bank
Magyar Külkereskedelmi Bank RT -
MKB-Hungarian Foreign Trade Bank Ltd
Magyar Takarekszövetkezeti Bank Rt -
TAKAREKBANK-Bank of Hungarian
Savings Cooperatives Limited
Orszagos Takarekpenztar es
Kereskedelmi - OTP Bank-National
Savings and Commercial Bank Ltd
Porsche Bank Hungaria
Postabank es Takarekpenztar RT-
Postbank and Savings Bank Corp. -
Postbank und Sparkasse
Rabobank Hungaria RT
Raiffeisen Bank Rt
Société Générale Hungaria Bank Rt
WestLB (Hungaria) Bank Rt

LITHUANIA
AB Bankas Hansabankas
AB Bankas Hansabankas (Old)
AB Bankas Hermis-Hermis Bank
AB Bankas NORD/LB Lietuva
AB Litimpeks Bankas
AB Parex Bankas
AB Ukio Bankas
Bankas Snoras
Lietuvos Valstybinis Komercinis Bank,
AB-State Commercial Bank of Lithuania
Siauliu Bankas
UAB Medicinos Bankas
UAB Sampo Bankas
Vilniaus Bankas

LATVIA
Aizkraukles Banka A/S
Akciju Komercbanka Baltikums
Baltic Trust Bank
Baltijas Starptautiska Banka-Baltic
International Bank
Banka Land
Capital Bank of Latvia
Doma Banka
Hansabanka

Komercbanka Viktorija
Latvian Economic Commercial Bank-
LATEKO Banka
Latvian Savings Bank-Latvijas KrajBanka
Latvijas Biznesa banka-Latvian Business
Bank JSC
Latvijas Hipoteku un zemes banka-
Mortgage and Land Bank
Latvijas Tirdzniecibas Banka-Latvian
Trade Bank
Latvijas Unibanka-Unibank of Latvia
Maras Banka
Merita Bank Plc (Riga Branch)
Multibanka
NORD/LB Latvija
Ogres Komercbanka A/S
Parekss Banka-Parex Bank
Paritate Bank
Rietumu Banka-Rietumu Bank Group
Riga Neftehimbank-Riga Oil & Chemical
Bank
Saules Banka
Zemes Banka
Trust Commercial Bank-JSC Trasta
Komercbanka
VEF Banka
Vereinsbank Riga A/S

POLAND
ABN Amro Bank (Polska) SA
AIG Bank Polska SA
Bank Austria Creditanstalt Poland SA
Bank BPH SA
Bank Czestochowa s.a. w Czestochowie
Bank Depozytowo-Kredytowy S.A.
Grupa Pekao S.A. - BDK
Bank Energetyki s.a.
Bank Gdanski SA
Bank Handlowy w Warszawie S.A.
Bank Millennium
Bank Ochrony Srodowiska Capital
Group-Bank Ochrony Srodowiska SA -
BOS SA
Bank of Tokyo-Mitsubishi (Polska) S.A.
Bank Pekao SA-Bank Polska Kasa Opieki
SA

Bank Pocztowy SA
Bank Polskiej Spoldzielczosci SA
Bank Przemyslowy SA
Bank Staropolski S.A. w Poznaniu
Bank Zachodni WBK S.A.
Bankgesellschaft Berlin (Polska) SA
BNP Paribas Bank (Polska) SA
BRE Bank SA
Calyon Bank Polska SA.
CC-Bank SA
Citibank (Poland) SA
Citibank International Plc (Branch)
DaimlerChrysler Services Bank Polska
SA
Danske Bank Polska
Deutsche Bank PBC SA
Deutsche Bank Polska S.A.
Dominet Bank SA
DZ Bank Polska SA
East European Bank-Bank Wspolpracy
Europejskiej SA
Economic Union Bank-Bank Unii
Gospodarczej
Fiat Bank Polska
Fortis Bank Polska SA
GE Capital Bank SA
Getin Bank SA
Gospodarczy Bank Wielkopolski S.A.
HSBC Bank Polska SA
Hypo-Bank Polska SA
HypoVereinsbank Bank Hipoteczny SA
HypoVereinsbank Polska S.A.
ING Bank Slaski S.A. - Capital Group
Invest-Bank SA Powszechny Bank
Budowlany w Poznaniu
Kredyt Bank SA
LG Petro Bank S.A.
Lukas Bank SA
National Economy Bank-Bank
Gospodarstwa Krajowego
Nordea Bank Polska SA
Polski Bank Inwestycyjny Spolka
Akcyjna-Polish Investment Bank
Pomorski Bank Kredytowy SA
Powszechna Kasa Oszczednosci Bank
Polski SA - PKO BP SA

Powszechny Bank Gospodarczy S.A.
Pekao SA Group
Powszechny Bank Kredytowy SA w
Warszawie - Capital Group
Rabobank Polska SA
Raiffeisen Bank Polska SA
Rheinhyp-BRE Bank Hipoteczny SA
Softbank SA
WestLB Bank Polska SA
Wielkopolski Bank Kredytowy SA

SLOVAK REPUBLIC
Abanka Vipa dd
Bank Austria Creditanstalt d.d. Ljubljana
Banka Celje dd
Banka Creditanstalt dd
Banka Domzale d.d.
Banka Koper d.d.
Banka Societe Generale Ljubljana d.d.
Banka Zasavje d.d.
Banka Velenje d.d.
Banka Vipa d.d.
Dolenjska Banka d.d. Novo Mesto
Factor Banka d.d.
Gorenjska Banka d.d. Kranj
Hipotekarna Bank dd Brezice
Hmezad Banka dd Zalec
Hypo Alpe-Adria-Bank dd
Koroska Banka
M Banka dd
Nova Kreditna Banka Maribor d.d.
Nova Ljubljanska Banka d.d.
Pomurska Banka d.d.
Postna Banka Slovenije dd
Probanka d.d. Maribor
Raiffeisen Krekova Banka dd
SKB Banka DD
Slovenska Investicijska Banka

UBK Univerzalna Banka dd, Ljubljana
SLOVENIA
AG Banka AS
Bank Austria (SR) a.s.
Banka Slovakia, as
Calyon Bank Slovakia a.s.

