

**INTER-TEMPORAL COMPARATIVE VIEW OF
THE ESTONIAN INWARD-OUTWARD FDI PATTERN**

Tõnu Roolaht, Urmas Varblane

Theme: **Patterns of Transition**

PhD Tõnu Roolaht Senior Researcher of International Business University of Tartu, Faculty of Economics and Business Administration Narva Rd. 4-A219, 51009 Tartu, Estonia Phone: +372 7 344 950 Fax: +372 7 376 327 E-mail: tonu.roolaht@mtk.ut.ee	PhD Urmas Varblane Professor of International Business University of Tartu, Faculty of Economics and Business Administration Narva Rd. 4-A226, 51009 Tartu, Estonia Phone: +372 7 376 361 Fax: +372 7 376 327 E-mail: urmas.varblane@mtk.ut.ee
---	---

**Paper Presented at the
European Association for Comparative Economics Studies (EACES)
10th Bi-Annual Conference:
PATTERNS OF TRANSITION AND NEW APPROACHES TO COMPARATIVE ECONOMICS
Moscow, August 28-30, 2008**

ABSTRACT

Proposed paper discusses the foreign direct investments in the transition economy from the inward-outward perspective. Authors investigate Estonian companies who have received as well as made foreign direct investments. The paper outlines inter-temporal changes in the motives, problems, and determinants considered to be most important by these investors. The aim of the paper is to determine the changes in the Estonian inward-outward FDI pattern over almost a decade. First survey of Estonian inward-outward FDI was conducted by authors and their colleagues in 2001. These responses included retrospective data concerning 1997. Follow-up survey took place in 2006. By comparing the results of these two surveys, we are able to draw important conclusions concerning the changes in the transition of Estonia as well as generalise these results at least to all three Baltic countries, which are to the great extent similar. The paper starts with an introduction of theoretical approaches connecting inward FDI and outward FDI. FDI recipients tend to have better financial and knowledge basis for the expansion abroad than solely domestic companies. However, the foreign owners are not always supportive to these indirect FDI (FDI intermediated via subsidiary) initiatives. In some occasions corporate policies favour strict role distributions, which foresee only limited regional authority for FDI recipient subsidiaries. It can even lead to outward disinvestment from some target markets. These strategic considerations are likely to emerge or disappear in time according to the changes in the competence levels of the foreign owner company and its subsidiary in a transition country. The proposed inter-temporal comparison sheds light on the transforming nature of indirect FDI in Estonia. Authors offer a versatile comparative static view of inward-outward FDI determinants along with the background information about FDI flow dynamics during the observation period. This enables us to provide several theoretical, managerial and policy implications.

Keywords: inward-outward FDI, transition economy, inter-temporal comparative analysis

INTRODUCTION

The transition of post-socialist countries to the market-based economies has been described by considerable leverage in the form of foreign direct investments (FDI). The new growth and business opportunities in Central and Eastern Europe (CEE) sparked interest of several large investors. Unlike local investors, they had added benefit of long term experience in market functioning as well as often superior business knowledge and technology. In the early and mid-90s large multinational companies and also smaller western companies expanded into transition economies.

Occasionally FDI recipient companies continue this pattern of expansion by making outward foreign investments. Such indirect FDI cases or in other words inward-outward investments take place for several different reasons. The local FDI recipient might for example have better understanding of other transition economies, than the western owner. Thus, in order to utilise these competences investment is made via such subsidiary. More pragmatic motives include taxation advantages of such indirect FDI or other similar regulatory advantages. Sometimes outward FDI is made already at times when local unit was domestically owned and after inward FDI these foreign commitments are just preserved. Over time the motives for such inward-outward FDI might change.

The foreign owners do not always favour such indirect FDI initiatives. Some corporate policies foresee strict role distributions with only limited regional authority for FDI recipient subsidiaries. Such corporate visions can even prescribe disinvestment from some target markets. These strategic considerations can differ in time according to the changing competences of the foreign owner and its FDI recipient subsidiary.

The aim of this study is to determine the changes in the Estonian inward-outward FDI pattern over almost a decade. Such inter-temporal comparison is based on two surveys. First of them was conducted in 2001. The responses of this survey included retrospective data about 1997. The second survey took place in 2006. The surveys were conducted by the authors and their colleagues. By comparing the results of these surveys, we are able to draw important conclusions concerning the changes in the transition of Estonia and generalise them to other Baltic countries, which are in many aspects similar.

The paper starts with a theoretical discussion about relationships between inward FDI and outward FDI. After the theoretical overview, the following section describes the distribution of Estonian inward and outward FDI, while outlining the largest recipient companies and Estonian investors. This overview is based on official statistics and other secondary data. Due to the time lag in dissemination of sector and company level data some of these figures reflect the period of two or more years ago.

In the next section, we offer the versatile comparison of inward-outward FDI linkages on an example of foreign-owned Estonian companies. This discussion is predominantly based on the surveys of outward FDI from Estonia conducted in 2001 and 2006. Unfortunately both datasets have limited number of responses, but due to the smallness of Estonian economy, they include in some sectors almost all major companies. The concluding

discussion addresses limitations of the study, draws relevant theoretical, managerial and policy implications as well as outlines suggestions for future research.

THEORETICAL BACKGROUND

During last decade several studies describing the impact of FDI on foreign trade have been published (Brouthers et al. 1996; Leichenko, Erickson, 1997; Sun 1999; Liu et al. 2001; Weresa 2001; Kaminski, Smarzynska 2001; Tadesse, Ryan 2004; Okubo 2007; Egger 2008). Therefore, the impact of inward FDI on exports has been already well researched.

The impact of inward FDI on outward investments made by target country companies has found much less attention. So called indirect FDI and its role in the CEE has been discussed by Altzinger et al. (2003). Pradhan (2004) has analysed the determinants of outward FDI. There are also studies about the impact of outward FDI on domestic investment (Herzer, Schrooten 2008; Braunerhjelm et al. 2005), on home-country employment (Masso et al. 2008), on productivity (Damijan et al. 2007), on poverty (Tsai, Huang 2007), and on knowledge spillover (Lee 2006). Inward-outward FDI flows have been modelled from a corporate control perspective as well (Head, Ries 2008). Love (2003) analyses the outward FDI as a tool for technology sourcing, while Gorynia et al. (2007) and Barry et al. (2003) and test the outward FDI aspect of the investment development path concept. Differences in the outward FDI by company size have been examined too (Svetličič et al. 2007). Earlier outward FDI study has been published in Varblane et al. (2003). The multitude of these studies shows the growing interest in the outward side of FDI. The inward-outward connections of FDI, however, are still relatively under-investigated.

The descriptions of main linkages can be found in internalisation literature (Buckley 1988; Williamson 1975, 1994), in concepts describing intra-corporate relations (Bartlett, Ghoshal 1986; Martinez, Jarillo, 1991; Gupta, Govindarajan, 1991; Birkinshaw, Morrison, 1995) and in inward-outward internationalisation discussion (Welch, Luostarinen 1993; Luostarinen, Hellman 1994; Korhonen 1999). Although, these three views are dealing with broader issues, than just the foreign direct investments, they incorporate also this aspect.

So, for example, the transaction cost approach of internalisation could be useful in explaining why multinational company prefers establishing subsidiaries to the export relations with third parties. The reason for this lies in lower costs of intra-organisational transactions in comparison with market transactions, because of the possible opportunism in contractual market relations (Williamson 1975).

When one relates these internalisation advantages with principles of corporate management and role distribution it could be seen, why inward FDI and related changes in management can bring along the replacement of recipients export activities with outward FDI into neighbouring regions. The implementation of this scenario depends, however, to the great extent on the strategic role attributed to the Estonian recipient in the corporate structure of the large international company.

In the literature the differentiation is made between the roles of implementer, contributor, and strategic leader (Bartlett, Ghoshal 1986). Foreign affiliates could be described as autonomous, receptive, and active (Martinez, Jarillo, 1991). The inter-subsidiary information flows are described as incoming or outgoing (Gupta, Govindarajan 1991) and situations highlighted where subsidiaries are assigned elaborate authorities over products or activities (Birkinshaw, Morrison 1995).

The likelihood of outward FDI by Estonian subsidiaries increases with the scale of subsidiaries authorities in region and with subsequent increase in its autonomy from foreign parent. However, instead of global mandate it would be more appropriate to speak about the mandate of the regional coordinator. The other extreme would be the situation where the foreign owner does not increase the subsidiary's authority, but oppositely reduces its international role. That could happen, because parent already has its own subsidiaries in nearby target markets. This strategic vision of foreign owner might in extreme case lead to the end of Estonian subsidiary's foreign operations, because according to the assigned role subsidiary has to concentrate on its domestic market. Naturally, given alternatives are somewhat archetypical, in practice the power distribution between parent company and subsidiary could sometimes be much more multi-faceted, where large autonomies in some areas are combined with strict subordination in others. In international business practice, the financial decisions tend to be the most centralised business functions.

A more general view about possible inward-outward connections is offered by Finnish School (Welch, Luostarinen 1993). According to them, the acquisition by foreign owner has an impact that is in many respects similar to the internationalisation of purchasing. If topics discussed in connection to transactional aspects and role distribution could in this context be viewed as direct connections, then the indirect connections supported by foreign ownership are equally important. The recipient company learns also how to handle several problems and procedures related with making foreign direct investments, and, thus, prepares itself for its own investments abroad.

Another approach by Luostarinen and Hellmann (1994) shows that inward internationalisation does often precede the outward internationalization. This kind of sequence is especially characteristic for companies from small open economies, because there are insufficient domestic resources for providing all industries with domestic inputs and equipment.

The most interesting aspect revealed by Luostarinen and Hellman (1994) is, that from the viewpoint of inward-outward connections within the entire value chain, the outward FDI supported by inward investments could still be made into inward section of value creation process (for example in order to produce components even cheaper than in Estonia). This shows why it is important to differentiate between the inward-outward connections of holistic internationalisation process, and inward-outward connections of FDI. Therefore, in the context of the latter, virtual differentiation of influences to intra-company and outward processes could be visible.

Technology transfer as the development of inputs could be restricted only with purchases of equipment, but in interconnection with inward FDI this process is usually more elaborate. In addition to providing equipment, foreign ownership creates numerous possibilities to learn about technological know-how and to exchange experiences with subsidiaries in other countries.

In certain situations foreign owner might find it difficult to control the technology and knowledge transfers from parent to subsidiaries, especially, when the long term interests of foreign owner are quite different from the host country government's interests in technological development of the companies sold to foreign investors. For example, survey has shown that foreign parents are rather reluctant to transfer new patented technologies into Estonian subsidiaries (Foreign Investor 2001). Therefore, even foreign direct investments tend to provide access only to common technologies that are widely used.

Despite this, the FDI related technology and knowledge transfers are still very important tools for modernisation of local companies. On the basis of the foreign support, recipients become capable of making similar investments into even less developed regions at some later point in time. Thus, the increase in company's technological capability and market competence is another factor that creates favourable situation for making outward foreign investments as a logical continuation to receiving inward FDI. The crucial role in this process is played by recipient company's absorptive capacity that enables it to effectively conduct these multi-directional transfers and benefit from them (Gelbuda et al. 2003).

In terms of impact to the input factors, the inward FDI has often an important role in determining wage conditions. In a situation, where foreign investor prefers to pay wages that are above the market average, in order to attract most qualified employees (Conyon et al. 2002), the advantages of recipient company might start to shift towards operations with higher value added. The operations based on cost-advantages will then be moved elsewhere by using outward FDI as the entry mode. Therefore, the upward pressure to wages, imposed by foreign capital, can also facilitate the increase in outward FDI.

