ESTONIA

This compilation was prepared on the basis of the OLIS Document CCNM/BALT(2000)6Abstract: “Baltic Regional Programme-Privatisation, Governance and Restructuring of Enterprices in the Baltics by Niels Mygind “

TABLE OF CONTENTS
(Original arrangement)

Boxes

PRIVATISATION, GOVERNANCE AND RESTRUCTURING OF ENTERPRISES IN THE BALTICS

by Niels Mygind[1]

1. Introduction

1. The experience in Eastern Europe shows that there is a clear connection between the different methods of privatisation and resulting ownership structures in privatised enterprises. Ownership structure here refers to the distribution of ownership rights held by different groups of owners / stakeholders in relation to the enterprise. Different stakeholders - including managers, other employees, domestic persons, domestic non-financial enterprises, domestic financial enterprises and foreign enterprises - often have quite different objectives. In addition they possess different resources, such as capital, technological knowledge, management knowledge, and access to networks.

2. In this paper emphasis will be put on insider ownership which can be divided in management ownership and employee ownership when owned by a broad of employees. Both management and employee ownership have been important elements in the development of new ownership structures in the Baltic countries. At the same time insider ownership has been taken as an obstacle for restructuring of enterprises (Carlin and Landesman, 1997; Pohl *et al.*, 1997, Frydman *et al.*, 1997). We will also put emphasis on the development of foreign ownership, which, in contrast to insider ownership, has been taken as a guarantee for restructuring, because foreign investors have strong resources of capital, management and technological skills, as well as access to international supplier and distribution networks.

3. The rights in relation to the enterprise are not only derived from ownership of enterprise assets. In addition we need to take account of the role of legislation, giving other types of rights to different stakeholders. The development of legislation and enforcement of company code, rules on trade of ownership rights, bankruptcy legislation etc. often play important roles in influencing for the distribution of rights and thus for the development of corporate governance.

4. The ownership structure of given enterprises is determined by the privatisation methods interacting with the specific conditions in the enterprise (size, capital-intensity etc) and the resources of the potential new owners. Privatisation will often favour a special group of stakeholders, and this group might or might not want to exchange these rights with another group of stakeholders. Such a change of ownership depends on the possibilities and conditions for trading - on the development of the market for ownership. The capital market plays an important role in this context. Some methods of

---

1. Copenhagen Business School, Center for East European Studies. This paper was written as a background document for the preparation of the OECD Economic Survey "Baltic States: A Regional Economic Assessment" (OECD, 2000). The opinions expressed in the paper are those of the author and do not reflect necessarily the positions of the OECD or its Member countries.

privatisation can help to develop the stock exchange by developing the regulatory framework and by boosting the trading of vouchers and shares on the stock exchange.

5. The institutional framework, legislation on registration of ownership, the development of the stock exchange, the transparency and quality of information of enterprise performance are important elements behind the change of ownership after privatisation. Some groups who have acquired shares because of special preferential opportunities might want to change their portfolio. The possibilities of change thus depend on their preferred portfolio composition and on the possibilities for making this adjustment. This paper will include an analysis of the change in the distribution of ownership after privatisation.

6. The governance structure is a question about who takes the decisions and what are the incentives for different groups to supply their resources and effort in improving the efficiency of the enterprises. The test of how the governance structure is functioning is the economic performance of the enterprises. In the context of transitional economies it is of special interest to evaluate their progress in restructuring the enterprises - to develop new products, production methods and markets. In this paper we will not make a deep analysis of restructuring, but summarise the preliminary results on our data for the three Baltic countries.

7. The structure of the paper is as follows. In the next three sections we will describe the privatisation process in each of the Baltic countries. The process is divided into different stages dominated by different privatisation methods. We will show how these different methods have resulted in different ownership structures in each stage. These descriptive sections end with comparative overviews also including the main elements in the institutional framework for corporate governance. In the following sections for each country we will analyse the resulting ownership structures, how these structures have changed after initial privatisation, and finally present findings on the relationships between ownership and economic performance.

2. The privatisation process in Estonia

2.1. Stages of privatisation - organisation and legislation

8. Privatisation in Estonia may be divided in three stages. Early privatisation, small privatisation, and large privatisation mainly based on tenders.

9. The first stage of early privatisation began in all three Baltic countries in the Soviet period before full independence in August 1991. The first private enterprises were the result of the liberalisation following the perestrojka policy of Gorbatjov and included small individual enterprises, cooperatives, and joint ventures. For Estonia the first early privatisation was related to perestrojka experiments on “small state enterprises” dating back to 1987. In the late 1980s and especially in 1990-91 the Baltic States already had started their own economic legislation. In this period further early developments in privatisation are evident, making it difficult to define a strict borderline between early quite unauthorised or spontaneous privatisation and more regulated development in later stages. In Estonia an economic reform programme was introduced in 1989. This included the proposal for so-called “People’s enterprises”.

10. In October 1990 the Department of State Property in the Ministry of Economy was founded to supervise the development of privatisation including auctions of small scale enterprises which began in March 1991. The basic law of fundamentals of ownership reform enacted in June 1991 gave priority to restitution and voucher privatisation. However, this part of privatisation was postponed and the most important part of the privatisation in the early years of transition turned out to be small privatisation based on legislation from December 1990. In the first years this privatisation of small enterprises was governed by the Department of State Property in cooperation with local municipalities.