Citibank (Slovakia) a.s.
Creditanstalt a.s. Bratislava
CSOB Stavebna Sporitelna
Devin Banka as
Dexia banka Slovensko a.s.
Dopravna Banka, a.s.
First Building Savings Bank-Prva
Stavebna Sporitelna as
HVB Bank Slovakia a.s.
HypoVereinsbank Slovakia as (SAS)
Istrobanka

Komercni Banka Bratislava a.s.
Ludova Banka Volksbank
OTP Banka Slovensko, as
Postova Banka, A.S.-Post Bank JSC
Priemyselna Banka a.s. Kosice
Slovak Savings Bank-Slovenska
sporitel'na as
Slovenska Kreditna Banka, a.s.
Tatra Banka a.s.
UniBanka as
Vseobecna Uverova Banka a.s.

Source: BankScope 2005, author's table

Appendix 29. Banking crises in the CEE countries

Country	Period	Scope of crisis
Bulgaria	1995–1997	In 1995 an estimated 75 percent of banking system loans were substandard. The banking system experienced a run in early 1996. The government then stopped providing bailouts, prompting the closure of 19 banks accounting for one-third of the sector's assets. The surviving banks were recapitalized by 1997.
Croatia	1996	Five banks, accounting for about half of banking system loans, were deemed insolvent and taken over by the Bank Rehabilitation Agency.
	1998–1999	Failure of 14 banks.
Czech Republic	1991–1997	Several banks have closed since 1993. In 1994–95, 38 percent of banking system loans were nonperforming.
Estonia	1992–1995	Insolvent banks accounted for 41 percent of financial system assets. Five banks' licenses were revoked, and two major banks were merged and nationalized. Two other large banks were merged and converted to loan recovery agencies. 1994 saw the failure of the Social Bank, which controlled 10 percent of the assets of the financial system.
	1998	Solvency problems of several banks due to losses in the Russian market.
Hungary	1991–1995	In the second half of 1993, eight banks accounting for 25 percent of the assets of the financial system were deemed insolvent.
Latvia	1995–2002	Between 1994 and 1999, 35 banks saw their license revoked, were closed, or ceased operations.
Lithuania	1995–1996	In 1995, of the total of 25 banks, 12 small banks were liquidated, 3 private banks (accounting for 29 percent of the deposits of the banking system) failed, and 3 state-owned banks were deemed insolvent.
Poland	1990s	In 1991, seven of the nine treasury-owned commercial banks accounting for 90 percent of credit, experienced solvency problems.as did the Bank for Food Economy and the cooperative banking sector.
Slovakia	1991– present	In 1997, unrecoverable loans were estimated at 101 billion crowns, or about 31 percent of loans and 15 percent of the GDP.
Slovenia	1992–1994	Three banks accounting for two-thirds of the assets of the banking system were restructured.

Source: Caprio and Klingebiel 2003, national Central Banks.

SUMMARY IN ESTONIAN – KOKKUVÕTE

VÄLISPANGAD KESK- JA IDA-EUROOPA TURGUDEL: NENDE SISENEMINE NING MÕJU PANGANDUSSEKTORILE

Töö aktuaalsus

Ettevõtete rahvusvahelistumise protsessi[17] on intensiivselt uuritud alates 1960datest. Rahvusvaheliste kapitalivoogude, otseste välisinvesteeringute ja rahvusvahelise kaubanduse kasv soodustas ka rahvusvahelise panganduse teket ja arengut. Siirderiikides on rahvusvahelised pangad tegutsenud peamiselt alates 1990date algusaastatest pärast turu liberaliseerimist ja pangandusturgude avamist väliskapitalile. Tänaseks on välispangad[18] hõlvanud juba keskmiselt enam kui 60% Kesk- ja Ida-Euroopa (KIE) riikide pangandusturgudest.

Üha kasvav välisomandus tõstatab huvitavaid uurimisprobleeme välispankade rolli kohta siirderiikides. Seni ei ole teadlased veel välja töötatud ühtselt aktsepteeritavat teooriat pankade rahvusvahelistumise ja selle mõju analüüsimiseks siirde riikide panganduses. Peamine põhjus ühtse teooria puudumiseks on selles, et välispankade turule sisenemine vähemarenenud turgudele on olnud aktuaalne alles seoses rahvusvahelise panganduse arengu „kolmanda lainega" 1990datel siirderiikides (Herrero, Simón 2003, lk. 3). Siirderiikide pangandusturgudel on toimunud lühikese ajaperioodi jooksul suured muutused ning pankade rahvusvahelistumise erinevad aspektid vajavad täiendavat uurimist.

Senised uuringud pankade rahvusvahelistumise ja selle mõjude kohta KIE riikide panganduses on olnud peamiselt kirjeldavat laadi. Esimene põhjalikum empiiriline uuring analüüsimaks välispankade turule sisenemise mõju kodumaiste pankade tegevusele viidi läbi Claessens *et al* (1998) poolt. Nimetatud uuringus analüüsiti välispankade tegevuse mõju kodumaiste pankade tegevusedukusele arenenud riikides ja arenguriikides.

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[17] Ettevõtete rahvusvahelistumine on defineeritud kui "järjest suureneva riigivälise tegevusega seotud protsess" (Welch, Luostarinen 1988, lk. 36)

[18] Välispangana defineeritakse panka, mille aktsiakapitalist enam kui 50% kuulub välisresidentidele antud riigis.

Teine olulisem uurimissuund on pankade rahvusvahelistumise mõju analüüs kohaliku pangandussektori stabiilsusele siirderiikide pangandusturgudel (vt Dages *et al* 2000; Tschoegl 2003; Buch *et al* 2003).

McKinnon (1973; 1993) rõhutas finantsliberaliseerimise tähtsust finants-sektori arengu selgitamisel. Täiendavat analüüsi vajab ka seos finantsliberali-seerimise ja välispankade turule sisenemise ajastamise vahel. Enamikes KIE riikides on välispangad saavutanud domineeriva positsiooni just pangakriiside järgselt, millest tekib huvitav uurimisprobleem, miks välispangad on just kriiside ajal KIE pangandusturgudele sisenenud. Pangakriisid on omakorda tihedalt seotud finantsliberaliseerimisega siirderiikides. Mitmetes uuringutes on jõutud järeldusele, et finantsliberaliseerimine on küll vajalik pangandussektori arenguks, kuid põhjustab samas ka pangakriise (Demirgüç-Kunt, Detragiache 1998; Mullineux, Murinde 2003).

Seni on üsna vähe tehtud töid (Demirgüç-Kunt *et al*, 1998), milles oleks samaaegselt analüüsitud välispankade turule sisenemise mõju nii kohalike pankade tegevusedukusele kui ka pangandusturu stabiilsusele. Vastavaid uuringuid KIE riikide kohta on veelgi vähem läbi viidud, kuid uurimisvaldkond on väga aktuaalne ja teaduskirjandus on selles suunas kiiresti arenev.