However, this wage pressure tends to be closely related with investor's motives. The efficiency seeking foreign investors are more interested in avoiding the increase of labour costs in a recipient company. Therefore, this upward pressure is far less common for average worker than in a case of small number of management positions (see Erickson, Kuruvilla 1994; Leahy, Montagna 2000). Given the continuous development of companies and increase in their experience of production, it is still likely that cost advantages disappear over time, creating a need for reorganisation of business in a described manner.

One specific channel of inward-outward FDI is related with investments into tax heavens or into low tax areas. In case of these investments, the host country unit will function as a mediator of parent's subsequent productive investments into other regions. Even the investments from tax heaven into parent's home country could take place. From Estonian viewpoint, it is more relevant to discuss, how these connections reveal themselves in low tax economies. Because the capital reinvested by companies is in Estonia free from

corporate income tax, the financial management considerations should favour a situation where the investments to other countries are made through Estonian subsidiaries.

In previous paragraphs we discussed the connections of inward and outward FDI from the perspective of input or intra-company influences. The inward FDI, that turns company into a foreign owner's host subsidiary, improves also company's market opportunities. From one viewpoint, this change involves the transfer of parent's positive image as a large international company to its subsidiary, which gives latter new possibilities in investing to foreign markets. (Neivelt 2002)

The image of being Western company is especially important in expansion to Central and Eastern European Countries. In addition to more favourable origin image, the foreign ownership strengthens also recipient company's financial credibility. This is also a good precondition for foreign expansion via outward FDI, because new international brand makes several entry procedures a lot simpler. (Ibid.)

In the context of output influences, it is appropriate to review the wage trends discussed above. The investments into production re-allocation could also be interpreted on the basis of more elaborate cyclical developments in an outward section of a value chain, caused primarily by development differences between the countries. The development of Estonian economy leads for example to the situation, where some products and services become more marketable in less developed neighbouring countries than at home. In the domestic market Estonian companies can start to offer more sophisticated and upmarket products and services. The primary importance of inward FDI in this cyclical process lies in the facilitation of country's economic development (Ericsson, Irandoust 2000).

Based on Estonian experiences, the issue of causality in inward-outward FDI connections should be addressed. In case of Hansabank, several outward investments were made already prior to the engagement of strategic foreign owner. Therefore, it could be argued that foreign investor's interest in acquisition was sparked by successful foreign expansion of domestic company or in other words outward FDI initiated inward FDI. In many respects similar processes preceded the acquisition of wood and forestry company Sylvester by Stora Enso. In conclusion, it seems that although in most cases foreign owners have an important role in initiating and facilitating outward FDI, the reverse causality is also possible. It means that the foreign positions established by domestic company attract foreign investors.

The inward-outward FDI connections on industry level are most evident in service sector, because the operational characteristics of these companies do not support the use of exporting as an alternative entry mode or enable to do it in a very limited manner. The service companies tend to establish foreign subsidiaries in an earlier stage of internationalisation than manufacturing companies. The main idea behind service companies' foreign expansion relates to the somewhat modified transfer of domestically created competencies into similar, but often somewhat less developed, foreign markets. Examples of this approach are real estate and hotel services.

In conclusion, it could be said, that although inward-outward FDI connections are not widely researched, we were still able to identify several influences of these connections to the inward and outward aspects of host subsidiary's value chain that could be generalised to industry level. In the following section, the inward and outward FDI patterns of Estonia on industry level and (some examples) on company level are reviewed.

DATA AND RESEARCH METHODS

The following empirical section is based on survey data as well as on statistics from Estonian Bank and from Statistical Office of Estonia. The primary survey data was collected in 2001 and in 2006. Inward-outward connections of FDI into and from Estonia were initially analysed using the survey of Outward FDI made by Estonian companies, conducted in cooperation of University of Tartu and Estonian Investment Agency in 2001. The questionnaire included also questions about the amount of FDI received by the investing companies. Answers revealed, that from 69 respondents (altogether 194 questionnaires were sent out, response rate being thus about 35.6%) 45 companies had received foreign capital and 24 companies could be denoted as entirely domestic companies. The follow-up study of outward FDI was conducted in 2006. In this case the questionnaires were filled during face-to-face meetings. This process rendered 38 responses. In order to further validate the results of primary data, we offer short review of statistical data as well. The secondary data used in the following two sections origins from the Central Bank of Estonia, Statistical Office of Estonia, and United Nations Conference on Trade and Development (UNCTAD).

In terms of research methods for data analysis, the low variance of certain key variables and the considerable number of missing observations in datasets did not allow us to use very advanced methods of data analysis. Therefore, the survey data analysis remains regrettably limited to the calculation of respondent percentages or average scores and standard deviations. In addition to that single factor ANOVA analysis was applied in order to test the differences of sample means. However, even this relatively basic level of primary data analysis should help to describe the inter-temporal changes in outward FDI pattern, problems, advantages, motives and directions from the perspective of two separate investor groups – indirect investors and direct investors. The indirect investors are outward investors who have also received FDI, whereas the direct investors are domestic companies.

THE CHANGING ROLE OF OUTWARD FDI IN THE ESTONIAN ECONOMY

Estonia has been rather successful in attracting foreign capital and the inflow of FDI has played very important role in the Estonian economy. The following Table 1 provides some indicators reflecting the importance of inward and outward FDI. The ratio of inward FDI stock to GDP has grown from virtually zero level in early 1990s to 72.6 % of GDP in 2007 (Bank of Estonia, 2008). In the international comparison Estonia is with remarkable high intensity of inward FDI. The ratio of the total stock of inward FDI to GDP in 2006 Estonia was the highest among the EU new member states and in EU only Belgium, Luxembourg and Malta had higher ratio. (WIR, 2007)

Estonia is a latecomer on the outward investments arena. Until the year 2000 the outward investments had really minor importance in the internationalisation of Estonian firms and the ratio of OFDI to GDP was only 4.7 %. Within the following years the OFDI stock has grown rapidly and by the end of 2007 the ratio to GDP has reached to 25.7 %. It indicates that Estonian firms are entering a new stage of internationalisation, where in addition to the exporting also outward FDI mode will be used intensively.

Table 1: The importance of inward and outward FDI in the Estonian economy

	1996	1998	2000	2006	2007
Inward FDI stock as % of GDP	25.4	33.4	48.3	77.2	72.6
Outward FDI stock as % of GDP	2.6	3.6	4.7	22.0	25.7
FDI inflows as % of gross fixed capital formation	13.0	37.1	32.7	30.1	68.2
FDI outflows as % of gross fixed capital formation	3.5	0.4	5.1	19.9	42.3

Source: Calculated by authors from Estonian Bank data.

By the ratio of OFDI stock to the GDP, Estonia is leading country among the new EU member states from the Central and Eastern Europe. In 2006 the share of OFDI in Estonia was 22%, followed by Hungary 11.3 % and Slovenia 10.6 % of GDP (WIR, 2007). The ratio of OFDI flows to the gross fixed capital formation is growing very rapidly as well. In 2000 the share of OFDI flows formed only 5.1 % of gross fixed capital formation, but already in 2007 the similar ratio reached already to the 42.3 % (WIR, 2007).

These data signal the change in the Estonian economy. Rapid economic growth between 2000 and 2007 (with the average annual growth rate 7.7 per cent) initiated rapid increase of labour costs and caused imbalance between the labour productivity and wage growth (Estonian Development Fund, 2008). Such changes created urgent need for adjustment and require the change of strategies on the firm level. The current position as the low-cost producer is soon in several business sectors no longer a viable strategy. Therefore, firms are starting to reduce labour intensity of their domestic operations and try to find new position in the global value chain. These tendencies facilitate the growth of outward investments from Estonia in several labour intensive areas (e.g. textile, clothing, furniture). According to the investment development path model (Dunning, 1981) – Estonia is going to enter the third stage, where the inward and outward flows are equalising and the net OFDI position is going to be closer to zero.

Figure 1 describes the dynamics of the inward and outward flows of Estonian direct investments between 1999 and 2007 as well the net position in millions of euros. In 2004 the ratio of outward to inward FDI flows of Estonia was 27 %, but in 2007 reached already 62 %. It is a sign about the rather rapid equalisation inward outward flows (Bank of Estonia 2008).

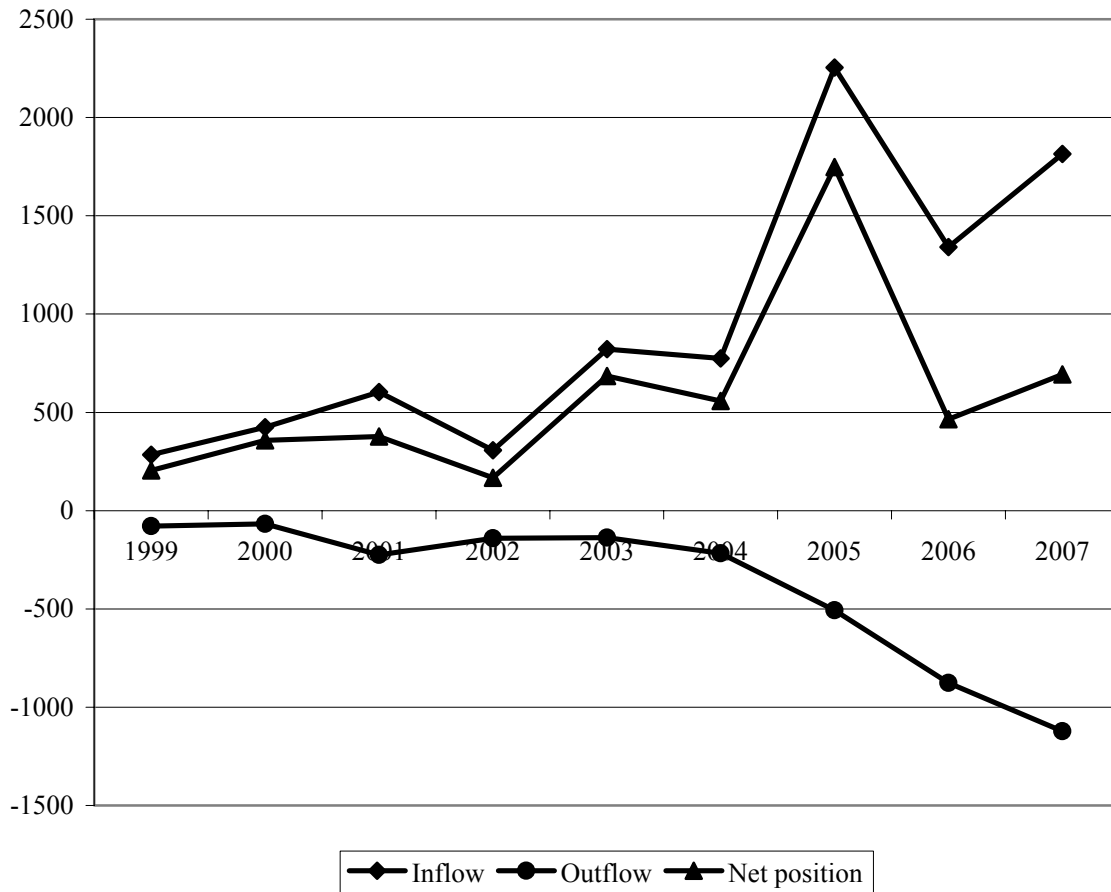


Figure 1. Inward and outward FDI flows and net position in Estonia between 1999 and 2007 (in millions of EUR) (Source: Bank of Estonia)

The total stock of Estonian outward FDI amounted to EUR 3993 million as of the end of December 2007, which is three times less than inward FDI. The ratio between the stock of outward and inward FDI was 35.4 % in 2007. By the fields of activity the most important sectors are financial intermediation with 39.7 % of total OFDI, followed by rapidly growing real estate and business services 31.3 % and transportation, telecommunication sector with 9.8% of total OFDI stock (see also Figure 2).