11. After September 1992 a more independent unit was established: The Estonian Privatisation Enterprise with support from the German Treuhandanstalt. The authority of this agency was developed further in the general law on privatisation introduced in June 1993. The Estonian Privatisation Enterprise was merged with the Department of State Property and the name changed to Estonian Privatisation Agency. While the June 1993 law contained the remaining provisions for parts of small privatisation, its prime aim was to define the rules for large tender privatisation, which can be considered as the third and last stage of privatisation in Estonia.

Box 1. **Estonia - enterprise privatisation - organisation and legislation**

Organisation

- Department of State Property, Ministry of Economy, founded October 1990 to carry out small and pilot privatisation.
- September 1992: the Estonian Privatisation Enterprise (EPE) starts activities with support from experts from the German Treuhandanstalt.
- September 1993: the Estonian Privatisation Agency (merging EPE and DSP) diminished ambiguity on responsibility and increased centralised authority, EPA responsible for both small privatisation and large privatisation.

Main legislation:

- 1986/1987: resolutions 43/1986 and 91/1987, small state enterprises in Estonia.
- December 1989: Charter on Peoples Enterprises.
- September 1990: Law on leasing.
- December 1990: the Law on Small Scale Privatisation.
- June 1991: Law on the Basis of Property Reform - restitution, vouchers.
- September 1991: Law foreign investment - ensures repatriation of profits.
- October 1991: Land Reform act - reprivatisation of land.
- May 1992: Amendments to Law on Small Privatisation.
- September 1992: Bankruptcy law - strict, creditors get strong position.
- September 1992: Parliament resolution on tender of large enterprises, EPA.
- April 1993: Foreigners allowed to buy land with production facilities.
- June 1993: Privatisation Law - small and large unified - EPA.
- June 1994: Free voucher trade among Estonian residents and companies.
- August 1994: Procedure for public offerings and investment funds.

2.2. Early Privatisation in Estonia

12. Early legislation in the Soviet period, before full independence in August 1991, favoured insiders. The first transformation of state ownership started in 1987 in the form of "small state-owned enterprises". By 1989 there were 461 small state-owned enterprises with nearly 6000 employees (Venesaar, 1991 p. 44) and in July 1991 the Ministry of Economics had registered 705 of this type of semi-private enterprise. Most of these were initiated and controlled by a large state-owned enterprise, and often it was the start of a spin-off to a private enterprise mainly controlled by people from management in the initiating enterprise. According to Frydman *et al.* (1993, p. 147) many of the successful Estonian entrepreneurs first established their businesses as "small state enterprises". Compared to other parts of the Soviet Union also "new cooperatives" developed quite early and rapidly. In January, 1990, there were more than 2000 new cooperatives with about 7 per cent of employment (Arkadie *et al.*, 1991, p. 258). The number of cooperatives peaked in 1993. According to the Statistical Office of Estonia there were 2943 cooperatives in August 1993. Since then many cooperatives have been transformed to other legal forms In July 1998 there were 2124 cooperatives in the enterprise register, but only 769 of them were registered as profit earning cooperatives (ESA 1998).

13. Some of the first examples of employee ownership in this early stage of privatisation in Estonia were leased enterprises established under the Soviet legislation of 1989. According to Terk (1996, p. 120) there were 12 large enterprises mainly with Russian employees which formed a lease system under Soviet law. The Soviet law gave the right to lease the enterprise to the work collective. An option to buy was also included and we assume that most of these enterprises were taken over by insiders. In July 1991 this law was changed to Estonian rules and around 200 of such enterprises were leased according to the new rules. The new rules also opened up for leasing by the management and by outsiders. According to Terk (1996 p 199) management take-overs were favoured by the state bureaucracy. The leasing option was stopped by 1993 and most of the leased enterprises were gradually changed to full ownership most often by the leaseholder.

14. The early reform programme also favoured so-called "peoples enterprises" which included a type of experimental leasing system for insiders. But by 1991 only 7 large enterprises had been taken over mainly by insiders with five of these firms having full employee ownership (Terk, 1996).

15. In the early period take-overs by foreign companies was not widespread. However, as with new cooperatives, Estonians were also the most active in the former Soviet Union in using the possibilities for creating joint ventures. The first joint ventures were established in Estonia already in 1987. There were 11 joint ventures in 1988 and 320 by the end of 1992 (Purju, 1996).

2.3. Small privatisation in Estonia

16. After Estonian independence in August 1991 the political climate changed and a strategy emphasising employee ownership was no longer in favour. Thus while the initial legislation on small privatisation introduced in spring 1991 favoured insiders, after May 1992 most of these preferences were at least formally taken away. In the early version of the law employees had the right to buy the enterprise for the "initial price" which in most cases was much below the market value of the assets. It is estimated that around 80 per cent of the first wave of 450 small enterprises were taken over by insiders before the change in policy (Kein & Tali, 1994). Subsequently, while insider ownership still continued to be an element in the privatisation process, its importance fell. In the bidding process insiders had now the opportunity to match the final bid. Furthermore, with the amendment of May 1992 the circle of participants in privatisation was widened to include foreigners (Männik, 1997). In the general law on Privatisation from June 1993 the last privileges of insiders were taken away

(Table 1. Small privatisation in Estonia (objects sold by auction))

17. The control of the privatisation process including small privatisation was taken over by the Estonian Privatisation Agency (EPA) in 1993. The development in sales can be found in Table 1. In this stage of small privatisation the method of sale by auction included relatively small objects often split off from larger companies. However, the price per object increased considerably during the period, and since the June 1993 law there were no formal limit of the asset value for sale on auctions. From this time the distinction between small and large privatisation was a question of method more than a question of size.

