

DIFFERENCES BETWEEN INWARD-OUTWARD FDI AND INWARD FDI IN THE CONTEXT OF ESTONIA

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ABSTRACT

The aim of this paper is to determine the differences between inward-outward FDI providers and solely inward FDI recipients in Estonia. The analysis is based on two surveys of foreign investors, both of which took place in 2006, as well as on the secondary data about country and industry level inward and outward FDI. The country level results of Estonia indicate that the role of outward FDI has grown especially in new millennium. The financial intermediation sector is dominating inward and outward FDI flows on industry level. The survey data analysis revealed that inward-outward foreign investors in Estonia are on average larger (in terms of both - net sales and employee numbers), more profitable, less autonomous, and less satisfied with certain aspects of business environment than solely inward foreign investors. These results could be at least partially attributed to the higher participation of inward-outward investors in the international networks.

KEYWORDS: inward-outward FDI, transition economy, comparative analysis

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INTRODUCTION

The transition of post-socialist countries to the market-based economies has been described by considerable inflows of capital in the form of foreign direct investments (FDI). Unlike locals, foreign investors had added benefit of long term experience in market functioning as well as often superior business knowledge and technology. In the 90s large multinational companies and also smaller western companies expanded into several transition economies.

Some 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 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.

The paper aims to determine the differences between inward-outward FDI providers and solely inward FDI recipients in Estonia. The study relies upon two surveys of foreign investors. Most recent surveys of outward and inward FDI took place in 2006.

The paper starts with a theoretical discussion about relationships between inward FDI and outward FDI. After the theoretical overview we introduce data and methodology. The next 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 with inward FDI on an example of foreign-owned Estonian companies. This discussion is predominantly based on the surveys of outward and inward FDI concerning Estonia, which were conducted on 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

There is a fast-growing stream of research about the determinants of FDI. Some of them take a holistic view (see for example Ang, 2008; Bitzenis, 2008; Pusterla and Resmini, 2007; Kimino et al., 2007). Others investigate the impact of tax levels on FDI (Azémar and Delios, 2008; Wijeweera et al., 2007), the influence of exchange rates (Russ, 2007), and the relationship between labour costs and FDI (Bellak et al., 2008). There are also contributions about the impact of institutional determinants (Bénassy-Quéré et al., 2007) and investment promotion efforts (Lim, 2008) on FDI. Kolstad and Villanger (2008) study the determinants of FDI in the context of services. Thus, the rationale behind inward FDI has a good theoretical basis.

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). Pantelidis and Kyrkilis (2005) as well as Pradhan (2004) have analysed the determinants of outward FDI. There are also studies about the impact of outward FDI on domestic investment (Herzer and Schrooten, 2008; Braunerhjelm et al., 2005), on home-country employment (Masso et al. 2008), on productivity (Damijan et al., 2007), on poverty (Tsai and Huang, 2007), and on knowledge spill-over (Lee, 2006). Inward-outward FDI flows have been modelled from a corporate control perspective as well (Head and Ries, 2008). Love (2003) analyses the outward FDI as a tool for technology sourcing, while Gorynia et al. (2007) and Barry et al. (2003) 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 are still under-investigated. Apergis (2008) did not find any significant long-run connections of such FDI.

The descriptions of some inward-outward FDI connections can be found in internalisation literature (Buckley, 1988; Williamson, 1975, 1994), in concepts describing intra-corporate relations (Bartlett and Ghoshal, 1986; Martinez and Jarillo, 1991; Gupta and Govindarajan, 1991; Birkinshaw and Morrison, 1995) and in inward-outward internationalisation discussion (Welch and Luostarinen, 1993; Luostarinen and 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 instead of 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 the 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 and Ghoshal, 1986). Foreign affiliates could be described as autonomous, receptive, and active (Martinez and Jarillo, 1991). The inter-subsidiary information flows are described as incoming or outgoing (Gupta and Govindarajan, 1991) and situations highlighted where subsidiaries are assigned elaborate authorities over products or activities (Birkinshaw and Morrison, 1995).

A more general view about possible inward-outward connections is offered by Finnish School (Welch and 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.

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.