In case of Estonian OFDI previous research has identified three major specific features (Varblane et al., 2003):

- 1) service sector is playing dominating role in the stock of OFDI;
- 2) originally Estonian OFDI projects were transformed into the indirect OFDI (outward investments from firms located in Estonia, but owned by the foreign investors);
- 3) neighbouring catching up countries are the major destination for Estonian OFDI.

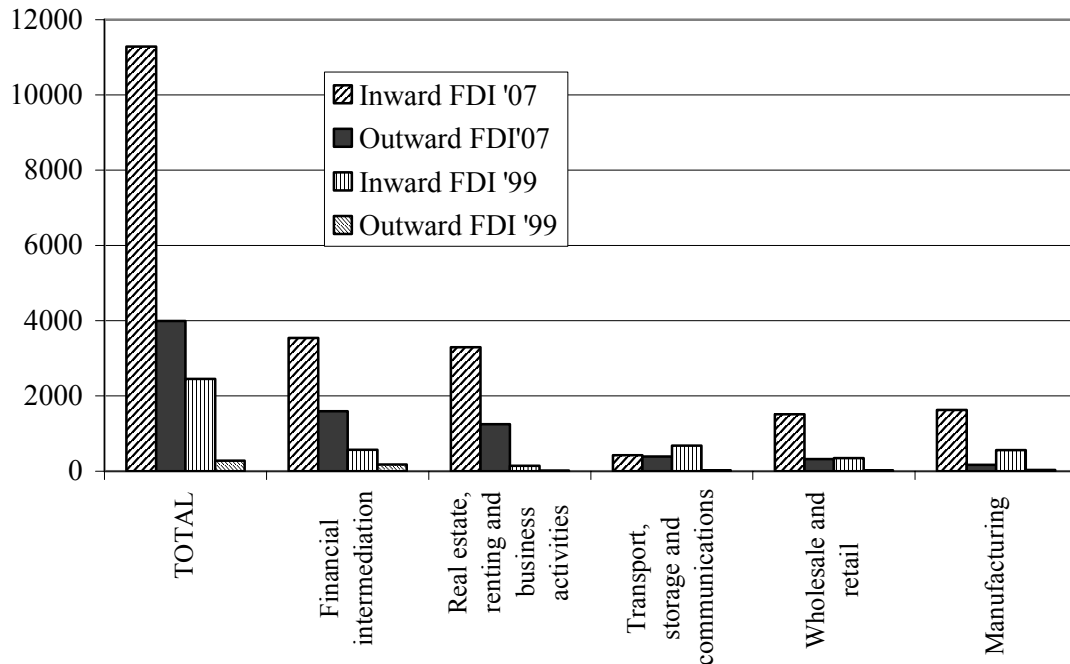


Figure 2. The investment position of Estonian industries in 1999 and 2007 (in millions of euros) (Source: Bank of Estonia)

Specific feature for the OFDI from Estonia is the dominating role of services. It could be explained by the strong domestic competition in several services – banking, leasing, real estate, transportation etc. It supported relatively quick accumulation of specific assets (professional skills, specialised know-how and customised services) needed in providing soft services. Due to the specific aspects of internationalisation in services the rapid market growth aimed by Estonian service providers required direct transfer of their services close to the foreign customers. It explains the dominating role of neighbouring countries in the Estonian OFDI as target areas. Latvia accounts for 33.6 % of total Estonian OFDI, Lithuania 29.7 %, Russia 8.5 %, and Finland 4.1 % (Bank of Estonia 2008).

The situation in Estonian manufacturing industries has been different. Estonia as a small country with very liberal foreign trade policy offered for domestic manufacturers good opportunities to enter near-by foreign markets using exports. As long as the cost advantage of Estonian companies kept production facilities at home, the role of OFDI in the manufacturing sector was mainly to support the export process by establishing various distribution affiliations (e.g. food, clothing, furniture, construction materials, wood products). More detailed view of the industry level patterns is offered in the next section.

Until the end of 1998 the majority of Estonian outward investors were made by domestically owned firms. Starting from 1999 the majority of these investors were acquired by foreign firms, thus transforming direct outward investors into the indirect ones.

THE FLOWS OF ESTONIAN FDI ON THE INDUSTRY AND COMPANY LEVEL

Before the analysis of inward-outward FDI linkages based on business practice of Estonian companies, we describe in this section the inward as well as outward foreign direct investments made to and from Estonia. The following discussion concentrates predominantly on the industry level flows, because the analysis of investment amounts by companies is restricted by data disclosure regulations of the surveys that have been conducted. Despite that we intend to describe some larger investments based on publicly available information.

Tables in appendices 1 to 5, illustrate the investment flows in both directions for subsequent periods from 1994-1996, 1997-1999, 2000-2002, 2003-2005 and 2006-2007. From the first table it is evident that in years 1994-1995 most foreign investments were made into manufacturing industries. Based on the business statistics collected by Statistical Office of Estonia, we can say that in 1995 food, beverages and tobacco industries got 26.9% of all FDI made into manufacturing industries and production of chemicals, chemical products and oil shale accounted for 24.3% (see Appendix 9).

If during years in between the chemical industries became most prominent recipients of inward FDI by getting 1/5 or even a quarter of all FDI into manufacturing, then for the year 2000 the relative importance of food and beverage industries increased again. In 2006 food and beverages accounted again for 23.5% of inward FDI (see Appendix 10). The pulp and paper industries got in the middle of 90s 8-10 percent of investments. Since 1997, the share of textile industries has fluctuated between 10 and 15 percent, being higher in a period 2001-2003 (see Appendices 9 and 10). In 2004-2006 FDI into wood and wood products has increased above 12%.

2003 and 2007 were the years of intensive investments into wholesale and retail trade (see Appendices 4, 5 and 7). If in 2004, 2005 and 2006 the inflows of FDI to trade sector were smaller then the year 2007 became record-breaking in terms of amount invested into Estonian wholesale and retail sector. In that year about 345 million euros were invested into that sector (see Appendices 5 and 7). These industry level data reflect the ongoing expansion of predominantly foreign owned retail chains in Estonia.

After the relatively volatile levels of investment inflows into transport, storage and communication, during the years 1999-2001 the annual flows stabilised above 64 million euros (see Appendices 2, 3 and 7). During that period the inflow of investments into communication was supported by the privatisation process of Estonian Telecom and the abolishment of monopolistic agreements concerning communication services. From 2002 the inflows have been again more unstable. In some years sector gains foreign assets and in others loses.

There have been certain very important changes in attractiveness of Estonian financial intermediation companies for foreign investors. When in 1994-1996 the FDI into that sector was modest in comparison with investments into manufacturing and trade, then the foreign

interest peaked first in 1998 with acquisitions of strategic shares of two largest banks. In connection with these deals more than 275 million euros were invested into financial intermediation. The level of FDI inflow into that sector has been even higher in 2005-2007, fluctuating between 785 million and almost 2 billion euros annually (see Appendices 4, 5 and 8). The largest investments into Estonian financial intermediation were made in the year 2005 when largest local bank Hansabank was completely overtaken by Swedbank.

In the year 2007, more than 310 million euros were also invested into Estonian real estate, renting and business activities. In earlier years, 1994-1997, only below 13 million euros inward FDI went annually into that industry, but in recent years the level has been much higher but very fluctuating (see Appendices 4, 5 and 8). In other industries, shown in Appendices 1 to 5, the FDI inflows have been in general much smaller than in described industries.

In terms of outward foreign direct investments, the first considerable flows occurred in 1996 (see Appendices 1, 6, 7 and 8). In this year, more than 16.3 million euros were invested abroad in the field of transport, storage and communication. In financial intermediation more than 11 million euros worth of outward FDI commenced that year. At that point in time, Estonian banks pursued the entry not only into Baltic markets, but also to Russia. In following year 1997, the financial intermediation companies invested abroad more than 64 million euros which considerably exceeded the level of inward investments into that sector of about 40 million euros in that year.

Because of the impact by Russian crisis, the outward FDI in banking remained in following period relatively modest. Only in 2001 the level of outward FDI returns above the level of 100 million euros, being in fact 225.5 million euros (see Appendices 3). This time the outward investments were mostly related with the acquisition made by Hansabank in Lithuania. This kind of dominant impact of one major deal on industry level figures is a clear illustration of how small Estonian business environment actually is. In 2001 the inward and outward investments in financial intermediation were on relatively similar level, while in 2007 total outward FDI flow exceeded 1.1 milliard euros and in financial intermediation it was close to 540 million euros (see Appendix 5).

2000 was also a year of first larger outward investments in the industry of real estate, renting and business activities. In that sector almost 48 million euros of outward FDI was made this year (see Appendices 3 and 8). In 2006 and 2007 annual outflows of FDI in that industry have exceeded 300 million euros. The almost 350 million euros invested in 2006 were even higher than 324 million euros invested in financial intermediation (see Appendix 5).

The outward investments in transport, storage and communication reached the highest level in 2007, by more than 96 million euros. In the very same year, largest investments to neighbouring economies were made also in wholesale and retail. The OFDI level of 94 million euros is comparable to that invested into transport, storage and communication industries abroad (see Appendices 5 and 7).

In manufacturing industries, the periods of outward investments have been exchanging with a periods of divestments (see Appendix 6). If in 1997 about 12.7 million euros of manufacturing investments abroad were made, then in 1998 2.7 million euros of accumulative divestments were reported (see Appendix 2). Somewhat similar tendencies, although by higher levels of investments, repeats itself in 2001 and 2002. In first of them almost 39.5 million euros were invested abroad, but in following year the amount of outward manufacturing investments decreased by 6 million euros. This large fluctuation of outward FDI in manufacturing industries is an indication of these companies sensitivity to the macro developments in economic environment. Although, starting from 2003 the flows of outward FDI in manufacturing have been steadily growing up to 34 million euros invested in 2007. In comparison this annual outflow is still much smaller than in already mentioned various service sectors.

To conclude the industry level analysis, we can say, that because of obvious development patterns the inward flows of FDI increased somewhat earlier than the outflows of investments made by Estonian companies. If first really major outward investments took place only at the very end of 1990s, then the first peak of inward FDI happened already in 1998 and after entry into the EU the inflows so far still tend to exceed outflows. The somewhat later development of outward FDI could be viewed as an indication of lagged inward-outward connections of FDI. In order to find further proof for this nature of FDI connections, more thorough inter-temporal analysis of companies and industries business practices should be made. This will be in the focus of following section.

In terms of FDI amount the leading places have been held by two biggest Estonian banks – Hansabank and SEB (former Union Bank of Estonia). First of them has been not only leading recipient, but also leading investor. Hansabank and its subsidiaries have made some very successful investments into Latvia and Lithuania. Latest project involved a gradual return to Russian market for industrial leasing services and corporate banking. Very active investor has also been BLRT Group, with its major acquisitions of Klaipeda Shipyard in 2001 and Turkku Shipyard in 2007, in order to increase company's ability to compete for the repair and building of large vessels. Considerable investments abroad have been made by hotel chains (Reval Hotel Group), construction companies (Merko), wood processing companies (Stora Enso Timber), passenger transport companies (Mootorreisi), human resource management companies (CVO Group) and in several other industries (Homepage of Reval Hotels 2008; Homepage of Merko 2008; Osula 2002; Ärm 2002). Most of these companies indicated have also been subject to inward foreign direct investments, thus representing the category of indirect investors.