18. From Table 1 it can be seen that small privatisation proceeded very rapidly in the first years, when the assets were sold for very low prices. Note, however, that the increase in average price especially in the early years also was due to inflation. Compare in Table 1 with the average price 1995 EEK, deflated by CPI. In the later years the increase is caused by the fact that it was another type of objects sold: fixed assets spin-offs from enterprises in large privatisation. The small privatisation was very fast in the early years. Already in 1994 83 per cent of the activities in the service sector, 90 per cent of whole sale and 94 per cent of retail sale were private. In 1991 more than 90 per cent of the enterprises in the service and trade sector had belonged to the state or municipalities (Purju 1996).

2.4. Large privatisation through EPA

19. From 1993 the strategy for large privatisation changed to resemble the German Treuhandanstalt model. The Estonian Privatisation Agency put out large enterprises for open tender, often announced internationally. The offered price was only one of the criteria for choosing the buyer, though employees were not given any preferential treatment. Also the proposed business plan and guarantees for investments and employment played an important role. In this model the main idea was to find a core investor. Since substantial capital was needed, foreign capital had an advantage in this process. Also at this stage, since the managerial group often had accumulated some capital, it was possible for them to begin to secure loans in the rapidly developing system of private banks. Furthermore, domestic capital suppliers were allowed to buy on instalment and it was also possible for domestic buyers to use vouchers as part of the payment from summer 1994. Hence, at this stage, alliances between managers and a broad group of employees were no longer necessary. In addition, foreign capital gained increasing access during this stage of large privatisation. From spring 1996 they were also allowed to buy on instalment and to use vouchers as payment (Kein and Terk, 1997). Only in rare cases did broad groups of employees have the opportunity to take over their enterprises in this type of privatisation.

20. The Treuhandanstalt model gained speed during 1993, and the largest number of privatisation contracts for large enterprises were made in 1994, see Table 2. At the end of 1995 most large enterprises had been privatised. However, this type of tender privatisation has continued since then so that by 1999 only a few though quite large enterprises remained. At the end of 1998, 483 large enterprises had been sold through EPA by direct sale at a total price of around 4.7 billion EEK or 400 million USD. The investment guarantees amounted to 4.6 billion EEK and the owners took over liabilities for 2.2 billion EEK. The table shows a tendency for fewer, but larger and more expensive enterprise privatisations, between 1994-97.

21. The bulk of enterprises in the large tender privatisation were industrial companies. The share of the private sector in industry thus gives an indication of the speed of this privatisation: According to the Ministry of Economic Affairs (1999) the private share of industrial sales increased from 33.8 per cent in the first quarter of 1994 to 65 per cent in the first quarter of 1996 to 84 per cent in the end of 1998.

(Table 2. Overview over large privatisation by tender in Estonia - total)

22. Table 2 shows that foreign dominated take-overs played a considerable role already from the start of the tender privatisation in 1993, and this role increased over time. For 1997 and 1998 foreign

capital paid more than 50 per cent of the total revenue for EPA and over the period 1993-98 foreign capital paid 31 per cent of the revenue. In the first years the estimate of foreign take-overs might have been slightly underestimated. Before late spring 1996 (Kein and Terk, 1997) they could not pay by instalment and use vouchers as was the case with domestic buyers, thus giving an incentive to have domestic investors formally involved (Purju 1998). In the first years instalment could cover up to 80 per cent.

(Table 3. Large privatisation by tender in Estonia - foreign dominated)

23. From spring 1994 it was made possible to pay up to 50 per cent of the price by vouchers and the compulsory initial payment was increased from 20 per cent to 50 per cent of the price. Most privatisations after June 1994 exploited the opportunity of 50 per cent payment by vouchers. However, the overall average figure is considerably lower because some of the largest privatisations, especially by foreigners, did not use vouchers. (According to the information provided by EPA already by 1995 foreign take-overs paid on average 33 per cent by vouchers and vouchers were used in 3 out of the 5 enterprises taken over by foreign capital).

24. Employment guarantees played a minor role in the foreign take-overs especially in the later years. Over the whole period foreigners took over liabilities to a lower extent than was the case with domestic buyers. On the other hand, foreigners have given much higher investment guarantees. This is not surprising since one of main advantages of foreign owners is their easier access to capital.

25. Since both the actual purchase price and the following investment will be registered as FDI, Table 3 shows the importance of privatisation for attracting foreign capital in Estonia. Other flows of FDI are connected to green field investments and to take-overs of existing enterprises established or privatised by domestic owners. It is difficult to estimate the exact distribution on these different modes of FDI. Data from The Bank of Estonia and ESA shows that green field investment are quite high in the early years, but later on take-overs of existing enterprises played the strongest role. If we take the purchase price plus the investment guarantees as indicators for the importance of privatisation, from Table 3 we can see that privatisation related FDI made up around 34 per cent of FDI in existing enterprises in the period 1993-98 and 18 per cent of total FDI in the period. There is a steeply increasing trend up to 1997, broken sharply in 1998, but this is mainly explained by huge Swedish/Finnish investment in the two largest private banks in Estonia in 1998. If the investment guarantees were spread out for the following three years also a more smooth increase would emerge.