Välispankade mõju huvitav aspekt, mida varasemas teaduskirjanduses pole piisavalt empiiriliselt analüüsitud, on võimalik deposiitide suundumine kodu-maistest pankadest välispankadesse (*flight to quality of deposits*) pangakriiside ajal. Tschoegl (2003) on pakkunud, et võimalus deposiitide vooluks kodu-maistest pankades välispankadesse kriisi ajal on pangandusturgu stabiliseeriv aspekt, kuna välispankade kohaloleku korral on usaldus pangandussüsteemi vastu suurem ja hoiuseid võetakse vähem välja pankadest. Käesolevas töös analüüsitakse pangandusturu stabiilsust ja hoiuste voolu välispankadesse ka empiiriliselt.

Dissertatsioonis ühendatakse pankade rahvusvahelistumise erinevate aspektide uurimiseks küsitlusel põhinev kvalitatiivne uuring ja statistiline analüüs teoreetilise käsitlusega, et luua põhjalik raamistik välispankade turule sisenemise motiivide ja rahvusvahelistumise mõjude mõistmiseks KIE riikides.


Töö eesmärk ja ülesanded

Käesoleva doktoritöö eesmärk on välja selgitada välispankade turule sisenemise motiivid ning mõju pankade tegevusedukusele ja stabiilsusele Kesk- ja Ida-Euroopa riikides. Töö eesmärgi saavutamiseks on püstitatud järgmised uurimis-ülesanded:

1) Võrrelda peamisi pankade rahvusvahelistumise teooriad, tuua välja kriitika ja analüüsida teooriate rakendatavust siirderiikides.
2) Eelnevale punktile tuginedes töötada välja teoreetiline raamistik pankade rahvusvahelistumise ja selle mõjude selgitamiseks KIE riikides.

3) Püstitada uurimishüpoteesid välispankade turule sisenemise motiivide ja mõju kohta kohalike pankade tegevusedukusele ja stabiilsusele
4) Kontrollida uurimisteeside empiirilist paikapidavust kvalitatiivse ja kvantitatiivse analüüsi käigus KIE riikide andmete põhjal.
5) Sünteesida uurimistulemusi ning teha järeldused välispankade sisenemis-motiivide ja pangandussektorile avaldatava mõju kohta KIE riikides.

Doktoritöö teoreetiline tagapõhi

Doktoritöö koosneb kahest peamisest osast. Töö ülesehituse üldist loogikat kirjeldab joonis 1. Ülevaade põhilistest pankade rahvusvahelistumise ja selle protsessi mõjusid kirjeldavatest teoreetilistest käsitlustest antakse töö esimeses peatükis. Alapeatükis 1.1. käsitletakse pankade rahvusvahelistumise erinevaid määratlusi ning tuuakse välja peamiste rahvusvahelistumist selgitavate teooriate põhiseisukohad ja kriitika. Alapeatükis 1.2. antakse ülevaade peamistest teooriatest ja empiiriliste uuringute põhitulemustest välispankade turule sisenemise mõju kohta siirderiikide pangandussektorile. Seejärel moodustatakse alapeatükis 1.3. erinevate teoreetiliste seisukohtade integreerimisega teoreetiline raamistik pankade rahvusvahelistumise kirjeldamiseks KIE siirderiikides ja püstitatakse uurimishüpoteesid.
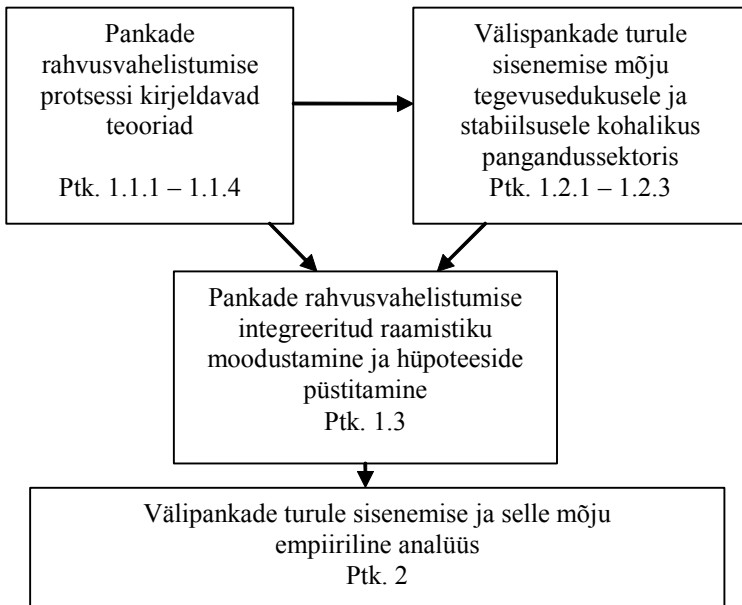
Joonis 1. Doktoritöö struktuuri üldine loogika.

Töö teises peatükis kontrollitakse teoreetiliste uurimisteeside paikapidavust KIE riikide andmete põhjal. Tehakse järeldused välispankade turule sisenemise motiivide ning pangandussektori stabiilsusele ja pankade tegevusedukusele avalduva mõju kohta.

Alapeatükis 1.1.1. selgitati pankade rahvusvahelistumise olemust, selle erinevaid definitsioone ja pangandusturu rahvusvahelistumise taseme hindamise võimalusi. Käesolevas töös on pankade rahvusvahelistumine defineeritud kui panga tegevuse laienemine ühe või mitme välisriigi turgudele otsese välisinvesteeringu vormis. Peamiselt on uuritud nn. sissepoole suunatud rahvusvahelistumist ehk siis välispankade sisenemist kohalikule pangandusturule KIE riikides.

Alapeatükis 1.1.2. toodi välja peamised teoreetilised lähenemised pankade rahvusvahelistumise kirjeldamiseks. Pankade rahvusvahelistumise põhjuste selgitamisel kasutatavad teooriad kattuvad osaliselt ettevõtete rahvusvahelistumise üldiste teooriatega. Võib öelda, et enamalt jaolt ongi erinevad autorid rakendanud olemasolevaid ettevõtete rahvusvahelistumise teooriad pangandussektori rahvusvahelistumise kirjeldamiseks mõningate muudatuste ja täiendustega.