INWARD-OUTWARD FDI CONNECTIONS IN ESTONIAN BUSINESS CONTEXT

This section is predominantly based on two surveys of outward investors. The general characteristics of data were introduced above. Here we offer some additional details about the nature of investigated companies. From the recipients of FDI (indirect investors) 17.7% in 2001 and 47.6% in 2006 were from manufacturing industries, 42.2% in 2001 and 9.5% in 2006 from wholesale or retail businesses, 15.5% in 2001 and 9.5% were operating in the

financial intermediation, and 35.5% in 2001 and 33.3% in 2006 were service companies. Among domestic companies (direct investors) the subsequent figures were following: 37.5% and 64.7% manufacturing companies, 25% and 5.9% trading companies, 20.8% and 5.9% financial intermediates, or 29.2% and 29.4% service companies (see also Table 2). Some of the respondent companies are operating in several of these fields, being for example manufacturing and trading companies. As we can see the follow-up survey in 2006 includes relatively higher share of manufacturing companies. This is important limitation to be accounted for in our comparative analysis.

Table 2: The comparative data of indirect (received FDI) and direct Estonian outward investors

	Indirect investors			Direct investors		
	2001	2006		2001	2006	
Number of companies	45	21		24	17	
from them*: in manufacturing	8	10		9	11	
in trading	19	2		6	1	
in financial services	7	2		5	1	
in services	16	7		7	5	
	1997	2000	2005	1997	2000	2005
Outward investments (mil. euros)	27.5	86.9	-	4.5	42.1	-
Average fixed assets (mil. euros)	1.5	3	-	0.26	0.88	-
Average net sales (mil. euros)	-	-	49.69	-	-	10.06
Average profit (mil. euros)	-	-	16.08	-	-	1.04
Average number of employees	272	386	705	79	100	326
Average export to foreign units (mil. euros)	0.23	0.47	-	0.05	0.12	-
Foreign units per company (percentage of respondents)	units	1997	2005	units	1997	2005
	0	37	14	0	52	6
	1	32	33	1	33	47
	2	22	33	2	10	6
	3	5	9.5	3	0	29
	≥ 4**	5(25)	9.5(10)	≥ 4**	5(9)	12(33)

*company can be operating in several sectors

** in parentheses biggest number of foreign units per company

Source: The Surveys of Estonian Outward FDI (2001, 2006)

From table 2 we can also see that indirect investors, who have received FDI themselves, have in both reviewed years made several times larger outward investments than domestically owned companies (so called direct investors). In 1997, the average outward investments by these sub-samples differentiated more than six times and in 2000 about two times. Thus, the investment amounts of domestic companies has during this three year period considerably grown, put the supportive role of inward investments is still clearly evident. Unfortunately newer questionnaire used in 2006 did not include question about investment amounts. Therefore, comparison of similar figures in 1997 and in 2005 is not possible.

These average figures reveal also, that on the basis of fixed assets, the indirect investors are on average somewhat larger companies than direct investors. This gap between the sub-sample figures as also decreased over the period 1997-2000. Instead of difference that was 5.7 times in 1997, in 2000 the figures of average fixed assets of indirect and direct investors' differed only 3.4 times. For the newer comparison of two investor groups we can rely on average net sales and profits. According to these data the indirect investors remain on average larger than directly investing counterparts. Indirect investors are larger also according to the average number of employees (see again Table 2). In this respect the comparative data is available for entire period, and the size gap between two groups has remained over time.

The inward-outward connections are probably most evident when we look at the exports from investing company to its foreign units (data available only in first survey for 1997 and 2000). The indirect investors are once again much more active in trading with foreign units (see export figures in Table 2). Import figures are not shown in table because the amounts are almost non-existent, especially in case of direct investors. All in all, indirect investors have more integrated operations between investor and its foreign units.

These interpretations, however, should be very cautious, because the inclusion of one powerful and internationally integrated company into the sub-sample of indirect investors, might bias the results considerably, when there is no similar large player in the sample of domestic companies. Detailed look at the dataset revealed that in 1997 only one domestic company reported some imports from foreign unit and in 2000 there was just two companies importing. This result is probably the combination of data collecting problems and the actually low level of inter-unit imports.

In terms of foreign units per company, the indirect investors were initially more expansionist than domestically owned counterparts. By 2005 the situation has gone through some changes. The indirect investors tend to have one or two foreign units, while several direct investors have opted for even higher number of affiliates abroad (refer back to Table 2). The maximum number of affiliates was in 1997 higher for indirect investors, reaching as high as 25 units per company, but in 2005 for direct investors, reaching up to 33 foreign units per investor. The last data should again be interpreted with caution, because it might represent an outlier.

In order to get more detailed picture about the inward-outward FDI connections, we now compare the answers of both investor groups about the investment problems. From table 3 it can be seen that the lack of financial resources has much lower importance for indirect investors, supported by inward FDI, than for direct investors. The standard deviation, that describes the variation of evaluations around the mean, is for both sub-samples quite similar and relatively low. Thus, the responses of companies are not very polarised, although the standard deviations for evaluations of financial problems are in general somewhat higher than in case of other investment problems. It is important to mention that due to the different Likert scale in follow-up survey, the mean evaluations are directly comparable only between investor groups and not between the time periods.

Table 3: The means and standard deviations of indirect and direct investors' evaluations of investment problems (on scale 1-unimportant...5-very important in 2001 and on scale 1-unimportant...4-very important in 2006)

	Indirect investors		Direct investors	
	2001	2006	2001	2006
Lack of financial resources	mean 2.81 stdev 1.29	mean 2.22 stdev 0.81	mean 3.52 stdev 1.24	mean 2.67 stdev 1.27
Lack of qualified labour	mean 3.81 stdev 1.15	mean 3.00 stdev 0.91	mean 3.96 stdev 0.98	mean 3.06 stdev 1.11
Lack of information	mean 3.20 stdev 1.10	mean 2.71 stdev 0.85	mean 4.00 stdev 1.10	mean 2.59 stdev 1.12
Target country specific factors (risk & investment climate)	mean 3.90 stdev 0.96	mean 3.17 stdev 0.71	mean 4.27 stdev 0.77	mean 3.06 stdev 1.03
Home country specific factors (regulation & administration)	mean 2.70 stdev 1.24		mean 3.18 stdev 1.18	
Lack of experience in the field of foreign activities		mean 2.53 stdev 1.04		mean 2.44 stdev 1.10

Source: The Surveys of Estonian Outward FDI (2001, 2006)

Even larger differences in mean evaluations, than for financial problems, were in 2001 characteristic to the lack of information as an investment problem. Back then direct investors considered it to be more important than indirect investors. By 2006 the difference in opinions concerning information is marginal.

The deviation of opinions within the investor group is lowest in case of judging target country factors as problematic. Target country factors are most problematic also for indirect investors, but once again the direct investors perceive it as a greater problem than the companies supported by inward FDI. In 2006 the difference of opinions between two investor groups is in this category again marginal, and thus rather insignificant.

For given problem fields, the differences of sub-sample means were in 2001 statistically significant at $\alpha=0.05$ level only in case of lacking financial resources or lacking information. The differences of evaluations by indirect and direct investors about the lack of personnel, target country specific factors, and about home country specific factors did not prove to be statistically significant. Thus, we cannot say that indirect and direct investors' views about these two investment problems are very different. In 2006 none of the differences in means between investor groups were statistically significant at the confidence level $\alpha=0.05$. This result might be influenced by the small sub-sample sizes in the follow-up survey, but it could also indicate the growing similarities between two groups of investors.

To conclude, the analysis of initial survey showed that the supportive role of inward FDI could be characterised in terms of availability of financial resources and by transfers of much needed information for the expansion abroad, as well as in terms of an easier and

better access to target country markets. The last aspect is very important especially in cases where the target country is home country for company's foreign owner or a market where the owner has already long curricula of operations. In case of investments into other Baltic countries, it is not very likely to be the situation.

The 2001 survey shows that the target markets for indirect investors' exports have been more in Central and Eastern Europe (CEE) (includes Baltic States) and in Commonwealth of Independent States (CIS), than these of direct investors. The direct investors tend to be more oriented towards European Union and their exports to CIS countries, including to Russia and to Ukraine, were rather modest.

In terms of regional location of foreign units, both investor groups have clearly targeted Central and Eastern Europe, whereas majority of units has been established in Latvia and Lithuania. Most respondents have in these countries 1-2 affiliates. Though, in certain cases the number of Baltic units is as high as 6-7. (The Survey of Estonian Outward FDI, 2001) Only few companies from both investor groups have established foreign units in EU countries, first of all in Finland. Thus, in terms of outward FDI, the target market choices of both investor groups are very similar and Baltic States have in this process clearly focal position.

The follow-up survey from 2006 reveals an increased expansion into CIS countries, like Russia and Ukraine, but this is so again in both groups. The survey data do not indicate pressure and support by foreign owners for the faster investing into more distant target markets. Based on export data, the foreign owners of Estonian investors are instead more interested in expansion into Eastern European markets. Therefore, it is more likely that owner companies transfer market experience from Estonian companies than from abroad into Estonia.

Table 4 reveals that foreign affiliates help first of all to increase market share abroad, facilitate exports from parent company, and help to increase production volume or number of products offered. Last effects have gained in importance over time, whereas increase in number of products is more characteristic to direct investors.

Table 4: The impact of foreign affiliate creation on parent (share of yes answers-%)

Due to the establishment of affiliate abroad:	Indirect investors		Direct investors	
	2001	2006	2001	2006
Company gained additional market share abroad	87.8	68.8	76.2	80.0
Employment in parent company increased	35.0	27.8	28.6	33.3
Exports of parent company increased	48.7	58.8	68.4	57.1
Imports of parent company increased	40.5	35.3	26.3	21.4
Production volume of parent company increased	36.1	66.7	38.9	53.9
Company gained access to cheaper inputs	32.5	29.4	25.0	26.7
Company improved customer feedback	59.5	52.9	50.0	60.0
Company increased the number of products offered	43.9	47.1	57.9	73.3

Source: The Surveys of Estonian Outward FDI (2001, 2006)

If we take a look at the investors' evaluations of their advantages over competitors, then from table 5a can be seen, that technological, organisational and marketing know-how have been considered equally important. Although, the indirect investors' mean evaluations of importance are in absolute terms somewhat higher than those of direct investors, at the confidence level $\alpha=0.05$, none of them did not prove to be statistically significant.

Table 5a: The means and standard deviations of indirect and direct investors' evaluations of competitive advantages in 2001 (on scale 1-unimportant...5-very important)

	Indirect investors	Direct investors
Technological know-how (product & process)	mean 3.78 standard dev. 1.21	mean 4.05 standard dev. 1.16
Organisational know-how (production organisation, management of subsidiaries etc.)	mean 3.80 standard dev 1.11	mean 4.00 standard dev. 0.95
Marketing knowledge	mean 3.79 standard dev. 1.18	mean 3.95 standard dev. 1.09

Source: The Survey of Estonian Outward FDI (2001)

By relatively stable standard deviations, the domestic companies tend to have more homogeneous opinions about the importance of organisational know-how. Based on the initial data, we can still say, that also extreme evaluations were used for all three categories of advantages. Given that the evaluations were on five point Likert scale, the standard deviations of responses could be viewed as quite considerable.

In 2006 follow-up survey respondents were only ask to choose up to three advantages from a list. The results provided in table 5b indicate that close to 60% of indirect investors stressed organisational know-how, while direct investors saw especially marketing skills and quality as their main success factors. Both investor groups set high importance also on technological know-how as one of their advantages in making outward foreign investments. Production effectiveness, distribution channels and logistics were least mentioned as the company's advantages in a situation of investing abroad.