26. Most foreign owned enterprises are quite small including many sales outlets and service entities established to facilitate access to the Estonian market. The initial stage took place when the Estonians used the possibilities in the new Soviet Joint Venture legislation, see section 2.2. At the start of 1991, 414 foreign owned enterprises were registered in Estonia. By the start of 1993 the number had increased to 3814 (Liuhto, 1995). By July 1996 5857 enterprises or 9.4 per cent of the total number of enterprises were registered as "foreign property". The investments were strongly concentrated in the area around Tallinn with 82 per cent of the foreign owned enterprises (ESA, 1996). Based on the statistical profile for active enterprises (ESA 1998) there were 1981 active foreign enterprises in 1995 increasing to 2386 in 1997, respectively 6.5 per cent and 6 per cent of the total number of enterprises. Half of them were in trade and 19 per cent in manufacturing.

27. Two types of vouchers have been distributed in Estonia. Capital vouchers were distributed to all residents depending on years of work. Compensation vouchers were distributed to owners (or their heirs) of property nationalised in the early Soviet period if they did not want this property back, or if it was not possible to return this property. By the end of 1998 there had been distributed 8.3 billion EEK and 7.1 billion compensation vouchers (Ministry of Finance). The two types of vouchers are used in parallel for privatisation of real estate and enterprises.

(Table 4. The use of vouchers in Estonia)

28. In March 1995 the biggest investment fund crashed implying losses for investors exceeding the losses incurred during the Estonian banking crisis in 1992-93 (Kein, 1995). This was an important reason why investment funds did not develop like in other countries with voucher schemes. Investment funds accumulating vouchers did not have any formulated role in the Estonian legislation. By June 1996 there were 6 privatisation investment funds, and their total amount of vouchers were only around 1 per cent of the total value of distributed vouchers (Kein and Terk, 1997).

29. Vouchers were declared non-tradable from the start, then during spring of 1994 trade of vouchers were gradually approved and from August 1994 vouchers were made freely tradable (Kein and Tali, 1994 p. 31). At that time the expectations about the real value of vouchers were quite low, and at the same many poor people were in acute need of cash. Therefore, the supply was high and demand relatively low resulting in a very low market price of the vouchers. As can be seen from Table 4 the market price of vouchers has been rather volatile. The lowest price was 13 per cent of the nominal value in July 1995. In the later years the price increased somewhat to reach a maximum of 47 per cent of the nominal value at the end of the stock market boom in the autumn of 1997.

30. Since 1994 is has been a quite profitable business to buy up vouchers and use them as substitute for cash in enterprise privatisation. Therefore, a considerable concentration of these owners' certificates took place in the years following the distribution of vouchers. This is one reason why vouchers should not lead to a diversified structure of ownership in Estonia.

31. Vouchers were primarily used for privatisation of housing, but from the end of 1994 it was also possible to use vouchers for buying minority shares in some large companies of which the majority of shares had already been sold to a core owner. In fact, only vouchers could be used in these public offerings of minority shares started in the end of 1994. The first two - the largest department store in Tallinn and the brewery SAKU, were sold by fixed price to around 50000 buyers, using 100 million EEK nominal value of vouchers. In the following offerings the shares were sold in auctions and a much more limited number of bidders participated. In July 1997 a minority holding of shares in Eesti Gaas were sold for 406 million EEK worth of vouchers to 1338 bidders. By the end of 1997 minority holdings in 39 enterprises had been privatised in this way removing the value of 2,3 billion. EEK vouchers from circulation. Beside the privatisation of housing and industrial assets vouchers have been and will be massively used for privatisation of land and forest. Until 2003 privatisation of land by pre-emptive restitution rights and by auctions are expected to absorb 4-5 billion voucher EEK (estimate by the Ministry of Finance).

32. Privatisation of public utilities and enterprises related to infrastructure started with the privatisation of 66 per cent of the shares in Estonian Air in June 1996. The shares were sold to a Danish company. In August 1996 part of Estonian Oil was sold to an investor from USA. In 1997 the big shipping company was sold to a Norwegian investor and in 1998 parts of the energy sector were privatised. These privatisation were part of the normal EPA-tender process, but were often combined with public offerings of minority holdings. In most cases the objects for privatisation were natural monopolies, therefore, some special state regulation was needed in each case. In February 1999 49 per cent of Eesti Telekom shares were sold on the domestic and international stock exchanges.

33. From as early as September 1992 Estonia had implemented a rather tough law on bankruptcy. Most state-owned enterprises were cut off from subsidies and some of them were liquidated and their assets privatised. Forty medium to large enterprises had been privatised through liquidation at the end of 1998, and a much larger number of small enterprises had been privatised in this way.

34. As in other part of the Soviet Union there were only branches of the State Savings Banks, the Agricultural Bank and the Bank for Foreign Trade to privatise. Most banks were started as private or semi-private entities quite early in the transition process. In Estonia the state banks were commercialised and transformed into joint stock companies already prior to monetary reform in June 1992. According to EPA the public share in banks equity fell from 30 per cent in April 1993 to

23 per cent in 1994, to 12 per cent in the autumn of 1996. In 1996 a large state-owned insurance company was privatised (Purju and Teder 1998). In 1998 the two largest Estonian banks were taken over by two Swedish banks. Swedbank acquires 56 per cent of Hansapank and Skandinaviska Enskilda Banken 32 per cent of Eesti Ühispank. According to Sutt (1999) the foreign share of ownership in Estonian banks increased from 15 per cent of the assets in 1994 to 44 per cent in 1997 and to 61 per cent at the end of 1998.