Käesolevas doktoritöös integreeriti pankade rahvusvahelistumise protsessi kirjeldamiseks KIE riikides kaks teoreetilist lähenemist. Dunning'i ettevõtete rahvusvahelistumise eklektilist teooriat (OLI paradigma) kasutati välispankade omanduseeliste ja asukoha eeliste selgitamiseks siirderiikides. OLI paradigma rõhutab varaliste eeliste ja tehingutega seotud eeliste tähtsust konkreetse sihtriigi turule sisenemisel. OLI paradigmat eelistati välispankade turule sisenemise motiivide selgitamisel just välispankade omanduseeliste ja asukohaeeliste olemasolu tõttu KIE riikides. OLI teooria kohaselt võib eristada nelja ettevõtete rahvusvahelistumise strateegiat. Töös püstitati hüpotees, et välispankade domineerivaks rahvusvahelistumise motiiviks siirderiikides on uute turgude otsimine. OLI teooria ei selgita välispankade turule sisenemise ajastamist. Selleks, et võtta arvesse KIE riikides toimunud finantsliberaliseerimise ja sellele järgnenud pangakriiside mõju pankade rahvusvahelistumise selgimisel, ühendati OLI teooria finantsliberaliseerimise (FL) raamistikuga. Finantsliberaliseerimine loob täiendavad tõmbetegurid välispankadele ja tugevdab omanduseelist ja asukohaeelist. Töös püstitati hüpotees, et välispangad sisenevad KIE riikide pangandusturgudele intensiivsemalt pangakriiside ajal, mil nad saavad oma usaldusväärset reputatsiooni paremini ära kasutada ja ühtlasi on kriiside ajal odavam kodumaised pankasid üle võtta.

Välispankade turule sisenemise mõjude selgitamiseks ei ole seni veel välja pakutud ühtselt aktsepteeritavat teooriat. Senised uurimused on enamasti kas kirjeldavat teoreetilist laadi või täielikult empiirilised testides mitmesuguseid hüpoteese välisosaluse muutuse ja kohalike pankade rentaabluse vahel.

Välispankade turule sisenemise mõju selgitamisel kasutati otseste välisinvesteeringute teooriat. Selle teooria kohaselt sõltub välispankade turule sisenemise mõju kohalike pankade tegevusedukusele kohaliku pangandusturu

arengutasemest. Suure tehnoloogilise mahajäämuse korral väheneb kodumaiste pankade turuosa välispankade kasuks ja kodumaiste pankade tegevusedukus väheneb. Samas kaasneb otseste välisinvesteeringutega ka tehnoloogia ülekanne ja ka kohalikud pangad võivad välispankadelt ülevooluefektina saada täiendavat oskusteavet. Tehnoloogia mahajäämuse hüpoteesi kohaselt peaks välispankade konkurentsiefekt olema eriti tugev madalama arengutasemega pangandus- turgudel ja vähemoluline väiksema arengutasemete erinevuse korral. Nimetatud aspekti uurimiseks püstitati töös ka vastav hüpotees.

Välispankade rolli kohaliku pangandusturu stabiilsuse kujunemisel on samuti erinevate autorite poolt palju analüüsitud. Autorid on jõudnud järel- dusele, et välispankade kohalolek mõjub stabiliseerivalt siirderiikide pangan- dussektoritele. Välispankadel on parem oskusteave riskijuhtimise valdkonnas, nad on usaldusväärsemad ja võimaldavad stabiilsemat krediiti erasektorile. Käesolevas töös uuriti kuidas välispankade turule sisenemine mõjutab kohalike pankade laenuportfelli kvaliteeti ja võrreldi ka kodumaiste ja välismaiste pankade laenupakkumise, likviidsuse ja kapitaliseerituse dünaamikat siirde- protsessi käigus.

Uurimuse andmed ja kasutatav metoodika

Töö empiiriline osa algab pangandusturgude rahvusvahelistumise üldiste ten- dentside võrdlevanalüüsiga kümne valitud KIE põhjal. Välispankade osakaal KIE pangandusturgudel on kiiresti kasvanud viimase 10 aasta jooksul ja ena- mikes vaatluse all olnud KIE riikides on välispankadel ülekaal nii arvuline kui ka aktivate mahu järgi pangandusturul. Erandina võib esile tuua Sloveenia, kus välispankade osakaal nii arvulises kui varade mahu järgi arvestuses jääb alla 30%.

Peamise osa töö empiirilisest osast moodustavad kolm uuringut, mis põhinevad kahte sorti andmetel. Alapeatükis 2.2. viidi läbi välispankade turule sisenemise mõjude ja motiivide kvalitatiivne analüüs. Selleks viidi läbi küsitlus pangajuhtide seas neljas KIE riigis. Küsitlus viidi läbi ajaperioodil 2001–2002 , vaatlusalusteks riikideks olid Eesti, Läti, Leedu ja Rumeenia. Mõningal määral saadi võrreldavaid andmeid analoogilisest uurimusest ka Horvaatia pankade kohta. Küsitluse eesmärgiks oli selgitada välja välispankade turule sisenemise motiivid, strateegiad ja tulevikuperspektiivid KIE riikides. Samuti püüti välja selgitada kodumaiste ja välismaiste pankade arvamust välispankade mõju kohta sihtriigi pangandusturule. Uuringus analüüsiti mitmeid erinevaid aspekte pankade rahvusvahelistumise kohta KIE riikides, kuid enam huvipakkuvateks olid küsimused välispankade turule sisenemise motiivide, välispankade peamiste sihtrühmade, kodumaiste ja välismaiste pankade konkurentsieeliste, pankade rahvusvahelistumisega kaasneva tehnoloogia ülekande ja konkurentsile

avalduva mõju kohta. Küsimused on moodustatud viie-palli skaalal, kus 1 tähendab ebaolulist ja 5 väga olulist aspekti.

Küsitluse vastavusmäär osutus igati rahuldavaks, võimaldades läbi viia vastuste kvalitatiivse analüüsi. Doktoritöö autor oli küsitlusvormi väljatööta-miseks ja küsitluse läbi viimiseks loodud uurimisgrupi liige ja küsitles pangajuhte Eestis, kuid kahjuks puudub autoril ligipääs teistes riikides läbi viidud uuringu ankeetidele. Seetõttu pole autoril võimalik läbi viia andmete sügavamat statistilist analüüsi ja teostada saab vaid keskmiste võrdlevat analüüsi. See on nimetatud kvalitatiivse uuringu peamine puudujääk. Samas võimaldab loodud unikaalne andmestik teha huvitavaid järeldusi välispankade turule sisenemise motiivide ja mõjude kohta erinevates KIE riikides. Küsitluse eelis võrreldes kvantitatiivse analüüsiga seisneb asjaolus, et rahvusvahelistu-mise protsess on tihedalt seotud pankade strateegiatega ja pangajuhtide tulevikunägemusega turgude arengust KIE riikides, mida saab paremini välja selgitada eelkõige küsitluse vormis.