Table 5b: The indirect and direct investors' evaluations of competitive advantages in 2006 (share from the number of respondents-%)

	Indirect investors	Direct investors
Technological know-how (about product & process)	47.6	35.3
Patents, licences and know-how	38.1	23.5
Organisational know-how (organising production etc.)	57.1	29.4
Marketing skills and knowledge	38.1	41.2
New products and/or services	38.1	23.5
Quality of products and/or services	33.3	41.2
More effective production	14.3	11.8
Distribution Channels	9.5	5.9
Logistics	4.8	0

Source: The Survey of Estonian Outward FDI (2006)

In terms of motives for outward FDI both investor groups set very high importance on market related aspects, like market presence, growth, closeness (see Tables 6a and 6b). The limited size of Estonian market is revealed as an important push factor. The evaluations given to these market related investment motives have low standard deviations, which indicate relatively uniform view about their role in general.

This means that outward FDI made by companies located in Estonia has been very market-oriented decision, either in order to utilise growth opportunities abroad or to overcome the disadvantages related to the smallness of home country. Even in case of FDI recipient companies the pattern of OFDI motives looks in general terms quite similar to that of direct investors both in 2001 and 2006.

Cost related motives are as yet far less important than market related motives. Somewhat surprisingly, judging by the mean evaluations in different periods, their importance seems to be even slightly diminishing over time. Although means in tables 6a and 6b are not directly comparable, the importance of non-labour costs for direct investors is in 2006 smaller even if we account for differences in scales. It is the availability of labour in general and even more so access to qualified labour, which facilitates outward FDI even more than cost pressures.

Although the strategy of the foreign owner is not the most prominent motive, it has still relatively high importance. Somewhat peculiarly even the sub-sample of direct investors recognises this motive as relatively important. This abnormality might be caused by sampling difficulties or by slight variations in a question during interviews.

ANOVA analysis showed that only the difference of group means in 2001 concerning natural resources as investment motives proved to be statistically significant at the confidence level $\alpha=0.05$. All other differences between indirect and direct investors in table 6a and 6b are too marginal to be statistically significant.

Table 6a: The means and standard deviations of indirect and direct investors' evaluations of motives for outward FDI in 2001 (on scale 1-unimportant...5-very important)

	Indirect investors	Direct investors
Market related motives (market size, growth, ...)	mean 4.88 stdev 0.45	mean 4.78 stdev 0.52
Labor costs	mean 2.58 stdev 1.20	mean 2.90 stdev 1.18
Other cost related motives (cheaper inputs, transport costs, taxes, tariffs)	mean 2.83 stdev 1.17	mean 3.22 stdev 1.41
Acquisition of strategic assets (trade mark, technology, ...)	mean 2.73 stdev 1.41	mean 2.95 stdev 1.32
Natural resources	mean 1.08 stdev 0.36	mean 1.43 stdev 0.75

Source: The Survey of Estonian Outward FDI (2001)

Table 6b: The means and standard deviations of indirect and direct investors' evaluations of motives for outward FDI in 2006 (on scale 1-unimportant...4-very important)

	Indirect investors	Direct investors
Presence at target market	mean 3.42 stdev 0.69	mean 3.24 stdev 0.75
Rapid growth of market	mean 3.32 stdev 0.75	mean 3.65 stdev 0.49
Closeness of target market	mean 3.30 stdev 0.66	mean 3.00 stdev 0.94
Limited size of Estonian market	mean 3.30 stdev 0.86	mean 3.59 stdev 0.51
Access to raw materials	mean 2.17 stdev 1.04	mean 2.50 stdev 1.56
Access to qualified labour	mean 2.84 stdev 0.90	mean 3.06 stdev 0.93
Availability of labour in general	mean 2.63 stdev 0.83	mean 2.80 stdev 1.09
Low labour costs	mean 2.33 stdev 0.77	mean 2.08 stdev 1.01
Other cost motives (cheaper inputs, transportation costs etc.)	mean 2.16 stdev 0.90	mean 1.79 stdev 0.96
Benefits offered to foreign investor	mean 1.67 stdev 0.84	mean 1.69 stdev 0.87
Access to new technologies	mean 1.53 stdev 0.61	mean 1.71 stdev 1.06
Acquisition of other strategic assets (brand, distribution channels etc.)	mean 2.28 stdev 0.89	mean 2.13 stdev 1.09
Following of home market clients	mean 2.00 stdev 0.91	mean 2.14 stdev 1.20
Following of competitors	mean 2.42 stdev 0.84	mean 2.27 stdev 1.09
Strategy of foreign owner	mean 2.74 stdev 1.10	mean 2.56 stdev 1.69
Cultural proximity	mean 2.41 stdev 0.80	mean 2.47 stdev 0.95

Source: The Survey of Estonian Outward FDI (2006)

In terms of future plans for expanding, establishment, and closing of foreign affiliates, it can be seen from table 7a, that about 80% of indirect investors planned in 2001 within next two years to expand their existing foreign units, whereas only 2/3 of direct investors had the same intentions. Within longer five year period, about 20% less companies planned to continue with expansion of existing units. At the same time, about 37.2% of indirect investors and 30.4% of direct investors planned within the next 5 years to establish new foreign units. Within the shorter period of two years about 20% of companies from both investor groups had this kind of establishment plans.

Table 7a: The future plans of indirect and direct investors concerning the development of their foreign units within 2 and 5 years in 2001 (share of respondents- %)

Intend to:	Indirect investors		Direct investors	
	within next 2 years	within next 5 years	within next 2 years	Within next 5 years
Expand existing foreign units	79.1	61.9	66.7	47.8
Establish new foreign units	20.9	37.2	20.8	30.4
Close existing foreign units	9.3	4.7	8.3	4.4

Source: The Survey of Estonian Outward FDI (2001)

Very few outward investors had plans to close the established foreign affiliates, and in this respect there are no major differences between the investor groups. In conclusion, largest differences between indirect and direct investors are characteristic to the expansion of existing foreign units. In this respect, indirect investors are more active within both proposed timeframes.

New data about development plans from 2006 follow-up survey suggest that several investors intend to pursue foreign expansion with a balanced mix of investing and exporting activities (see Table 7b). However, several indirect investors do not have set expansion plans for next 3 years at all. Further outward FDI without export operations was revealed as least preferred prospect for near future.

Table 7b: The future plans of indirect and direct investors concerning the development of their foreign investments and/or exporting within 3 years in 2006 (share of respondents- %)

In the next 3 years intend to:	Indirect investors	Direct investors
To make foreign investment and enter new export markets	28.6	35.3
To make foreign investment	4.8	5.9
To enter new export markets	14.3	29.4
No expansion plans	42.8	17.7

Source: The Survey of Estonian Outward FDI (2001)

These results show that surveyed companies, several of which are manufacturers, tend to view outward investment as an important complement to their export intentions, whereas foreign ownership might by now indeed somewhat inhibit companies' foreign expansion.

CONCLUSIONS AND DISCUSSION

In this paper we discussed inter-temporally the inward-outward FDI connections in Estonian context at the country, industry, and company level. The theoretical analysis of these inward-outward connections is still in the relatively infant state; therefore other more general approaches were also used for the theoretical characterisation of these connections. For example, internalisation approach to transaction cost theory can also assist in understanding the FDI connections. Other useful concepts include the views about intra-corporate relations, approaches concerning the strategic roles of foreign affiliates, and

holistic views of the internationalisation process. These theoretical approaches reveal that in majority of cases the inward processes precede the development in outward part of the value chain. At the same time, the experiences of Estonian companies point out the possibility for the opposite situation. The inward FDI is made into a company, who has become attractive because of its successful operations in nearby markets. This indicates that the causality patterns of inward-outward connections need more detailed investigation in the future.

One can differentiate between the impact of inward-outward FDI connections on the intra-company aspects (inputs) and on the company's market position and foreign market access (prospects). The first impact includes the technology and knowledge transfers into the Estonian companies, and increases in their managerial capabilities by forwarding these technologies and experiences into other foreign markets. These intra-company influences reveal themselves also as the changes in wage conditions, in terms of upward pressure or in some cases stagnation because of the need to retain low labour costs.

The second impact or the facilitation of foreign market access incorporates foreign owners' existing connections in the target markets (especially on its home market) and spill-over of the positive and well-known image of the foreign owner to its Estonian affiliate. Important role in terms of inward-outward FDI connections is played by certain differences in the development level of neighbouring countries. The data show that in case of the fast developing Estonian service sector, the OFDI flows and inward-outward connections are far more obvious than in the manufacturing.

The country level analysis of outward FDI revealed that its role has grown especially in new millennium. In 2000 the ratio of OFDI stock to GDP was only 4.7 %, but in 2007 it reached already 25.7%. It is a leading result among new EU member-states from CEE region. The ratio of OFDI flows to the gross fixed capital formation is growing equally rapidly. All these results indicate the growing importance of outward FDI.

The inter-temporal analysis of official statistics about inward flows of FDI on the industry level showed that during the first half of 1990s most foreign investments were made into Estonian manufacturing industries. The focal position was held by investments into food, beverage and tobacco industries and chemical industries. During the second half of the decade, the inward FDI into textile industries and into wholesale and retail trade increased considerably. Since 1998, the high levels of inward FDI have been characteristic also to the financial services. Although, in this year two very large acquisitions provided the first peak of inward investments into that sub-sector, several large investments into financial intermediation have also been made in following years. For example, the second peak in 2005 when Hansabank was completely taken over by Swedbank. Transport, storage and communication services have captured investors' interest mostly after 1999 and in very fluctuating manner. In terms of inward FDI stock, the leading position was in 2007 held by financial intermediation, followed closely by real estate, renting and business activities. Third-largest stock characterised foreign investments into manufacturing industries.

In the field of outward FDI, the investments in financial services once again lead the way. First of all these are the investments made by large banks and by their specialised affiliate companies into Latvia and Lithuania. These two countries have been subject to investments from Estonia also in the field of real estate and business activities as well as in transport, storage and communication. Before 2000 the outward FDI from Estonia was very volatile. The large outward investments in one year were followed by net divestments in the next year, for example because of the more difficult business situation. In recent years the patterns have become slightly more stable.

The survey of outward FDI by Estonian FDI recipients (indirect investors) and domestically-owned companies (direct investors) showed that as expected, the inward-outward FDI connections were in 2001 more evident in various service companies than in manufacturing companies. In addition several investors have themselves received FDI in trade sector. In case of financial intermediation the important role of inward-outward connections is illuminated as a support by large owner banks. By 2006 there were more good examples of OFDI also in manufacturing. However, in general terms services are still leading the way.

In order to generalise from a company level comparison, in most cases the mean values of survey responses by the investor groups, indirect and direct investors, were computed. This comparative analysis revealed several advantages of indirect investors in terms of the amounts invested (in 1997, 2000), size of the fixed assets (in 1997, 2000), size of the net sales (in 2005), size of the profits (in 2005), and number of employees per company (in 1997, 2000, 2005). According to these average figures, the indirect investors tend to be larger and better endowed with capital than direct investors. They have also more intensive trade flows between Estonian parent and foreign unit. In terms of the average number of established foreign affiliates, however, the direct investors have taken the lead during the period from 1997-2005.

In terms of investment problems, indirect investors tend to be less constraint by the lack of financial resources and information. However, these differences between two investor groups were clearly evident only in 2001, which might imply growing similarities between foreign-owned and domestic OFDI contributors. The successful transition processes as well as the accession to the EU have both strengthened the capabilities of direct investors.

In terms of OFDI impact on parent company our study revealed that foreign units help especially to increase market share abroad, facilitate exports from parent company, and contribute to the increase of production volume or number of products offered. Last effects have gained in importance over 5 year period.