The FDI related technology and knowledge transfers are 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 on 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. Thus, the upward pressure to wages, imposed by

foreign capital, can impact the increase in outward FDI. Yet, as shown by Bellak et al. (2008) labour costs are unlikely to be the main motivation behind outward FDI.

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. 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. The foreign positions established by domestic company attract foreign investors. Freeman and Reid (2006) in turn explain the constraints of small western investors in CEE.

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.

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.

DATA AND RESEARCH METHODS

The following empirical section is based on survey data as well as on statistics from the Bank of Estonia and from the Statistical Office of Estonia. The primary survey data was

collected in late 2006. Inward-outward connections of FDI into and from Estonia were analysed using the survey of outward FDI made by Estonian companies, conducted in cooperation of University of Tartu and the promotion agency Enterprise Estonia. The questionnaire included also questions about the amount of FDI received by the investing companies. The questionnaires were filled during face-to-face meetings. Answers revealed that from 38 respondents 21 companies had received foreign capital and 17 companies could be denoted as entirely domestic companies. In addition to the survey of outward FDI, similar survey was also done about inward FDI respondents. This dataset contains 75 respondents. 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, the Statistical Office of Estonia, and the 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. Even this relatively basic primary data analysis should help to describe the differences between inward-outward FDI and inward FDI.

THE CHANGES IN THE ROLE OF 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 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)

Such a high level of inward FDI can be partially explained by the nature of Estonian privatisation process, which aimed at finding strategic investors as majority owners from abroad instead of selling companies to their employees or to general public. Although some privatisation deals were seen as controversial, in general this policy clearly facilitated the inflow of FDI.

**** Table 1 here ****

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.

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), because foreign production becomes more efficient than domestic. 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. Although the increasing cost might not be the most explicit expansion motive, implicitly the increasing management complexities in Estonia provide still strong case for considerable outward expansion.

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 to 62 %. It is a sign about the rather rapid equalisation inward outward flows (Bank of Estonia, 2008).

**** Figure 1 here ****

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).

**** Figure 2 here ****

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.

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 comparison of inward-outward FDI and inward FDI based on business practice of foreign-owned 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.

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% (Statistical Office of Estonia, 2008). These investments were at least to some extent related to the privatisation process.

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 (Statistical Office of Estonia, 2008). 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 (Statistical Office of Estonia, 2008). 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 (Bank of Estonia, 2008). 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 (Bank of Estonia, 2008). 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 (Bank of Estonia, 2008). 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 (Bank of Estonia, 2008). 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 (Bank of Estonia, 2008). In other industries 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 (Bank of Estonia, 2008). 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 new wave of growth started and annual OFDI reached to the 225.5 million euros (Bank of Estonia, 2008). 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 (Bank of Estonia, 2008).

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 (Bank of Estonia, 2008). 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 (Bank of Estonia, 2008).

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 (Bank of Estonia, 2008).

In manufacturing industries, the periods of outward investments have been exchanging with a periods of divestments (Bank of Estonia, 2008). 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 (Bank of Estonia, 2008). Somewhat similar tendency, 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 might be an indication of these companies sensitivity to the developments in economy. 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. The ratios of outward FDI flows to inward FDI flows are shown in Figure 3. In cases when this ratio exceeds 100% there is a net annual outflow of FDI in the particular industry.

**** Figure 3 here ****

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. As said above, these inward-outward FDI cases reflect the situation where successful outward expansion of domestic bank attracted inward FDI from larger foreign bank. Thus, somewhat unusually outward FDI commenced prior to the inward FDI, because in case of Hansabank major expansion to Latvia took place already in 1996.

Very active outward investor has also been BLRT Group, with its major acquisitions of Klaipeda Shipyard in 2001 and Turku 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.

However, it has to be said, that with the exceptions Stora Enso Timber and perhaps Reval Hotel Group, management and expansion decisions of these case companies have been made predominantly by Estonian counterpart rather than by foreign owners. Yet, there are clear signs that in most of these companies foreign owners tend to revise such role distribution after they have accumulated sufficient market experiences.

For example, in case of Stora Enso Timber the centralised coordination procedures were established shortly after the major inward investments into formerly domestic wood processing company. At present, this corporate rearrangements have led to the decision to

close down two sawmills in Estonia in order to streamline Stora Enso's worldwide activities towards higher regional efficiency and profitability.