35. Quite strict regulation of the banks was implemented early on and Estonia experienced a serious banking crisis in the early years of transition, 1992-93. All the insolvent banks, including the largest bank, were closed down except two, which were restructured under guidance of the central bank. The number of banks fell from around 40 in the summer of 1992 to 22 years later (Rajasalu 1994). The tough reaction from the Central Bank was a clear signal to he economic agent that a hard budget constraint would be enforced. The law on Credit Institutions from 1995 gave authorisation for universal banking allowing banks to both own and finance other financial institutions as well as non-financial enterprises.

36. The Privatisation Agency handles privatisation of land for those businesses that have been privatised through EPA. The legislation on land ownership has been somewhat behind. Prior to 1996 land were not included in the privatisation contracts, but the buyers of enterprises obtained the prerogative rights to privatise the land underneath the enterprise buildings. Therefore, the land ownership has in many cases been transferred to the new owners later than the building and equipment. In 1996 169 land purchase agreements for 179 million EEK had been signed, increasing to 264 in 1997 and 546 in 1998.

6. Results of privatisation - Estonia

6.1. The ownership structure after privatisation

120. Table 17 gives an overview over the distribution of ownership in an Estonian sample of 666 enterprises at the time of privatisation before January 1995 (Jones and Mygind, 1998). 83 enterprises privatised during 1995 and 1996 were included in the 255 state (and municipality) owned enterprises. 6 enterprises did not give information about their ownership at the time of privatisation. Among the 405 responding private enterprises (666-255-6) there are slightly more outside owned than insider owned. Enterprises with outside majority dominated by domestic owners constitute 31 per cent of the private enterprises or 19 per cent of the total. Outside majority with foreign dominance is at the same level as inside majority with employee dominance -- 22 per cent of the private enterprises or 13 per cent of the total. Inside majority with management dominance makes up 16 per cent of the private enterprises and 10 per cent of the total enterprises. 6 per cent had no majority for either state, outsiders or insiders.

121. Based on information about the total distribution of enterprises for different size groups and branches a "normalisation" for the whole economy can be calculated, see Table 17. The proportion of foreign ownership out of the total number of firms with 5 or more employees increases in this calculation because foreign ownership is very high in trade (35 per cent of trade enterprises), including a high number of enterprises. Foreign ownership was also strong in transport (20 per cent) and services (18 per cent). Employee ownership was most widespread in agriculture (39 per cent) and lowest in transport (3 per cent) in January 1995. Manager ownership was most widespread in fishing, mining and wood production (27 per cent) and lowest in trade (6 per cent). However, by January 1997 the share of manager ownership for the whole economy increased to 26 per cent, and for trade to 13 per cent (not reported in the table).

122. A normalisation based on capital show that foreign ownership amounted to 37 per cent of the nominal capital for the privatised enterprises on January 1995. However, if calculations are made

according to the number of firms, then foreign ownership is found to play a smaller role. This is because the nominal capital is much higher in foreign owned companies (Mygind 1995).

123. There is no clear tendency in the distribution between different private ownership types concerning the average size measured as the average employment in 1994. However, state-owned enterprises tend to be relatively large with an average size of 205 employees. A few very large state-owned enterprises account for this result - the median state-owned enterprises are on the level with the whole sample. The high number of small foreign owned trading companies explains why foreign ownership is most common for small enterprises (average of 66 employees). Also insider majority owned enterprises with management dominance tend to be rather small. Comparing these results with the situation of ownership in January 1997 and average employment in 1996 (not reported in the Table) it is striking that most of the large employee dominated enterprises in the sample have disappeared.

124. The Statistical Office of Estonia has done a survey representing all active enterprises in Estonia. Some of the results are given in Table 20. The distribution of ownership fits quite well with the earlier analysis based on the smaller sample. The enterprises that remained state or municipal owned by 1997 were relatively large and foreign owned companies were on average larger than the domestic owned enterprises. In the period 1995 to 1997 the relative weight of net sales in the public sector has been halved from 18 per cent to 9 per cent. However, the table shows that the number of foreign enterprises only makes up 6 per cent of the total, indicating that there might be a number of inactive foreign owned “paper” companies. It is also striking that the foreign enterprises have on average nearly around the double size measured as number of employees in comparison with other private enterprises. Looking at other indicators such as sales the share of foreign owned enterprises increases to 19 per cent by the end of 1997 or by assets the share is 18 per cent. Still the small sample results in a higher proportion of foreign enterprises. The difference might be explained by ESA using the legal definition of foreign ownership, and not all foreign owned enterprises are formally registered as such.

125. Capital intensity both measured as total assets per employee and nominal capital per employees is relatively high in foreign owned enterprises and relatively low for insider owned enterprises. For the small sample in January 1995 the nominal capital per employee is only 2,000 EEK per employee or less for more than half of the insider owned enterprises. The average number of 299,000 EEK per employee in foreign owned companies versus 4,000 EEK in employee dominated enterprises show a striking difference. For total assets the difference is “only” ten times higher in foreign owned than in insider owned. These results can also be found for the data for 1993 and 1994 (Mygind 1997a p. 31). Table 20 for the total population of larger enterprises confirms the tendency of a quite high capital-intensity in foreign owned enterprises although the tendency is much less significant than for the small and earlier data-set.