As far as competitive advantages for making outward FDI are concerned, more indirect investors stressed in 2006 organisational know-how, while direct investors saw especially marketing skills and quality as their main success factors. Both investor groups set high importance also on technological know-how as one of their advantages in making outward foreign investments.

The investigation of outward investment motives lets us to conclude that OFDI has been very market-oriented decision, either to take advantage of the growth opportunities abroad or in order to overcome the disadvantages related to the smallness of Estonia. The cost related motives are as yet far less important than market related motives. In the future the cost motives are likely to gain in importance. By 2006 it was the availability of labour in general and even more so access to qualified labour, which facilitated outward FDI as secondary motive more than cost pressures. It is important to add that solely inward foreign investors set significantly less importance on market related motives than indirect investors making OFDI. This was revealed by preliminary additional study and might in part be explained by the smallness of Estonia as target country.

The results of 2006 survey about future plans showed that respondent companies, several of which were manufacturing companies, tend to use outward FDI as an important complement to their export intentions, whereas foreign ownership might indeed somewhat inhibit companies' foreign expansion. This was revealed by the fact that about 43% of indirect investors did not have set expansion plans for the next 3 years.

The generalisation of these results is restricted by several limitations, most of which were discussed already during the analysis. Naturally, relatively small sample sizes dictate that the results should be interpreted with caution. Despite that, the inter-temporal comparative analysis revealed several interesting influences that stress the importance of inward-outward FDI connections as well as shifts in OFDI determinants in the course of transitions. In following, we discuss some theoretical and managerial implications as well as the policy measures that could help to even more efficiently use the inward investments for facilitation of the outward FDI from Estonia.

In terms of theory development our analysis revealed that indirect investors tend to be better equipped for foreign expansion in terms of resources and capabilities, while their willingness to do so can be considerably influenced by strategic choices of foreign owner. Successful transition processes, home market growth, and regional economic integration can in turn facilitate the catching-up of direct investors. Thus, the differences between two investor groups become less prominent. This is not to say that inward-outward FDI connections lose their importance. From the viewpoint of network theory it is important to gain the position of a strategic inward-outward node rather than dead-end arms-length unit.

Managerially it indicates a need to transfer or build skills, knowledge and competences in the local companies, which would allow becoming and remaining outward gateways to foreign markets even in case of takeover by inward FDI. This capability of being strategic contributor is often vital for indirect FDI to commence unless the inward-outward pattern is the result of solely formal tax considerations. From foreign owners perspective the empowerment of affiliates can offer a balanced solutions against over-centralisation in the dynamic business environment. It is also in line with the supply chain management view, where value creation by smooth networking is set in front of strict corporate control.

The policy measures for enhancing the inward-outward FDI connections could be discussed again on many different levels. From the viewpoint of entire economy it is important to determine the position of Estonian companies in the value chains of regional and global business clusters. In this process there are two opposite trends – diversification and harmonisation. The development priorities should help local companies to diversify themselves from Nordic producers, in order to attract foreign investors, which support additional development and expansion abroad. On the other hand, the business culture and quality standards should become more similar to the traditions in more developed countries, in order to build joint management infrastructure needed for inter-company cooperation. This would also facilitate transition from cost-based partnerships to knowledge-sharing ones.

In the framework of particular investment relations, the success of inward-outward connections is more determined by the strategic aspect of how interested foreign investor is in further foreign expansion of the Estonian affiliate. In this respect, the government and other organisations have several means for stimulating that interest. These range from the facilitation of exports to the well-targeted support for outward FDI via informational and financial provisions.

The third problem field in the context of inward-outward FDI connections relates to the knowledge and resource transfers. The public sector has here a potential for facilitating the inter-company technological transfers. However, this is not a short term process. It involves the facilitated development of local technologies that are complementary to foreign technological solutions, thus creating foreign investors' interest in reciprocal exchange of technologies.

Future research should continue the analysis of inward-outward FDI connections in a more elaborate manner. In addition to comparing indirect investors with direct investors, a closer look on differences between solely inward foreign investors and these making also OFDI can provide interesting insights. Important is also to develop unique methods of data collection specifically targeted for investigation of inward-outward connections more elaborately than just based on ownership ties.

ENDNOTES

This study has been prepared with financial support received from the Estonian Science Foundation (Grants 6493 and 7405) and from the Estonian Ministry of Education and Research (Target Financing SF0180037s08)

REFERENCES:

Altzinger, W., Bellak, C., Jacklič, A. and Rojec, M. (2003) 'Direct versus Indirect Foreign Investment from Transition Economies: Is there a difference in parent company/home country impact?', In: *Facilitating Transition by Internationalization: Outward Direct Investment from Central European Economies in Transition*, Svetličič, M.; Rojec, M. (eds.), pp. 133-154, Ashgate Publishing Limited

Baltagi, B. H., Egger, P. and Pfaffermayr, M. (2007) 'Estimating Models of Complex FDI: Are There Third-Country Effects?', *Journal of Econometrics*, 140(1), pp. 260-281.

Bank of Estonia (2008) [www document] <http://www.eestipank.info/pub/en/dokumendid/statistika/> (accessed 26. June 2008)

Barry, F., Görg, H. and McDowell, A. (2003) 'Outward FDI and the Investment Development Path of a Late-industrializing Economy: Evidence from Ireland', *Regional Studies*, 37(4), pp. 341-349.

Bartlett, C. A., and Ghoshal, S. (1986) 'Tap Your Subsidiaries for Global Reach', *Harvard Business Review*, 64(6), pp. 87-94.

Birkinshaw, J. M. and Morrison, A. J. (1995) 'Configurations of and Structure in Subsidiaries of Multinational Corporations', *Journal of International Business Studies*, 26(4), pp. 729-753.

Braunerhjelm, P., Oxelheim, L. and Thulin, P. (2005) 'The Relationship between Domestic and Outward Foreign Direct Investment: The Role of Industry-Specific Effects' *International Business Review*, 14(6), pp. 677-694.

Brouthers, L.E., Werner, S. and Wilkinson, T.J. (1996) 'The Aggregate Impact of Firms' FDI Strategies on the Trade Balances of Host Countries', *Journal of International Business Studies*, 27(2), pp. 359-373.

Buckley, P. (1988) 'The Limits of Explanation: Testing the Internalization Theory of Multinational Enterprise', *Journal of International Business Studies*, 19(2), pp. 181-193.

Canyon, M. J., Girma, S., Thompson, S. and Wright, P. W. (2002) 'The Productivity and Wage Effects of Foreign Acquisition in the United Kingdom', *Journal of Industrial Economics*, 50(1), pp. 85-105.

Damijan, J. P., Polanec, S. and Prašnikar, J. (2007) 'Outward FDI and Productivity: Micro-evidence from Slovenia', *World Economy*, 30(1), pp. 135-155.

Dunning, J. (1981) 'Explaining the International Direct Investment Position of Countries – In Support of the Eclectic Theory of International Production', In: *Multinationals from Developing Countries*, Kumar, K.; McLeod, M. G. (eds.), pp.1-22, Lexington Books, Lexington,

Egger, P. (2008) 'On the Role of Distance for Outward FDI', *Annals of Regional Science*, 42(2), pp. 375-389.

Erickson, C. L. and Kuruvilla, S. (1994) 'Labor Costs and the Social Dumping Debate in the European Union' *Industrial & Labor Relations Review*, 48(1), pp. 28-47.

Ericsson, J. and Irandoust, M. (2000) 'On the Causality Between Foreign Direct Investment and Output: A Comparative Study', *International Trade Journal*, 14(4), pp. 1-26.

Estonian Development Fund (2008) [www document] <http://www.arengufond.ee/index.php?s=avaleht&lang=en> (accessed 26. June 2008)

"Foreign Investor 2000" (2001) Survey Data, University of Tartu, Estonian Investment Agency

Gelbuda, M., Starkus, A., Tamasevicius, V. and Zidonis, Z. (2003) 'Learning in the Internationalization Process: A Case for Organisational Identity and Interpretive Capacity', *Proceedings of the 7th Vaasa Conference on International Business*, University of Vaasa (CD edition).

Gorynia, M., Nowak, J. and Wolniak, R. (2007) 'Poland and Its Investment Development Path', *Eastern European Economics*, 45(2), pp. 52-74.

Gupta, A. K. and Govindarajan, V. (1991) 'Knowledge Flows and the Structure of Control within Multinational Corporations', *Academy of Management Review*, 16(4):768-792.

Head, K. and Ries, J. (2008) 'FDI as an Outcome of the Market for Corporate Control: Theory and Evidence', *Journal of International Economics*, 74(1), pp. 2-20.

Herzer, D. and Schrooten, M. (2008) 'Outward FDI and Domestic Investment in Two Industrialized Countries', *Economics Letters*, 99(1), pp. 139-143.

Homepage of Merko (2008) [www document] <http://www.merko.ee> (accessed 26. June 2008).

Homepage of Reval Hotels (2008) [www document] <http://www.revalhotels.com> (accessed 26. June 2008)

Kaminski, B. and Smarzynska, B. K. (2001) 'Integration into Global Production and Distribution Networks through FDI: The Case of Poland', *Post-Communist Economics*, 13(3), pp. 265-288.

Korhonen, H. (1999) 'Inward-Outward Internationalization of Small and Medium Enterprises' PhD. Dissertation, *Acta Universitatis Helsingiensis*, A-147.

Leahy, D. and Montagna, C. (2000) 'Temporary Social Dumping, Union Legalisation and FDI: A Note on the Strategic Use of Standards', *Journal of International Trade & Economic Development*, 9(3), pp. 243-259.

Lee, G. (2006) 'The Effectiveness of International Knowledge Spillover Channels', *European Economic Review*, 50(8), pp. 2075-2088.

Leichenko, R. M. and Erickson, R. A. (1997) 'Foreign Direct Investment and State Export Performance', *Journal of Regional Science*, 37(2), pp. 307-329.

Liu, X., Wang, C and Wei, Y. (2001) 'Casual Links between Foreign Direct Investment and Trade in China', *China Economic Review*, pp. 190-202.

Love, J. H. (2003) 'Technology Sourcing versus Technology Exploitation: An Analysis of US Foreign Direct Investment Flows', *Applied Economics*, 35(15), pp. 1667-1678.

Luostarinen, R. and Hellman, H. (1994) 'The Internationalization Processes and Strategies of Finnish Family Firms', *CIBR Working Papers*, Y-1, Center for International Business Research – CIBR, Helsinki.

Martinez, J. I. and Jarillo, J. C. (1991) 'Coordination Demands of International Strategies', *Journal of International Business Studies*, 22(3), pp. 429-444.

Masso, J. Varblane, U. and Vahter, P. (2008) 'The Impact of Outward FDI on Home-Country Employment in a Low-Cost Transition Economy', *Eastern European Economics*, (forthcoming) Nov-Dec issue

Milder, M. (2002) 'Influence Factors of the Internationalization of Estonian Companies (CEO of Baltika Group)', *Author's interview*, Tallinn

Neivelt, I. (2002) 'Influence Factors of the Internationalization of Estonian Companies (CEO of Hansabank Group)', *Author's interview*, Tallinn

Okubo, T. (2007) 'Intra-industry Trade, Reconsidered: The Role of Technology Transfer and Foreign Direct Investment', *World Economy*, 30(12), pp. 1855-1876.

Osula, H. (2002) 'Influence Factors of the Internationalization of Estonian Companies (CEO of Mootorreisi Group)', *Author's interview*, Tallinn

Pradhan, J. P. (2004) 'The Determinants of Outward Foreign Direct Investment: A Firm-level Analysis of Indian Manufacturing.', *Oxford Development Studies*, 32(4), pp. 619-639.