INWARD-OUTWARD FDI VS SOLELY INWARD FDI IN ESTONIAN CONTEXT

This section is predominantly based on two surveys of investors. The general characteristics of data were introduced above. Here we offer some additional details about the nature of investigated companies. As can be seen from table 2, both surveys had comparable share of respondents from manufacturing sector. The survey of inward FDI includes, however, relatively more trading companies and among financial service companies several insurance firms.

**** Table 2 here ****

Table 2 reveals also that inward-outward investors have on average larger net sales and profits than solely inward investors. They also employ on average considerably more people in comparison to inward counterparts. Inward-outward investors export slightly less intensively as well. This can be partially explained by usage of outward FDI as an alternative or at least supplementary entry method. These foreign-owned OFDI contributors have on average somewhat less concentrated ownership ties and more diversified origin landscape than that of inward FDI (see again Table 2). Although the average establishment time can be considerably influenced by few very old companies, we can say with caution that inward-outward investors seem to target slightly younger Estonian companies.

The most prominent differences between two investor groups that were revealed by survey responses concern descriptions of autonomy in making various decisions (see Table 3). While both investor groups render the highest autonomy to Estonian unit in the field of

personnel management (followed by advertising, market research, and the selection of marketing channels), there are several significant differences in average scores. The significance of differences was tested using single factor ANOVA analysis in MS Excel.

**** Table 3 here ****

Solely inward FDI recipients have significantly more control over strategic management and planning, production, finance, R&D, product innovations, and logistics (see Table 3). Somewhat less significant differences are revealed in relation to pricing, decision making about the FDI, advertising, and exports. Although decisions about making FDI to other countries are least autonomous for Estonian companies in both investor groups, even here inward FDI recipients claim to have on average higher control than inward-outward investors. To generalise, we can conclude that the Estonian companies with inward-outward FDI linkages have in several fields of decision-making significantly less autonomy than the inward FDI recipient companies.

The ANOVA analysis of survey responses concerning other aspects revealed only few significant differences between inward-outward and inward investors. These differences are summarised in Table 4.

**** Table 4 here ****

The market presence and growth are significantly more important motives for FDI among the inward-outward investors than for the solely inward investors. The inward investors set more importance on the access to qualified labour than on market access. Slightly less significant difference characterises the higher importance of access to raw materials for inward-outward FDI contributors, whereas low cost labour motivates more solely inward FDI (see Table 4).

Both investor groups evaluate the scarcity of available skilled labour in Estonia, the quality of company's labour force, and the weakness of vocational education system as the most important problems constraining further expansion and development. It turned out that inward-outward oriented investors are also more demanding toward the investment climate of the host country compared with the inward oriented investors. The significant differences in evaluations were identified in relation to the lack of state aid and to the difficulties with getting work and living permits. It could be explained by different needs and expectations of the investigated investor groups. Outward orientation poses additional financial and informational challenges, which set also higher expectations on public-private cooperation.

Although both groups evaluated on average that the weakness of continuing education system is an important problem, in this case the evaluations given by inward investors had much higher standard deviation than these of inward-outward investors. (see again details in Table 4)

The data analysis indicated that most important knowledge transfers concern product and process development know-how or marketing know-how, followed by management know-how, and brand sharing rights. Single identified weakly significant difference between investors groups concerns in turn currently least important object of transfers, namely patented technology. This object of transfers is slightly more important for solely inward investors (see Table 4). They favour intranet and possibilities of inter-company databases also slight more than inward-outward group, although in this case the significance of difference is very low.

The analysis showed that both investor groups see the teamwork between employees of different subsidiaries and the training of Estonian subsidiary employees in other subsidiaries as the two most important channels of knowledge transfer. There were no statistically significant differences in opinions concerning these main channels.

CONCLUSIONS AND DISCUSSION

In this paper we investigated the differences between inward-outward FDI and solely inward FDI in Estonian context. Although there is a fast-growing stream of literature concerning the determinants of FDI, the theoretical analysis of inward-outward FDI connections is still in the relatively infant state. Therefore we used also more general approaches 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.