126. The results can probably partly be explained by the fact that outsiders especially foreigners can afford enterprises with a higher capital per employee. Also, typically foreign owners have paid a price that is relatively high (at least compared to insiders) for similar enterprises. Relatedly, foreign ownership became more prevalent in the later stages, with insiders dominating during the early stages of the privatisation process.

127. This last point is supported by the observation that insider take-overs were especially important during the early stages of privatisation. This is shown at the bottom of Table 17. Insider ownership was very important especially in 1991, when take-overs with broad employee ownership were quite prevalent. During 1992-1994, after the ending of preferences for insiders, we see that the percentage of nominal capital owned by outsiders has become more important. In 1995 and 1996, 65 out of 243 state-owned enterprises were privatised. It is worth noting that in this group there were no cases of insider majority with employee dominance. Nearly half of the responding enterprises (46 per cent) went to majority outside domestic ownership, 16 per cent to majority foreign ownership, 25 per cent to management dominated insider ownership and 7 per cent to no majority.

128. The variation in the incidence of employee ownership also applies across individuals as well as firms. Even in majority owned enterprises on average 46 per cent of the employees were not owners in 1995 and the percentage of non-owners were increasing over time. The participation rate for all enterprises varies enormously across sectors, from 78 per cent in agriculture to less than 10 per cent in hotels and restaurants and transport. Also at the individual level employee ownership seems to be most stable in small enterprises, and more small enterprises have a fairly equal distribution between the employee owners compared to the situation in larger enterprises. Based on the sample it is estimated that for the whole economy 29 per cent of the employees were owners in 1995 falling to around 25 per cent in January 1997 (Jones and Mygind 1998).

6.2. Dynamics of ownership - Estonia

129. The privatisation process and the start of new firms are only the start of the development of new ownership structures. By using our survey data we are able to examine changes in ownership in sample firms between the time of privatisation and subsequent times (for details see Jones and Mygind, 1998).

130. At the top of Table 17 results for the ownership structure on time of privatisation and on January 1995 and 1997 are shown. Not surprisingly the number of state and municipal owned enterprises has fallen. Many of them have moved to the no answer category, which also include enterprises closed down. Out of 76 "no answers", 47 are known to be closed state-owned enter-prices. Among the private enterprises the number with foreign dominance is stable while domestic owned and management owned enterprises are increasing and enterprises with insider majority with employee dominance is falling.

131. Table 17 shows that at the time of privatisation there were 28 employee dominated enterprises with more than 100 employees in the sample. By January 1997 this number had fallen to 9. For the similar enterprises with less than 100 employees the numbers fell from 60 at the time of privatisation to 42 in January 1997. Normalised for the whole economy employee ownership had in 1995 a higher proportion in large enterprises (17 per cent) than in small (10 per cent), but in 1997 the proportion of employee ownership in large enterprises fell to 7 per cent (not reported). For management dominated enterprises especially the number of small enterprises in the sample increased. Domestic outside majority owned enterprises increased their share especially for large enterprises.

132. To analyse the dynamics more closely we present two transition matrices. Table 18 shows the same ownership categories presented earlier, comparing the change from the situation at the time of privatisation and the situation on January 1997. The earlier shown fall in employee ownership from 88 to 52 enterprises is shown, but additionally it can be seen that this change covers a stable group of 38 enterprises combined with a deduction of 50 enterprises and an addition of 14 enterprises. The flow away from employee dominance has gone mainly to management dominance, 21 cases, and to domestic outside ownership, 17 cases. Only 4 enterprises have developed in the other direction from management to employee dominance and only 3 from domestic to employee ownership. Management ownership has got 14 case from domestic outside ownership and 16 cases from state ownership. It is revealing to see that the number with no clear majority ownership group has fallen from 38 to 17, indicating a strong tendency in Estonia for an ownership configuration to emerge in which there is a clear core-owner. Most of the no-majority cases have gone to domestic and management ownership.

133. Excluding the no-answer group and the state-owned group, only looking at changes within the private ownership enterprises giving information for the two dates, 100 enterprises have changed category while 232 have been stable. This means a change of 100/332 = 30 per cent in the period of approximately 3 years -- a quite dynamic ownership adjustment. From the time of privatisation to January 1995 this transition percentage was 71/405 = 18 per cent, from 1995 to 1996 it was 52/373 = 14 per cent, and from 1996 to 1997 it was 60/378 = 16 per cent. (The sum of the three periods is less than 30 because a firm can change more than once).

134. Table 19 shows a transition matrix for employee ownership comparing the time of privatisation and January 1997. There is a clear tendency so that the frequency of the high degree employee ownership is falling and the frequency of the low degree of employee ownership is increasing. The cases with 0 per cent employee shares includes mainly state-owned enterprises. Thus the fall in this category reflects privatisation. From the matrix it can be seen that the 85 enterprises with 50-100 per cent employee ownership at the time of privatisation has been reduced to 36 enterprises. The enterprises have transferred mainly to the neighbouring categories 10-30 per cent and 30-50 per cent, but some majority employee owned enterprises has also transferred to the lowest categories of employee ownership. Only 45 enterprises have jumped to a category with higher employee ownership and of these 41 enterprises have jumped from 0, indicating that it covers mainly privatisation cases. 80 enterprises have moved in the other direction. A similar transition matrix for management ownership (not shown) shows complementing tendencies: fall in the low categories and an increasing number of enterprises in the high categories of management ownership. This is not surprising seen in combination with the earlier mentioned tendency of transfer from employee to management ownership.