Analüüsimaks välispankade turule sisenemise mõju kohalike pankade tegevusedukusele ja stabiilsusele viidi läbi kvantitatiivne analüüs. Selleks koostati unikaalne andmebaas, mis sisaldab kokku 319 kommertspanga bilansi ja kasumiaruande aastaseid andmeid perioodil 1993 – 2003 kümnes KIE riigis. Üksikpankade andmed on saadud andmebaasist Bureau van Dijk BankScope 2005, millele ligipääsu võimaldas Eesti Pank. Nimetatud andmetest moodustati paneel, milles üksikpankade näitajatele lisati riigispetsiifilised makromajandus-likud näitajad (nt inflatsioon, sisemajanduse koguprodukti reaalkasv ja sisse-tulekud elaniku kohta). Riigispetsiifilised andmed on võetud erinevate rahvus-vaheliste organisatsioonide andmebaasidest ja väljaannetest nagu Transition Report, mille väljaandjaks Euroopa Rekonstruktsiooni ja Arengupank (EBRD), International Financial Statistics, mille autoriks on Maailmapank. Välispankade osaluse iseloomustamiseks kasutati kahte näitajat: välispankade arvuline osakaal ja välispankade turuosa varade mahu järgi antud riigis antud aastal.

Tegemist on tasakaalustamata paneelandmetega, kuna erinevatel aastatel on andmebaasis erinev arv pankasid ühinemiste, pankrottide jms. tõttu. Kohalike pankade tegevusedukuse seost välispankade osakaalu muutumisega KIE riikides analüüsiti ajaperioodil 1995–2001. Valitud andmeperioodil on pankade kajastatus andmebaasis kõige ühtlasem. Välispankade turule sisenemise mõju analüüsiti nii kodumaiste kui ka juba kohal olevate välispankade jaoks (mõju "kohalikele" pankadele). Regressioonvõrrandite koostamisel on lähtuti Claessens *et al* (2001) väljapakutud mudelist, mis on leidnud laialdast kasuta-mist mitmete autorite poolt. Nimetatud mudelit arendati edasi tuues sisse interaktiivsed muutujad selgitamaks välja pangandussektori arengutaseme ja panga turuosa mõju välispankade sisenemisel kaasnevatele efektidele. Sõltuv-muutujatena kasutati panga raamatupidamisliku tegevusedukuse näitajaid: puhasintressi tulu, mitteintressitulu, maksueelne kasum, üldkulud, laenukahju-mite provisjonid (kõik muutujad on väljendatud suhtena koguaktivatesse).

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Peamiseks sõltumatuks muutujateks oli välispankade osakaal turul, kontroll-muutujatena kasutati veel mitmeid pangaspetsiifilisi ja riigispetsiifilisi näitajaid.

Peamiseks regressiooniparameetrite hindamismeetodiks oli Arellano-Bond (A-B) dünaamilise paneelandmete hindamistehnika. Nimetatud meetod võimaldab kasutada ka viitaegasid ja instrumentmuutujaid. A-B hindamismeetod võimaldab vähendada sõltumatute muutujate endogeensust. Regressiooni-võrrandites on eeldatud, et välispankade turule sisenemine on eksogeenne ja ei sõltu antud ajahetke turusituatsioonist. Tegelikkuses ei pruugi see eeldus paika pidada ja A-B meetod võimaldab seda arvesse võtta. Kõik muutujad võrrandites on esimest järku diferentside kujul.

Alapeatükis 2.4. analüüsiti välispankade mõju sihtriigi pangandusturu stabiilsusele. Selleks teostati statistiline võrdlev analüüs, mille käigus võrreldi kodumaiste ja välismaiste pankade tegevust pangakriisi perioodil ja stabiilsus-perioodil. Samuti hinnati täiendavalt välispankade turule sisenemise mõju pankade laenukahjumitele KIE riikides. Võrreldi ka kodumaiste ja välispankade laenupakkumise stabiilsust, nõudmiseni hoiuste kasvu stabiilsust ning likviid-suse ja kapitaliseerituse taset perioodil 1993–2003. Kodumaiste ja välispankade tegevuse stabiilsuse erinevuse statistilise olulisust kontrolliti t-testiga.

Uurimisväidete analüüsi tulemused ja üldistused

Teoreetilise analüüsi käigus püsitati kolme tüüpi uurimisväiteid. Esimesed neli hüpoteesi on seatud kontrollimaks autori poolt välja pakutud pankade rahvus-vahelistumist kirjeldava mudeli sobivuse analüüsimiseks KIE riikides. Hüpoteeside 5–8 kontrollimisega uuritakse välispankade turule sisenemise mõju kohalike pankade tegevusedukusele. Uurimisväited 8–11 on pankade stabiilsuse analüüsimiseks KIE riikides ja välispankade rolli analüüsimiseks stabiilsuse kujunemisel.

H1: Uute turgude leidmine on domineerivaks motiiviks välispankade sisenemisel KIE riikide pangandusturgudele.

Hüpoteesi 1 kontrolliti küsitlusel põhineva kvalitatiivse uuringuga. Uuringu tulemused toetavad hüpoteesi 1 paikapidavust. Kuigi pangad nimetasid oluliste sisenemismotiividena ka veel kliendile järgnemist ja ekspansiivset laienemis-strateegiat, oli uute turgude leidmine siiski domineerivaks motiiviks. Kõigis vaatlusalustes riikides (Eesti. Leedu, Poola, Rumeenia) olid välispangad just uute turgude leidmist pidanud kõige olulisemaks KIE riikide pangandus-turgudele sisenemise motiiviks, hinnangute keskväärtuseks oli 4.58 viie palli skaalal. Küsituse käigus uuriti ka kodumaiste pankade arvamust välispankade sisenemismotiivide kohta ja ka kodumaisete pankade arvates oli uute turgude leidmine peamiseks motiiviks välispankade sisenemisel keskmise hinnanguga 4.68

H2: Välispankadel on omanduseelised kodumaiste pankade ees.