The country level analysis of FDI revealed that the role of outward FDI has grown especially in new millennium. In 2000 the ratio of OFDI stock to Estonian GDP was only 4.7 %, but in 2007 it reached already 25.7%, which is the highest ration among the 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 analysis of primary survey data indicated that inward-outward investing foreign-owned companies are on average larger and more profitable companies than solely inward investors. They employ also considerably more people per company and are slightly less dominantly owned by a foreign owner. These results might be attributed to the higher participation of inward-outward investors in the international production network, whereas the network support helps to overcome several managerial constraints.

This network participation proposition is further supported by the next result. It showed that inward-outward FDI contributors in Estonia are in several fields of decision somewhat less autonomous from foreign units than inward FDI recipients. Inward-outward FDI pattern itself suggests several cross-boarder transfers along with managerial coordination. In this networked arrangement Estonian companies are likely to assume positions, which call for a restricted autonomy in a most strategic and risky matters like further FDI. It implies to the corporate role, which is somewhat dominated by the foreign parent.

Inward-outward FDI is relatively more facilitated by the access to growing markets and to the raw materials as investment motives than inward FDI. This result suggests also that inward-outward investors could be characterised as expansionistic and growth seeking companies. They are less satisfied with a public business promotion system (lack of state aid) and mobility issues (difficulties with getting work and living permits) than inward FDI recipients. This result indicates that inward-outward investors could also be considered as somewhat more experienced leverage seekers in the matters of financing and human resource utilisation. This somewhat footloose quest is using the transfers of patented technology even less minutely than inward investors.

The generalisation of these results is restricted by several limitations. Naturally, small sample sizes and their difference in two surveys dictate that all the results should be interpreted with extreme caution. There are also some interpretational issues concerning survey questionnaires, where some investigated aspects could have been still interpreted slightly differently by the two groups of respondents.

In terms of theoretical implications our results indicate that the differences between two FDI groups might be better explained by the network approaches and their managerial rational, than by the other streams of FDI or internationalisation literature.

From the management perspective inward-outward FDI pattern seems more rigorous in terms of role distributions and coordinating efforts than solely inward looking investment perspective. This sets additional requirements on the experiential background of the local management personnel in terms of inward-outward connections in a networked fashion.

The policy implications are that public business support system as well as institutional framework should aim for a better match with the higher expectations of inward-outward FDI providers. However, these policy measures should be first of all aimed at the strengthening of Estonia as the nodal location for such inward-outward transfers.

The future research should be aimed at collecting larger data samples in order to enable the use of more elaborate methods of data analysis. Although Estonian economy is very small and even small samples already include most dominant companies in several sectors, the data scarcity is still a significant limitation to be dealt with. Despite that our contribution offers interesting insights, which deserve more elaborate follow-up analysis.

ENDNOTES

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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 on the bases of data from the Bank of Estonia, 2008.