6.3. Ownership and economic performance - Estonia

135. To assess the economic performance of different ownership structures the initial conditions - size, capital-intensity and profitability - must be taken into consideration. We have already shown how foreign owned enterprises have a relatively high capital-intensity while the opposite is the case for insider owned enterprises. Because, insiders especially concerning small enterprises often had the first choice it could be expected that they had “skimmed the cream”. We have relatively few observations with information about profitability before privatisation, and we do not have any significant results indicating that insiders took over the most profitable enterprises (Mygind 1997*b*). However, insiders might have acquired their enterprises at a relatively low price as also indicated by the early small privatisation. Foreign investors on the other hand have advantage in the access to capital and have been able to buy highly capital intensive enterprises.

136. Data on performance can be taken from the sample of 666 enterprises covering the period 1993-97 with detailed ownership information and financial variables and the financial survey 1997 done by ESA covering all large enterprises and a representative sample of small enterprises, with information on foreign, but without information on insider ownership, see Table 20. We will look at key variables such as sales, adjustment of labour, productivity, wages, profitability, financial sources and investment.

137. In a multivariate analysis based on the early data it was found that state-owned enterprises were significantly more reluctant to reduce the labour force. To some extent this was also the case for majority employee-owned enterprises, because the wage was used as a buffer instead of employment. For upwards adjustments of employment the early results show a tendency to increase employment relatively more in majority employee- and management owned enterprises (Mygind 1997, p. 33).

138. In the large data set for 1997 based on simple averages sales per employee are by far the highest for the group of foreign owned enterprises, and they have also the highest share of exports. Labour-productivity is also the highest for foreign owned companies although the difference is not so significant indicating that foreign owned enterprises only process a relatively small part of the whole value chain in Estonia.

139. Results based on simple averages give a strong weight to large companies, and it does not count for a number of other relevant factors such as size, sector, location, fixed enterprise effects, etc. For Estonia we have made some more sophisticated analysis on total factor productivity including these factors (Jones and Mygind, 1999*c*). The analysis is based on panel-data for the period 1993-1997. Depending on the exact specification of the model the analysis show that private ownership has 13-15 per cent higher factor productivity than state ownership. Majority ownership by foreigners are 19-

21 per cent higher, majority management ownership 15-31 per cent higher, and majority ownership by a broad group of employees 13-24 per cent higher that state ownership. These results are, noteworthy, both because of the high reliability and because standard theory would not expect so high efficiency by insider owned enterprises.

140. The high labour productivity of foreign owned enterprises can to a high extent be explained by the high capital intensity, but if the productivity of capital is relatively low it will turn out as low total factor productivity. The high labour productivity for foreign owned enterprises might also partly be explained by high advantages in recruitment of labour. On average foreign companies pay much higher salaries than their domestic counterparts in the private sector. This was both the case in 1997 and for earlier years. Data for October 1994 on wage levels for different occupational groups shows that both foreign owned and domestic outside owned enterprises had quite high wage levels. The levels for insider owned enterprises were relatively low indicating that they hold back wages in times of trouble (Mygind 1997*a*).

141. Profitability measures for the early years show that insider ownership has quite high profitability, while foreign especially for return on assets are quite low for foreign ownership. However, this might be connected with high levels of assets, which at this point in time have not started to pay off. The surprisingly high profitability measures in Table 20 for state-owned enterprises might be explained by the dominance of some natural monopolies doing quite well in 1997 - e.g. telecommunication and energy. There are no significant differences between domestic and foreign ownership in the private sector.

142. The indicators for investment level in 1997 point out that foreign owned companies take the lead in relation to domestic private enterprises. The high level for public enterprises might again be explained by sector specific factors. Investment data for earlier years for the small sample shows in a multivariate analysis with total assets and number of employees as explanatory variables and with control for branch and location that foreign owned enterprises clearly have the highest investment level (Mygind 1997).

143. On average 80 per cent of the investment were financed by internal funds, but for foreign owned enterprises this percentage was only 64 per cent. Foreign owned companies had a relatively high financing by banks. Insider owned enterprises on the other hand have much less debt and bank loans per employee than the average for the whole group (Mygind 1997).

144. The data for 1997 show that private enterprises have a faster turnover of their assets and a higher debt/equity ratio than state enterprise. Within the private group domestic enterprises have a faster turnover of assets than their foreign counterpart, again indicating that foreign enterprises still not have employed their huge capital assets in the most efficient way. The higher debt/equity ratio in domestic firms compared with foreign ownership can better be explained by low equity than by a high level of debt.

(Table 17. Estonia: Ownership January 1995 (plus Jan. 1997), size 1994, capital intensity time of privatisation.)

(Table 18. Estonia - majority at privatisation by majority January 1997)

(Table 19. Estonia - employee ownership at privatisation by Jan. 1997)

(Table 20. Estonia: economic performance 1997 - large sample)

Table 1. **Small privatisation in Estonia (objects sold by auction)**

	1991	1992	1993	1994	1995	1996	1997	1998	Total
Objects	211[1]	556[1]	252	126	120	84	64	20	1433
Price (million EEK)	1.7[1]	42[1]	128	68	80	149	161	287	917
Average price (1000 EEK)	8[1]	76[1]	508	540	666	1774	2516	14350	678
Average price (1000 1995 EEK)	312	276	970	697	666	1442	1838	3689	659

1. 1991 and 1992 data from Purju 1996, other years from EPA. 1991 price was 18 million Roubles. EPA estimates the total number of object 1991-98 to 1367 for a total price of 893 million EEK.