See hüpotees leidis kinnistust. Küsitluse analüüsitulemuste kohaselt on välispankadel mitmeid omanduseeliseid kohalike pankade ees. Küsimuse püstituse kohaselt tähendab 5 olulist eelist välispangale ja 1 olulist eelist kodumaisele pangale. Kõige olulisemaks eeliseks pidasid välispangad oma head reputatsiooni, vastav keskmine hinnang oli 4.03. Välispangad nimetasid olulise eelisena veel pangateenuste paremat sortimenti ja kättesaadavust, keskmise hinnanguga 3.9. Välispankade olulise eelisena nimetati veel ka odavamat laenuressurssi (keskmine skoor 3.9). Kodumaiste pankade arvates on välispankade peamiseks eeliseks madalamad laenuintressid (keskmine skoor 3.85). Antud tulemus näitab, et välispangad pakuvad tugevat konkurentsi krediiditurul. Välispangad märkisid oma peamise puudusena kohaliku seadusandluse vähest tundmist ja halba sisemist kommunikatsiooni. Antud tulemus näitab, et välispankadel on raske kohaneda kohalike oludega KIE riikides. Kodumaised pangad nimetasid oma peamiseks eeliseks kohalike klientide paremat tundmist, keskmise hinnanguga 2.1.

H3: Välispankade sisenemisega KIE pangandussektorisse kaasneb oluline teadmiste ülekanne välispankadesse ja teadmiste ülevooluefekt kodumaistesse pankadesse.

Hüpotees 3 leidis selget kinnitust. Välispangad nii Eestis kui Rumeenias nimetasid teadmiste ülekannet emapangast tütarpanka riskijuhtimise valdkonnas kõige olulisemaks teadmiste ülekande valdkonnaks keskmisega hinnanguga 4.7 Eestis ja 4.35 Rumeenias. Eestis tegutsevad välispangad pidasid eelkõige oluliseks teadmiste ülekannet intressiriski ja maksevõimelisuse riski valdkonnas. Krediidipoliitika Eestis ja kulude juhtimise teave Rumeenias märgiti samuti tähtsate teadmiste ülekandena välispankade poolt. Kodumaistelt pankadelt küsiti võimaliku välispankade turule sisenemisega kaasnevate teadmiste ülevooluefektide (*spill-over effect*) olemasolu kohta (demonstratsiooniefektid). Positiivse ülevooluefektina nimetasid Rumeenia kodumaised pangad uusi teadmisi informatsioonisüsteemi arendamisel ja Eesti kodumaised pangad likviidsusriski juhtimisel.

H4: Välispankade sisenemine on intensiivsem kriisiperioodidel.

See hüpotees leidis kinnitust. Keskmine uute välispankade sisenemise arv KIE riikidesse oli ajavahemikus 1993–2003 kriisiperioodidel 2.4 panka aastas, samas kui stabiilsetel aastatel sisenes keskmiselt üks uus välispank igasse KIE riiki ja erinevus osutus statistiliselt oluliseks. Tulemus on hästi seletatav alapeatükis 1.3. püstitatud laiendatud OLI mudeliga. Välispankade omanduseelised (näiteks reputatsioon) ja asukohaeelised (näiteks madal varade hind) on suurimad just pangakriiside ajal.

H5: Kohalike pankade netointressimarginaalid, mitteintressitulud ning kasumlikkus vähenevad seoses välispankade osakaalu kasvuga.

Hüpotees viis leidis osalist kinnitust analüüsi käigus. Netointressimarginaali (NIM) ja välispankade osakaalu vahel oli küll negatiivne kuid statistiliselt mitteoluline seos. Autor leidis statistiliselt olulise negatiivse seose välispankade osakaalu muutumise ja pankade tulutoovate aktivate intressitootluse (ALINT) muutumise vahel. Antud tulemus näitab, et välispangad suurendavad konku- rentsi eelkõige laenuturul ja keskmised laenuintressid langevad. Samas pole välispankade turule sisenemine otseselt seotud kohalike pankade intressi- kuludega ja seetõttu pole välispankade sisenemise seos NIM-ga statistiliselt oluline.

Välispankade arvulise osakaalu muutus ega ka välispankade turuosa muutus üksi ei osutunud statistiliselt oluliselt seotuks kohalike pankade mitteintressi- tuludega. Tuues sisse interaktiivse muutuja välisosaluse ja pangandusturu arengu indikaatori vahel, ilmnes, et välispankade osakaalu suurenemisega kaas- nes kohalike pankade mitteintressikulude vähenemine, kuid mõju oli nõrgem kõrgema pangandusturu arengutaseme korral. Samuti reageerisid välisosaluse muutusele vähem suurema turuosaga pangad. Antud tulemus näitab, et välis- pankade turule sisenemise mõju kohalikele pankadele sõltub nii pangaspetsiifi- listest näitajatest kui ka pangandusturu arengutasemest.

Välisosaluse muutus üksi ei olnud statistiliselt oluliselt seotud pankade kasumlikkusega. Kui regressioonvõrrandisse lisati interaktiivne muutuja välis- osaluse muutuse ja pangandussektori arengu näitajaga, siis leiti, et välispankade turuosa suurenedes kohalike pankade kasumlikkus väheneb. Kõrgema pangandusturu arengu korral oli kasumlikkuse langus väiksem. Antud tulemus näitab, et enam arenenud pangandusturul on kasumlikkus langus juba eelnevalt konkurentsi tõttu toimunud ja täiendavate välispankade lisandumine ei mõjuta pankade kasumlikkust nii olulisel määral. Hüpoteesi paikapidavust kinnitasid ka küsitluse tulemused.

H6: Pankade üldkulud on samasuunaliselt seotud välispankade osakaalu muutumisega KIE riikides.

See hüpotees leidis osalist kinnitust. Välisosaluse muutus pangandusturul üksi ei olnud statistiliselt oluliselt seotud pankade üldkulude tasemega. Kui toodi sisse interaktiivne muutuja pangandussektori arengu indikaatoriga, ilmnes, et välisosaluse arvulise kasvu korral kasvas ka pankade üldkulude tase, kuid see kasv on väikesem kõrgema pangandusturu arengu korral. Antud tulemus näitab, et välispankade turule sisenemine võib kaasa tuua mitteintressikulude kasvu kodumaistes pankades. See tulemus on majanduslikult üsna hästi tõlgendatav. Suure osa pankade mitteintressikuludest moodustavad kulutused tööjõule. Välispangad suudavad pakkuda kõrgemat palgataset ja seetõttu on sunnitud ka kohalikud pangad töötasude määra tõstma, et ei toimuks kvalifitseeritud tööjõu voolamist välispankadesse. Kõrgema arengutasemega pangandusturul on

palgaerinevused väiksemad ja seetõttu on ka välispankade sisenemise mõju nõrgem.

H7: Välispankade turule sisenemise mõju kohalike pankade tegevus-edukusele sõltub nende turuosast ja pangandussektori arengutasemest.