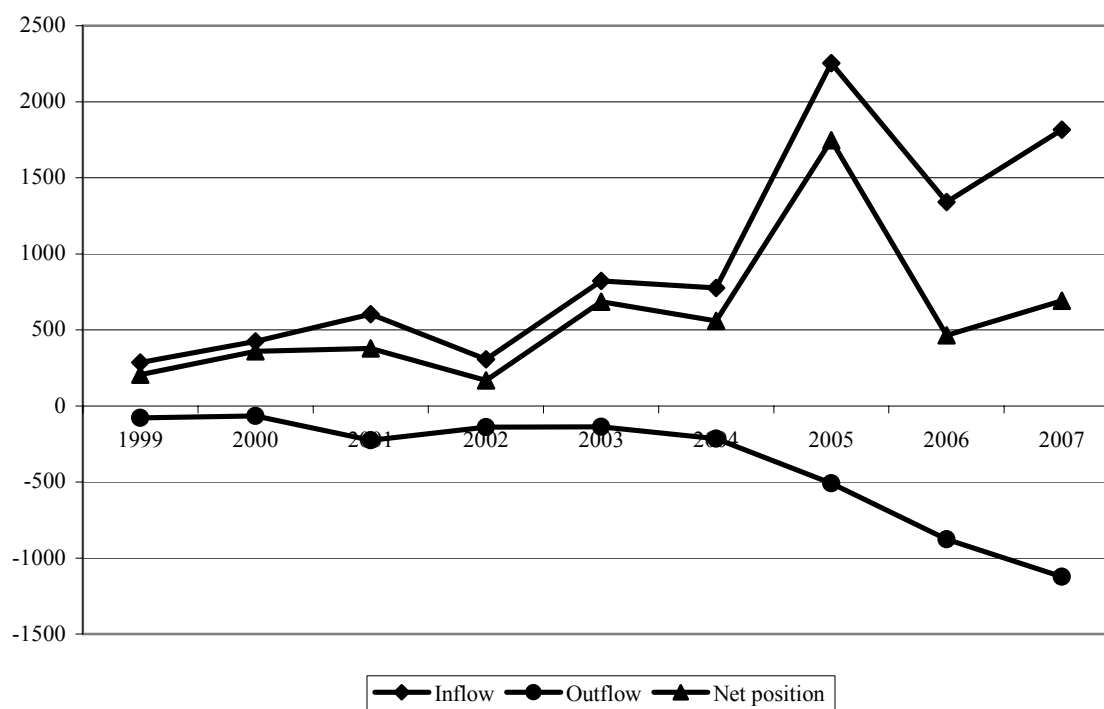


Figure 1. Inward and outward FDI flows and net position in Estonia between 1999 and 2007 (in millions of EUR) (Source: Bank of Estonia, 2008)

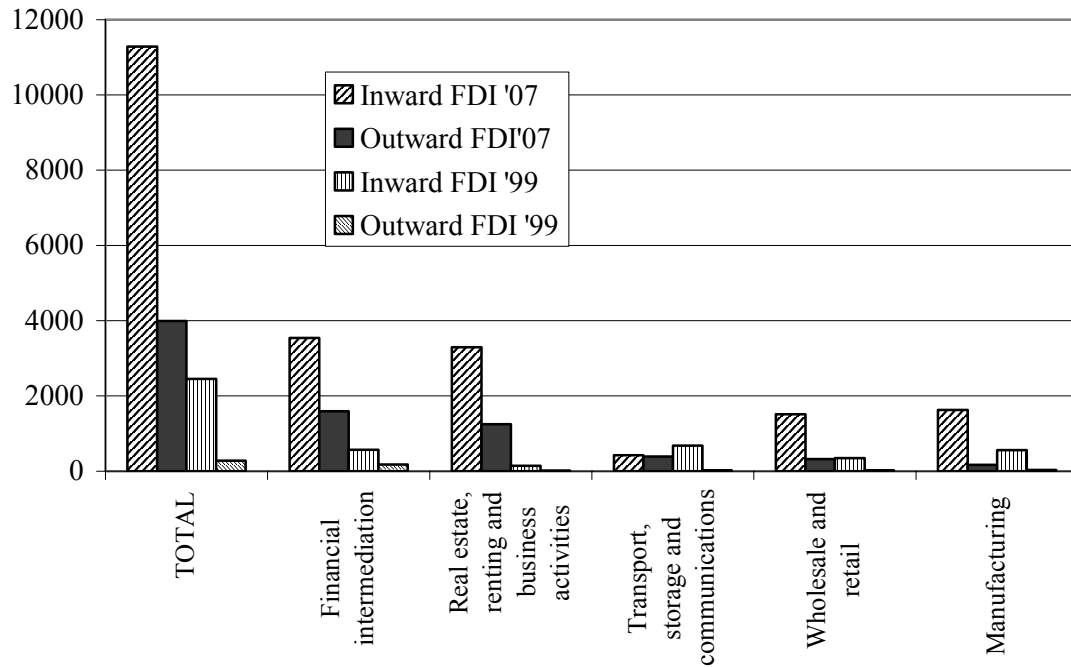


Figure 2. The investment position of Estonian industries in 1999 and 2007 (in millions of euros) (Source: Bank of Estonia, 2008)