Statistical Office of Estonia (2008) [www document] <http://www.stat.ee> (accessed 26. June 2008)

Sun, H. (1999) 'Impact of FDI on Foreign Trade of China', *Journal of Asia Pacific Economy*, 4 (2), pp. 317-339.

Svetličič, M., Jacklič, A. and Burger, A. (2007) 'Internationalization of Small and Medium-Size Enterprises from Selected Central European Economies', *Eastern European Economics*, 45(4), pp. 36-65.

Tadesse, B. and Ryan, M. (2004) 'Host Market Characteristics, FDI, and The FDI - Trade Relationship', *Journal of International Trade & Economic Development*, 13(2), pp. 199-229.

The Survey of Estonian Outward FDI (2001) Survey Data, University of Tartu, Estonian Investment Agency

Tsai, P.-L. and Huang, C.-H. (2007) 'Openness, Growth and Poverty: The Case of Taiwan', *World Development*, 35(11), pp. 1858-1871.

Varblane, U., Reiljan, E. and Roolaht, T. (2003) 'The Role of Outward Foreign Direct Investments In The Internationalization of Estonian Firms', In: *Facilitating Transition by Internationalization: Outward Direct Investment from Central European Economies in Transition*, Svetličič, M.; Rojec, M. (eds.), pp. 133-154, Ashgate Publishing Limited

Vissak, T. (2001) 'The Impact of Foreign Direct Investments on Host Country's Exports', in U. Varblane (ed.), *Foreign Investments in the Estonian Economy*, Tartu: Tartu University Press, pp. 269–306.

Welch, L.S. and Luostarinen, R. (1988) 'Internationalization: Evolution of a Concept', *Journal of General Management*, 14(2), pp. 34–57.

Welch, L. and Luostarinen, R. (1993) 'Inward–outward Connections in Internationalization' *Journal of International Marketing*, 1(1), pp. 44–56.

Wereza, M. (2001) 'The Impact of Foreign Direct Investment on Poland's Trade with the European Union', *Post-Communist Economies*, 13(1), pp. 71-83.

Williamson, O. E. (1994) 'Research Needs and Opportunities in Transaction Cost Economics', *Journal of the Economics of Business*, 1(1), pp. 45–46.

Williamson, O. E. (1975) *Markets and Hierarchies: Analysis and Antitrust Implications*. New York, Free Press.

WIR – The World Investment Report 2007: Transnational Corporations, Extractive Industries and Development, United Nations Conference on Trade and Development (UNCTAD), New York, Geneva p. 323

Ärm, M. (2002) 'Influence Factors of the Internationalization of Estonian Companies (Executive Director of CV Online Estonia)', *Author's interview*, Tallinn

Appendix 1: Estonian inward and outward FDI flows in 1994-1996

Millions of euros	1994			1995			1996		
	Inward	Outward	O/I	Inward	Outward	O/I	Inward	Outward	O/I
x- Not to be disclosed									
Agriculture, hunting and forestry	2.38			-1.78			-6.08		
Fishing	0.05			x			-0.14	x	
Mining and quarrying	-0.02			x			0.45	x	
Manufacturing	94.64		0.002	59.97	-0.43	0.74	31.72	-2.95	9.31
Electricity, gas and water supply	x			1.18			-1.09		
Construction	1.16			0.36	-0.04	1.04	2.49	-0.05	2.03
Wholesale and retail trade	28.01	-0.42	1.51	52.60	-1.29	2.45	57.18	0.46	0.8
Hotels and restaurants	2.49			4.05			3.75		
Transport, storage and communication	33.20			20.50	-0.20	0.97	14.39	-16.34	113.6
Financial intermediation	5.59	x		9.33	x		1.65	-11.05	670.2
Real estate, renting and business activities	4.71	x		3.39	0.29	8.68	8.10	-0.70	8.6
Public administration and defence; compulsory social security	x						x	x	
Education	0.05			-0.01			0.05		
Health and social work	0.00			-0.49			x		
Other community, social and personal service activities	0.06			2.02	x		2.88	x	
Not classified	6.88	-1.92	27.88	-3.46	0.05	1.40	0.39	x	
TOTAL	180.18	-1.90	1.06	147.82	-1.86	1.26	115.96	-30.97	26,7

*Outward FDI flows divided by inward FDI flows in percents

Source: Bank of Estonia

Appendix 2: Estonian inward and outward FDI flows in 1997-1999

Millions of euros	1997			1998			1999		
	Inward	Outward	O/I*	Inward	Outward	O/I	Inward	Outward	O/I
x- Not to be disclosed									
Agriculture, hunting and forestry	0.12	x		6.73	x		8.74	x	
Fishing	-0.14	x		0.14			0.72		
Mining and quarrying	0.49			3.05			0.93		
Manufacturing	79.10	-12.95	16.4	98.74	2.71	2.8	73.20	-20.92	28.6
Electricity, gas and water supply	5.15			8.04			16.80	x	
Construction	4.01	-0.87	21.7	10.30	0.27	2.6	1.58	0.31	19.8
Wholesale and retail trade	35.34	-4.76	13.5	60.19	-11.41	19	28.31	-0.34	1.2
Hotels and restaurants	4.95	x		2.38	x		2.65	x	
Transport, storage and communication	55.01	-20.80	37.8	19.15	24.93	130	68.74	2.35	3.4
Financial intermediation	39.90	-70.79	177	275.38	-20.29	7.4	58.13	-55.36	95.2
Real estate, renting and business activities	10.73	-11.26	105	27.09	-0.58	2.1	16.80	-5.33	31.7
Public administration and defence; compulsory social security	x						x	x	
Education	-0.04			-0.02			0.05		
Health and social work	x			-0.02			x		
Other community, social and personal service activities	-0.29	-0.56	190	3.39	x		3.81	0.11	2.9
Not classified	1.78	-0.04	2.5	1.44	-0.26	17.9	3.64	-0.10	2.8
TOTAL	236.10	-122.26	51.8	515.86	-5.22	1	284.28	-79.24	27.9

*Outward FDI flows divided by inward FDI flows in percents

Source: Bank of Estonia

Appendix 3: Estonian inward and outward FDI flows in 2000-2002

Millions of euros	2000			2001			2002		
	Inward	Outward	O/I*	Inward	Outward	O/I	Inward	Outward	O/I
x- Not to be – No data disclosed									
Agriculture, hunting and forestry	4.21	x		-2.01	x		-6.02	-0.85	14.1
Fishing	-0.14			0.07	x		x	x	
Mining and quarrying	4.44	x		2.79	x		1.78	x	
Manufacturing	70.35	-18.27	26	93.70	-39.49	42.2	54.83	6.07	11.1
Electricity, gas and water supply	12.33	x		136.37	x		-34.39	x	
Construction	12.60	-1.33	10.6	17.13	-1.83	10.7	18.14	-2.23	12.3
Wholesale and retail trade	26.90	3.25	12.1	94.86	-4.67	4.9	63.18	-12.06	19.1
Hotels and restaurants	17.22	-0.14	0.83	5.82	x		1.39	-3.86	277
Transport, storage and communication	66.84	-4.83	7.2	63.94	-28.58	44.7	28.81	-58.39	202
Financial intermediation	112.29	3.69	3.3	127.55	-121.98	95.6	115.19	-39.86	34.6
Real estate, renting and business activities	79.84	-47.91	60	46.45	-26.82	57.7	51.21	-28.75	56.1
Public administration and defence; compulsory social security	x			0.77	-		x	-	
Education	-0.01			0.56	-		0.03	x	
Health and social work	x			0.84	-		0.03	0	
Other community, social and personal service activities	16.47	-0.47	2.8	11.71	-1.04	8.8	0.68	0.002	0.29
Not classified	1.29			2.10	x		12.22	x	
TOTAL	424.66	-66.67	15.7	602.66	-225.50	37.4	306.79	-139.86	45.6

*Outward FDI flows divided by inward FDI flows in percents

Source: Bank of Estonia

Appendix 4: Estonian inward and outward FDI flows in 2003-2005

Millions of euros	2003			2004			2005		
	Inward	Outward	O/I*	Inward	Outward	O/I	Inward	Outward	O/I
x- Not to be – No data disclosed									
Agriculture, hunting and forestry	3.60	-2.29	63.6	0.91	0.25	27.5	15.20	2.82	18.6
Fishing	3.47	x		-1.58	x		x	-0,01	
Mining an quarrying	5.35	x		4.75	x		4.27	x	
Manufacturing	102.27	-3.99	3.9	177.45	-13.18	7.4	190.06	-16.74	8.8
Electricity, gas and water supply	4.51	0.22	4.9	-4.16	-0.15	3.6	-13.99	x	
Construction	17.78	-1.90	10.7	5.38	-20.28	376	19.27	-16.99	88.2
Wholesale and retail trade	293.26	-24.94	8.5	145.02	-11.95	8.2	55.28	-43.95	79.5
Hotels and restaurants	16.92	x		5.34	-0.30	5.6	-12.52	-1.46	11.7
Transport, storage and communication	58.63	-35.74	61	20.61	-10.24	49.7	-0.29	-36.67	126
Financial intermediation	121.14	-60.89	50.3	159.22	-106.81	67.1	1978.52	-287.59	14.5
Real estate, renting and business activities	185.86	-7.14	3.8	251.33	-50.33	20	-23.66	-81.70	345
Education	0.02	-0.01	50	0.06	0.06	100	x	-0.47	
Health and social work	0.51	-0.03	5.9	-0.91	-0.01	1.1	-0.61	0	
Other community, social and personal service activities	4.64	0.21	4.5	5.48	-2.53	46.2	5.50	-23.42	425
Not classified	4.30	0.27	6.3	6.23	-1.10	17.7	7.94	-1.02	12.8
TOTAL	822.24	-137.36	16.7	775.13	-216.57	27.9	2254.49	-507.43	22.5

*Outward FDI flows divided by inward FDI flows in percents

Source: Bank of Estonia

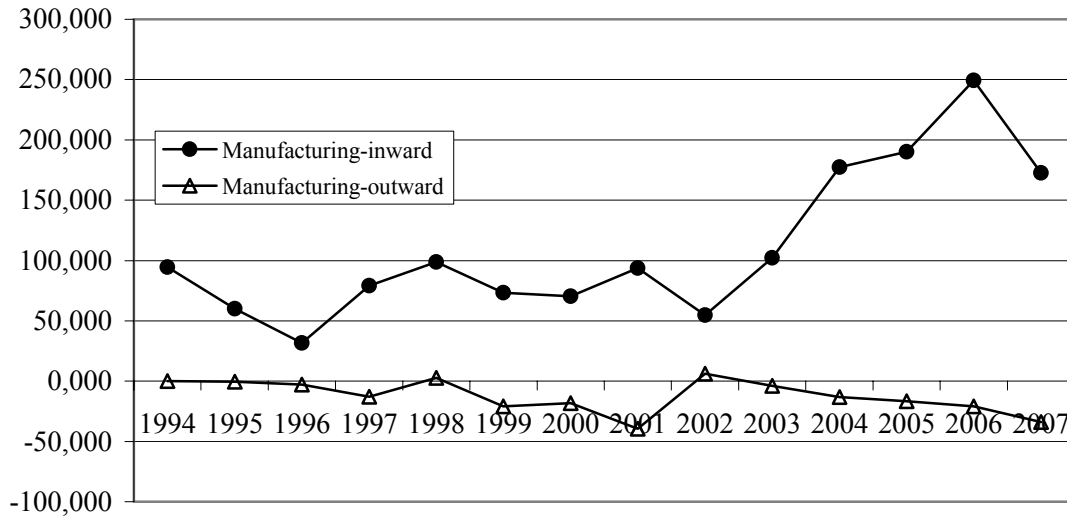
Appendix 5: Estonian inward and outward FDI flows in 2006-2007