See hüpotees leidis regressioonanalüüsi käigus kinnitust. Nagu juba eelnevate hüpoteeside analüüsimisest selgus, mõjutab pangandusturu arengutase välispankade turule sisenemise mõju ulatust. Kõrgema pangandusturu arengu korral on välisosaluse muutuse mõju pankade mitteintressikuludele, üldkuludele ning kasumlikkuse väikesem. See tulemus on kooskõlas nn tehnoloogia maha-jäämuse *(technology gap)* hüpoteesiga, mis väidab, et mida suurem on arengu-taseme vahe sihtriigi ja välispanga emamaa pangandussektori vahel, seda tuge-vamalt mõjutab välispankade sisenemine siirderiigi pangandussektorit. Kuna vaatlusalused KIE riigid on nüüdseks juba enamalt jaolt Euroopa Liidu liikmesriigid või vähemalt kandidaatriigi staatuses (Bulgaaria) ning pangandus-turgude integreeritus kasvab pidevalt, võib edaspidisteks uurimusteks püstitada hüpoteesi, et välispankade turule sisenemine ei mõjuta tulevikus enam märki-misväärselt kohalike pankade tegevusedukust. Ka kvalitatiivne analüüs näitas, et Poolas ja Rumeenias, kus pangandusturg on mõnevõrra vähem arenenud kui näiteks Eestis, hindasid kodumaised pangad välispankade turule sisenemise mõju kohalikule pangandusturule oluliselt tugevamaks kui Eestis.

Uurimistulemused näitavad, et suurema turuosaga pankade mitteintressitulud ja laenukahjumite provisjonid on vähem mõjutatud välispankade turule sisene-misest. Selline tulemus näitab, et suuremad pangad reageerivad vähem välis-pankade sisenemisele, mida võib selgitada suuremate pankade inertsusega.

H8: Pankade laenuportfelli kvaliteet tõuseb seoses välispankade osakaalu suurenemisega KIE riikides.

Laenuportfelli kvaliteedi näitajana kasutati laenukahjumite provisjonide suhet panga koguaktivatesse. Hüpotees leidis osalist kinnitust. Välispankade arvulise osakaalu kasv riigis oli negatiivses korrelatsioonis kohalike pankade laenu-kahjumite provisjonide osakaaluga koguvarades. Välispankade turuosa kasvu ja kohalike pankade laenuportfelli kvaliteedi vahel ei leitud statistiliselt olulist seost. Analüüs näitas, et suurema turuosaga pankade laenuportfelli kvaliteet muutus vähem seoses välisosaluse muutusega. Hüpoteesi kontrollimisel selgus, et pangaspetsiifilised raamatupidamislikud näitajad ei suutnud kirjeldada pan-kade laenukahjumite provisjone.

H9: Välispankade laenupakkumine on võrreldes kodumaiste pankadega stabiilsem.

See hüpotees leidis kinnitust. Kodumaiste pankade laenuportfelli kasvu volatiilsus oli kõrgem kui välispankadel perioodil 1993–2003. Välispankadel on parem ligipääs rahvusvahelistele kapitaliturgudele ja neil on võimalus kaasa ta

vahendeid ka emapanga abiga, mis võimaldab stabiilsemat pakkumise kasvu. Analüüs näitas, et kriisiperioodidel hoiuste kasv kiirenes välispankades, mis võimaldas ka pangakriiside ajal stabiilsemat laenupakkumist.

H10: Pangakriiside ajal toimub täiendav nõudmiseni deposiitide vool välispankadesse.

See uurimisväide püstitati kontrollimaks võimaliku "*flight to quality*" hüpoteesi kehtivust KIE riikides. Hüpotees leidis kinnitust. Analüüsi tulemused näitavad, et pangakriiside ajal nõudmiseni deposiitide kasv kodumaistes pankades aeglustub, samas kui välispankades nõudmiseni hoiuste kasv on kiirem kui mittekriisi perioodil. Välispankade usaldusväärsus on kriisiperioodil suurem võrreldes kodumaiste pankadega. Ka hüpoteesi 2 analüüsimisel selgus, et välispankade olulisimaks eeliseks kodumaiste pankade ees on kõrgem reputatsioon. Hüpoteesi 4 kontrollimisel selgus, et välispangad on sisenenud KIE riikides turgudele intensiivsemalt kriiside ajal, sellega on selgitatav ka reputatsiooni tähtsus. Ka nõudmiseni hoiuste kiirem vool välispankadesse näitab, et kriiside ajal on välispankadel omanduseelis suurema usaldusväärsuse näol.

## H11: Välispankade likviidsus ja kapitaliseeritus on ajas stabiilsem.

See hüpotees leidis kinnitust. Välispankade kapitaliadekvaatsus ja likviidsete varade osakaal koguaktivates muutus kriisi ajal vähe, samas kui kodumaiste pankade vastavad näitajad olid tugevasti mõjutatud kriisiperioodidest. Analüüs näitas, et kriisiperioodidel suurenes märkimisväärselt kodumaiste pankade likviidsete varade osakaal ja kapitali adekvaatsuse tase. Tulemus viitab kodumaiste pankade ettevaatlikumale käitumisele kriisi ajal, et vältida pankrotti. Kogu vaatlusaluse perioodi jooksul oli kodumaiste pankade likviidsuse tase kõrgem kui välispankades. Selline tulemus viitab välispankade poolt kõrgema riskitaseme aktsepteerimisele, mis võib tähendada ka moraalse riski olemasolu. Välispangad loodavad emapankade toetusele finantsraskustesse sattumise korral (seda näitas ka läbi viidud küsitlus) ja seetõttu võtavad suuremaid riske, mis võimaldab kõrgemat varade tulutootlust.

Kokkuvõtvalt leidsid hüpoteesid välispankade turule sisenemise motiivide ja ajastamise kohta selget kinnitust. Peamiseks välispankade turule sisenemise motiiviks oli uute turgude otsimine, mis seondus teoreetilises osas toodud eklektilise paradigmaga (Dunning'i OLI teooria). Finantsliberaliseerimine (FL) tekitab täiendavaid tõmbetegureid välispankade sisenemiseks. Finantsliberaliseerimise käigus eemaldatakse tõkked välispankade sisenemiseks ja finantsliberaliseerimise järel on toimunud KIE riikides pangakriisid. Välispankadel on pangakriiside ajal täiendav omanduseelis parema reputatsiooni ning kapitaliseerituse näol. Pangakriiside ajal on välispankadel odavam turule siseneda, sest siis on konkreetses pangandussektoris kodumaiste pankade varade hind madal ja on odavam neid üle võtta. Kuna välispankadel on kasulik turule siseneda just kriiside ajal, siis peamiseks tehnoloogia ülekandeks emapankadest tütarpanka-

desse on riskijuhtimise tehnoloogia, mis omakorda suurendab välispankade omanduseelist.