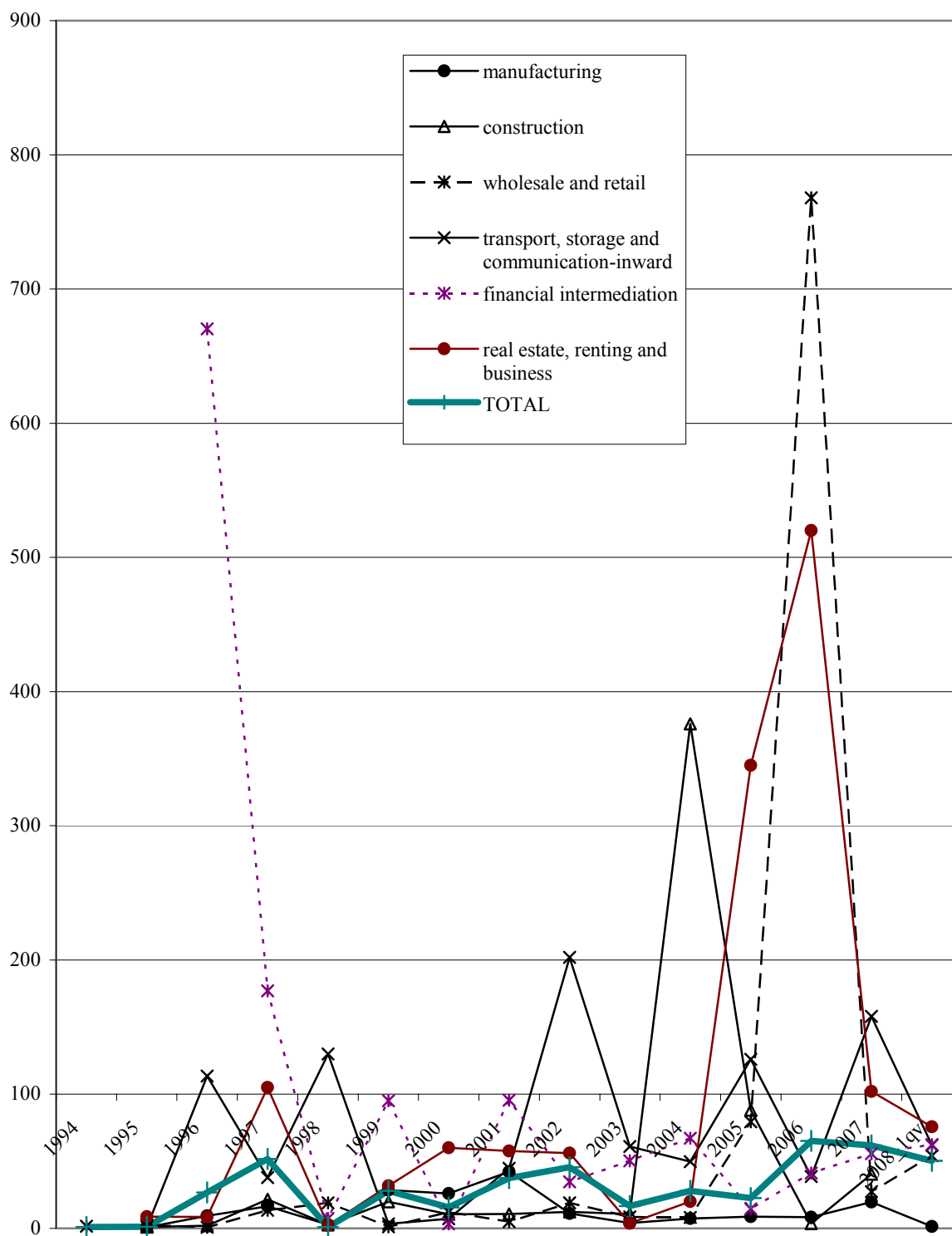


Figure 3. The annual ratios of outward FDI flows to inward FDI flows in selected industries 1994-2008 1qv. (%) (Source: Bank of Estonia, 2008)

Table 2: The comparative data of inward-outward and inward foreign investors in Estonia

	Inward-outward investors	Inward investors
Number of companies	21	75
from them: in manufacturing (%)	47.7	46.7
in trading (%)	9.5	24
in financial services (%)	9.5	5.3
in services (%)	33.3	24
Average net sales (mil. euros)	49.69	10.45
Average profit (mil. euros)	16.08	0.78
Average number of employees	705	137
Average share of exports from sales (%)	40	49
Average share of foreign ownership (%)	73	89
Average share of largest foreign owner (%)	68	87
The origin of largest investor (% of resp.)	Finland 28.6 Sweden 14.3 Germany 9.5 Norway 9.5 Netherlands 9.5 Denmark 4.8 Other 23.8	Finland 29.3 Sweden 22.7 Germany 12.0 Norway 5.3 Netherlands 4.0 Denmark 2.7 Other 24.0
Average year of establishment	1991	1987