Millions of euros	2006			2007		
	Inward	Outward	O/I*	Inward	Outward	O/I
x- Not to be – No data disclosed						
Agriculture, hunting and forestry	11.41	-1.83	16	18.25	-1.12	6.1
Fishing	-0.94	0.02	2.1	x	x	
Mining and quarrying	6.74	x		5.24	0	
Manufacturing	249.33	-20.79	8.3	172.48	-34.02	19.7
Electricity, gas and water supply	31.36	-15.47	49.3	-9.01	3.8	42.2
Construction	50.26	1.78	3.5	58.94	-23.81	40.4
Wholesale and retail trade	12.04	-92.49	768	345.07	-94.16	27.3
Hotels and restaurants	-6.35	-0.68	10.7	-11.49	-0.30	2.6
Transport, storage and communication	110.77	-42.76	38.6	-60.62	-96.25	158
Financial intermediation	784.73	-324.19	41.3	969.98	-539.37	55.6
Real estate, renting and business activities	67.19	-349.61	520	310.76	-318.59	102
Education	-0.24	7.02	2925	-0.16	0.06	37.5
Health and social work	0.05	x		-10.09	x	
Other community, social and personal service activities	21.97	-15.66	71.3	14.26	-9.19	64.5
Not classified	2.67	-21.15	792	8.45	-9.05	107
TOTAL	1340.98	-876.04	65.3	1815.3	-1123.1	61.9

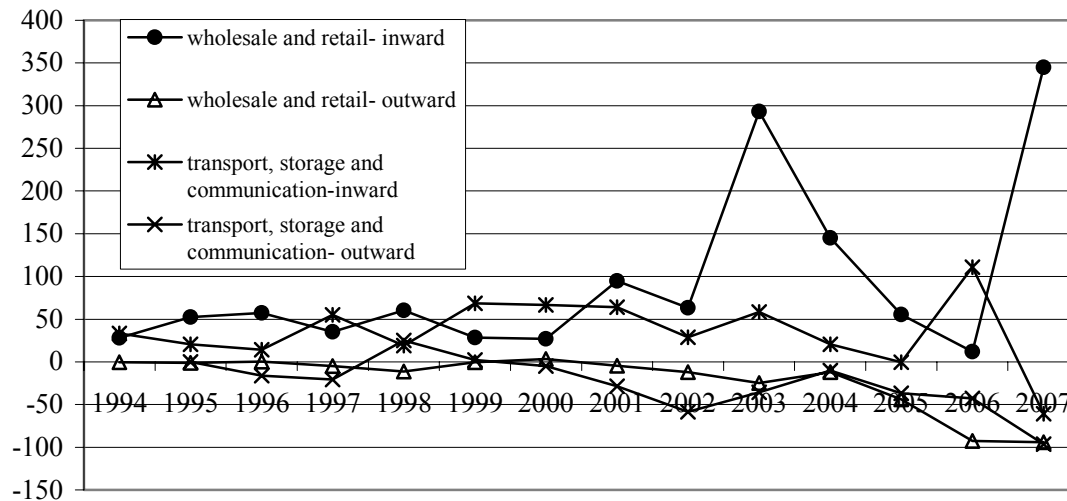
*Outward FDI flows divided by inward FDI flows in percents

Source: Bank of Estonia

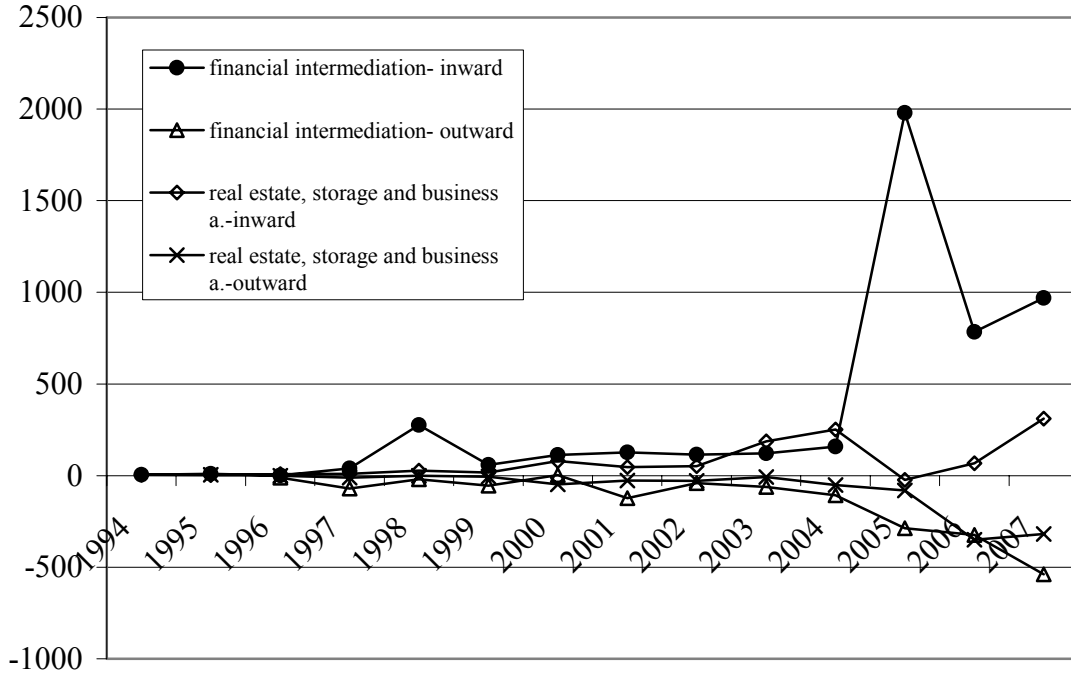
Appendix 6: Estonian inward and outward FDI flows in Manufacturing 1994-2007 – in millions of euros (Source: Bank of Estonia)



Appendix 7: Estonian inward and outward FDI flows in wholesale and retail, and in transport, storage and communication 1994-2007 – in millions of euros (Source: Bank of Estonia)



Appendix 8: Estonian inward and outward FDI flows in financial intermediation; and in real estate, renting and business activities 1994-2007 – in millions of euros (Source: Bank of Estonia)



Appendix 9: Estonian inward FDI into manufacturing by industry types 1995-2000 – in thousands of euros (Source: Statistical Office of Estonia)

	1995	%	1996	%	1997	%
Food, beverages and tobacco products	42819	26.9	28858	19.0	33559	18.6
Textile	4185	2.6	10164	6.7	20109	11.2
Wearing apparel, dressing and dyeing of fur	1319	0.8	596	0.4	829	0.5
Tanning and dressing of leather and leather products	5528	3.5	7317	4.8	5633	3.1
Wood and wood products	8397	5.3	4977	3.3	7902	4.4
Pulp, paper and paper products	15432	9.7	15402	10.1	18180	10.1
Publishing, printing and reproduction of recorded media	1004	0.6	2589	1.7	3271	1.8
Chemicals, chemical products, refined petroleum and oil-shale products	38727	24.3	43922	28.9	47219	26.2
Rubber and plastic products	1235	0.8	1220	0.8	2182	1.2
Other non-metallic mineral products	24278	15.2	20496	13.5	20423	11.3
Metals and metal products	2178	1.4	2416	1.6	1132	0.6
Machinery and equipment not elsewhere classified	1611	1.0	1633	1.1	1225	0.7
Electrical and optical equipment	9155	5.7	8062	5.3	8384	4.7
Transport equipment	978	.6	2432	1.6	6903	3.8
Furniture and manufacturing not elsewhere classified	2449	1.5	2689	1.8	3112	1.7
Manufacturing in total	159294	100.0	151982	100.0	180062	100.0
	1998	%	1999	%	2000	%
Food, beverages and tobacco products	52904	24.7	32931	14.8	55294	25.9
Textile	21662	10.1	22327	10.1	22580	10.6
Wearing apparel, dressing and dyeing of fur	1617	0.8	3662	1.6	7589	3.5
Tanning and dressing of leather and leather products	6123	2.9	5936	2.7	6204	2.9
Wood and wood products	8557	4.0	13538	6.1	17417	8.1
Pulp, paper and paper products	18180	8.5	18180	8.2	18552	8.7
Publishing, printing and reproduction of recorded media	4496	2.1	1848	0.8	1792	0.8
Chemicals, chemical products, refined petroleum and oil-shale products	48850	22.8	54416	24.5	11959	5.6
Rubber and plastic products	2146	1.0	3925	1.8	4707	2.2
Other non-metallic mineral products	27647	12.9	35204	15.9	33094	15.5
Metals and metal products	1189	0.6	2099	0.9	1398	0.7
Machinery and equipment not elsewhere classified	1360	0.6	1938	0.9	1863	0.9
Electrical and optical equipment	9798	4.6	11476	5.2	12085	5.7
Transport equipment	6903	3.2	8297	3.7	13450	6.3
Furniture and manufacturing not elsewhere classified	3042	1.4	6200	2.8	5810	2.7
Manufacturing in total	214474	100.0	221976	100.0	213794	100.0

Appendix 10: Estonian inward FDI into manufacturing by industry types 2001-2006 – in thousands of euros (Source: Statistical Office of Estonia)

	2001	%	2002	%	2003	%
Food, beverages and tobacco products	42503	19.7	42856	19.4	43961	20.3
Textile	32189	14.9	32086	14.5	27504	12.7
Tanning and dressing of leather and leather products	.	.	6156	2.8	6161	2.8
Wood and wood products	21979	10.2	23280	10.5	18680	8.6
Pulp, paper and paper products; publishing	21592	10.0	21882	9.9	22325	10.3
Chemicals, chemical products, refined petroleum and oil-shale products	11989	5.5	13235	6.0	13527	6.2
Rubber and plastic products	4914	2.3	5177	2.3	2447	1.1
Other non-metallic mineral products	36030	16.7	36117	16.4	39327	18.1
Metals and metal products	1640	0.8	1572	0.7	1298	0.6
Machinery and equipment not elsewhere classified	2356	1.1	2521	1.1	2088	1.0
Electrical and optical equipment	12831	5.9	13780	6.2	16493	7.6
Transport equipment	13433	6.2	13390	6.1	14112	6.5
Furniture and manufacturing not elsewhere classified	8600	4.0	8601	3.9	8951	4.1
Manufacturing in total	216237	100.0	220685	100.0	216926	100.0
	2004	%	2005	%	2006	%
Food, beverages and tobacco products	44839	19.2	52194	21.3	58663	23.5
Textile	27615	11.8	27638	11.3	25631	10.3
Tanning and dressing of leather and leather products	366	0.2	336	0.1	305	0.1
Wood and wood products	28182	12.1	30406	12.4	30607	12.3
Pulp, paper and paper products, publishing	24916	10.7	25322	10.3	27580	11.0
Chemicals, chemical products, refined petroleum and oil-shale products	19756	8.5	23522	9.6	23673	9.5
Rubber and plastic products	3913	1.7	4362	1.8	4826	1.9
Other non-metallic mineral products	38190	16.4	34611	14.1	34248	13.7
Metals and metal products	8463	3.6	10286	4.2	10151	4.1
Machinery and equipment not elsewhere classified	2762	1.2	2800	1.1	3371	1.4
Electrical and optical equipment	10684	4.6	13016	5.3	9878	4.0
Transport equipment	14230	6.1	14121	5.8	14136	5.7
Furniture and manufacturing not elsewhere classified	9004	3.9	5550	2.3	6512	2.6
Manufacturing in total	233567	100.0	244810	100.0	249650	100.0