Välispankade turule sisenemise mõju kohalike pankade tegevusedukusele ja pangandussektori stabiilsusele uuriti otseste välisinvesteeringute teooria raames. Püstitatud hüpoteesid välispankade turule sisenemise mõju kohta kohalike pankade tegevusedukusele leidsid osalist kinnitust. Välispankade sisenemise konkurentsiefektidest ja ülevooluefektidest annab ülevaate joonis 2.

Uurimistulemused näitasid, et välispankade sisenemisega kaasnev täiendav konkurents vähendab kohalike pankade raamatupidamislikku tegevusedukust. See efekt oli nõrgem kõrgema pangandusturu arengutaseme korral, mis toetab tehnoloogia mahajäämuse hüpoteesi kehtivust KIE riikides. Konkurentsiefekti mõjul muutus kohalike pankade tegevus ettevaatlikumaks. Sellest andis tunnistust kohalike pankade laenuportfelli kvaliteedi kasv välispankade sisenedes ja ka kõrgem likviidsete varade osakaal ning kapitaliseeritus võrreldes välispankadega. Seega võib konkurentsi efekti pangandusturu stabiilsusele pidada positiivseks.
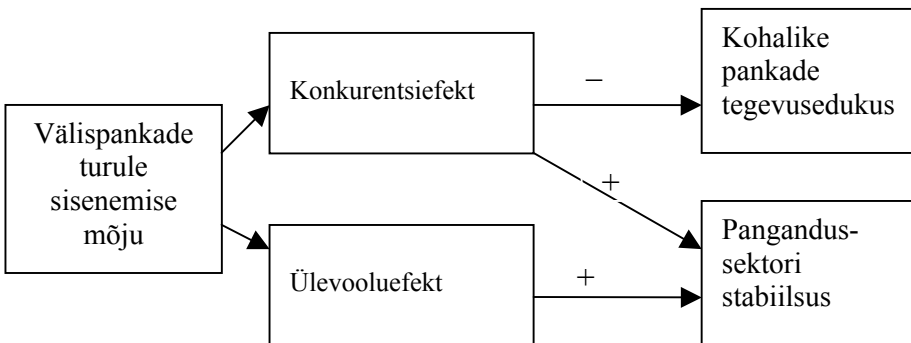
Joonis 2. Välispankade turule sisenemise mõju kohalike pankade tegevusedukusele ja stabiilsusele.

Analüüsist selgus ka mõningal määral välispankadelt kodumaistesse pankadesse teadmiste ülevooluefekti olemasolu KIE riikides. Küsitluse tulemused näitasid, et kodumaised pangad on saanud välispankadelt uusi teadmisi riskijuhtimise, infotehnoloogia ja kulude juhtimise aspektides.

Võimaliku ohuallikana analüüsiti ka välisomanduse kontsentratsiooni KIE riikides. 2003. aasta lõpu seisuga omasid Rootsi pangad 76% Eesti kommertspankade aktsiakapitalist, mis on kõrgeim ühe riigi omanduse kontsentratsioon KIE riikide hulgas. Hansapanga täieliku ülevõtmise järel 2005. aasta alguses Swedbank'i poolt, tõusis Rootsi pankade osalus veelgi. Väga kõrge omanduse kontsentratsiooni korral võib tekkida nakkusefekt mõlemas suunas. Rootsi

pankade välisekspansioon on tugevasti kontsentreerunud Balti riikidesse. Võimalikud probleemid Balti riikide pangandusturgudel kanduvad üle ka Skandinaavia pankadele ning võimalikud negatiivsed sündmused Rootsi pangandusturul mõjutavad kahtlemata ka siinset pangandussektorit. Analüüsist selgus, et teistes KIE riikides on ühe riigi või regiooni pankade omanduse kontsentratsioon tunduvalt madalam.

Käesolev doktoritöö aitab mõista välispankade turule sisenemise motiive ja võimalikke tagajärgi vähemarenenud pangandussektoriga riikides. Doktoritöö tulemused on ka tulevikus kasutatavad välispankade mõjude analüüsimiseks siirderiikides. Välispankade huvi arenevate turgude vastu Ida-Euroopas on suur. Mitmed rahvusvahelised pangad otsivad võimalusi näiteks Venemaa, Ukraina ja Valgevene turgudele sisenemiseks ja võib prognoosida et välispankade osalus neis riikides on kasvamas ning välispankade roll siirderiikide pangandussektori arenemises on jätkuvalt aktuaalne.

Soovitusi tulevasteks uuringuteks

Pankade rahvusvahelistumise protsess ja selle võimalikud tagajärjed väärivad tulevikus kindlasti täiendavat uurimist. Antud valdkonnas on mitmeid olulisi uurimisteemasid, mida käesolevas doktoritöös selle piiratud mahu tõttu ei käsitletud. Käesolevas töös käsitleti välispankasid homogeensetena sõltumata nende asukoriigist ja rahvusvahelistumise tasemest. Üks võimalus välispankade rolli edasiseks uurimiseks siirderiikides oleks põhjalikum välispankade stra-teegiate esile toomine ning välispanga tehnoloogilise taseme ja rahvusvahelistu-mise kogemuse muu oskusteabe arvestamine välispankade mõju analüüsimisel.

Pangateenused Euroopas ja mujal maailmas on üha tihedamalt seotud kindlustustegevusega. Kindlustusettevõtted KIE riikides on veel üsna vähe arenenud ja kindlustusturgude kasvu potentsiaal on suur. Edaspidistes uuringutes võiks panganduse ja kindlustuse rahvusvahelistumist käsitleda koos ning uurida millised on rahvusvaheliste pankade ja kindlustusettevõtete strateegiad koostööks ja kuidas see mõjutab finantssektori arengut siirderiikides.

Lähemalt vajab uurimist ka välisomanduse, omanduse kontsentratsiooni ja süsteemse riski seos panganduses. Pangandusturud on üha tihedamalt põimumas riikidevaheliselt ja seetõttu tuleks uurida millised on erinevad šokkide ülekande-mehhanismid. KIE riikides ei ole esinenud välispankade domineerimise ajal pangakriise, mistõttu ei ole seni ka veel lõplikult selge kas välispankade kohalolek ja nende domineerimine turul hoiab tulevikus ära pangakriise.

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