Source: The Survey of Estonian Outward FDI (2006), The Survey of Estonian Inward FDI (2006)

Table 3: The means and standard deviations of inward-outward and inward investors' descriptors of autonomy in making various decisions
(on scale 1- fully decided by foreign company...4- fully decided by Estonian company)

	Inward-outward investors	Inward investors
Strategic management and planning****	mean 1.83 stdev 0.79	mean 2.31 stdev 0.95
Production****	mean 2.29 stdev 1.10	mean 3.12 stdev 1.05
Pricing***	mean 2.41 stdev 0.87	mean 2.89 stdev 1.01
Use of marketing channels	mean 2.88 stdev 0.78	mean 2.83 stdev 1.12
Export*	mean 2.14 stdev 1.03	mean 2.52 stdev 1.13
Foreign investment to other countries***	mean 1.18 stdev 0.39	mean 1.61 stdev 1.03
Subcontracting	mean 2.82 stdev 0.88	mean 3.13 stdev 1.13
Advertising**	mean 2.89 stdev 1.02	mean 3.28 stdev 0.94
Personnel****	mean 3.13 stdev 0.89	mean 3.58 stdev 0.60
Finance (reinvestment, enlargement plans)****	mean 1.53 stdev 0.62	mean 2.14 stdev 1.00
R & D****	mean 1.63 stdev 0.72	mean 2.36 stdev 1.20
Product innovations****	mean 1.88 stdev 0.60	mean 2.56 stdev 1.10
Market research	mean 2.88 stdev 0.81	mean 2.96 stdev 1.13
Logistics****	mean 2.69 stdev 1.01	mean 3.40 stdev 0.77

**** $\alpha=0,05$ *** $\alpha=0,1$ ** $\alpha=0,2$ * $\alpha=0,28$

Source: The Survey of Estonian Outward FDI (2006), The Survey of Estonian Inward FDI (2006)

Table 4: The other differences in survey responses of inward-outward and inward investors

The means and standard deviations of inward-outward and inward investors' evaluations of major problems constraining further development and/or enlargement of foreign owned firms in Estonia (on scale 1-unimportant...4-very important)	Inward-outward investors	Inward investors
Lack in state aid****	mean 2.28 stdev 0.89	mean 1.78 stdev 0.90
Difficulties with getting work and living permits***	mean 2.26 stdev 1.05	mean 1.83 stdev 1.02
Weakness of continuing education system	mean 2.71 stdev 0.92	mean 2.86 stdev 2.57
The means and standard deviations of inward-outward and inward investors' evaluations of motives for FDI (on scale 1-unimportant...4-very important)	Inward-outward investors	Inward investors
Presence at target market****	mean 3.42 stdev 0.69	mean 2.75 stdev 1.05
Rapid growth of market****	mean 3.32 stdev 0.75	mean 2.72 stdev 1.03
Access to raw materials***	mean 2.17 stdev 1.04	mean 1.70 stdev 1.08
Low cost labour**	mean 2.33 stdev 0.77	mean 2.66 stdev 0.96
Acquisition of other strategic assets (brand, distribution channels etc.)**	mean 2.28 stdev 0.89	mean 1.93 stdev 1.05
The means and standard deviations of inward-outward and inward investors' evaluations of knowledge transfers from subsidiary/parent (on scale 1-unimportant...4-very important)	Inward-outward investors	Inward investors
Patented technology**	mean 1.63 stdev 0.90	mean 2.02 stdev 1.18
The means and standard deviations of inward-outward and inward investors' evaluations of knowledge transfer channels (on scale 1-unimportant...4-very important)	Inward-outward investors	Inward investors
Intranet and possibilities of inter-company databases*	mean 2.37 stdev 1.12	mean 2.69 stdev 1.14

**** $\alpha=0,05$ *** $\alpha=0,1$ ** $\alpha=0,2$ * $\alpha=0,28$

Source: The Survey of Estonian Outward FDI (2006), The Survey of Estonian Inward FDI (2006)