Table 2. **Overview over large privatisation by tender in Estonia - total**

	1993	1994	1995	1996	1997	1998	Total
Enterprises	54	215	142	43	17	12	483
Price (million EEK)	353	1329	937	474	1295	318	4707
Average price (1000 EEK)	6.5	6.2	6.6	11.0	76.2	26.5	9.7
Total paid by vouchers	0	294	443	134	298[1]	76	1245
Percent paid by vouchers	0 %	22 %	47 %	28 %	23 %	24 %	26 %
Debt taken over (million EEK)	196	700	618	230	416	8	2168
Average debt (1000 EEK)	3.6	3.3	4.4	5.3	24.5	0.7	4.5
Invest. guarantees (m EEK)	237	858	1021	489	1715	281	4601
Average (1000 EEK)	4.4	4.0	7.2	11.3	100.9	23.4	9.5
Job guarantees	9099	25573	17279	127423	2929	72	56226
Average	169	119	122	0	172	6	116

1. 50 % paid by vouchers, excepts the shipping comp. sold for 700 million EEK to Norwegian company.

Table 3. **Large privatisation by tender in Estonia - foreign dominated**

	1993	1994	1995	1996	1997	1998	Total
Enterprises	7	15	5	5	3	6	411
Total price (million EEK)	91	108	77	208	740	215	1439
Average price (1000 EEK)	13	7.2	15.4	41.6	247	35.8	35.1
Percent of total privatised	26 %	8 %	8 %	44 %	57 %	68 %	31 %
Total paid by vouchers	0	0	26	5	20	3	54
Percent paid by vouchers	0 %	0 %	33 %	2 %	17 %	1 %	4 %
Debt taken over million EEK	-	201 2	56	129	109	0	495
Average debt (1000 EEK)	-	13.4	11.2	25.8	36.3	0	12.1
Percent of total privatised	-	29 %	9 %	56 %	26 %	0 %	23 %
Invest. guarantees mEEK	87	131	193	338	1484	134	2368
Average (1000 EEK)	12	8.7	38.6	67.6	495	22.4	57.8
Percent of total privatised	37 %	15 %	19 %	69 %	87 %	48 %	51 %
Job guarantees	1939	2917	1460	54	0	0	6370
Average	277	194	292	11	0	0	155
Percent of total privatised	21 %	11 %	8 %	0 %	0 %	0 %	11 %
Total FDI (million EEK)	2071	2789	2313	1814	3694	7942	20623
Estonians repurchase	-82	-23	-27	-420	-415	-507	-1474
loans, reinvested profits	918	928	1146	1599	2333	2344	9268
in new enterprises	764	639	195	49	52	42	1741
in existing enterprises	470	1239	999	587	1723	6063	11081
FDI-priv.+inv.guarantees	178	239	270	546	2222	349	3807
% of FDI in existing e.	38 %	19 %	27 %	93 %	129 %	6 %	34 %
% of total FDI	9 %	9 %	12 %	30 %	60 %	4 %	18 %

Own calculations based on data from Central Bank of Estonia and EPA.
1. The 41 enterprises divided by nationality of investor: 9 Sweden, 9 Finland, 7 USA, 6 Germany, 2 Denmark, 2 UK and one from each of Canada, Singapore, Holland, Norway, Italy, Russia.
2. of which 197 million EEK for Kreenholm, bought by Swedish investor, most enterprises no debt taken over.

Table 4. **The use of vouchers in Estonia**

Nominal value (million EEK)	1994	1995	1996	1997	1998	Total
Housing	500	1979	660	283	120	3542
Real estate	0	30	204	470	1342	2046
Small enterprises auctions	14	25	75	80	142	336
Large enterprises tenders	16	726	218	490	243	1693
Public offerings	0	704	666	940	0	2310
Compensation fund	26	513	528	252	183	1502
Total	556	3977	2351	2515	2030	11429
Market/nominal voucher value	0.20	0.17	0.18	0.35	0.28	

Based on Ministry of Finance.

Table 17. Estonia: Ownership January 1995 (plus Jan. 1997), size 1994, capital intensity, time of privatisation.

Frequency row percent	State	Majority Outsiders foreign >dom	domestic >f	Insiders managers >e	employees >m	No majority	No answer	Total
TOTAL								
sample at priv.	255(38)	89 (13)	125 (19)	65 (10)	88 (13)	38 (6)	6 (1)	666 (100)
sample Jan. 95	243(36)	96 (14)	144 (22)	83 (12)	74 (11)	26 (4)	0 (0)	666 (100)
whole economy	4383(39)	2204(20)	1861(17)	1064(10)	1232(11)	415 (4)	-	11158(100)
sample Jan. 97	110(17)	86 (13)	145 (22)	106 (16)	52 (8)	17 (3)	150(23	666 (100)
whole economy	621 (5)	3621(31)	2208(19)	2947(26)	1185(10)	974 (8)	-	11556(100)
EMPLOYEES	normalise	whole	economy					
5-19	3315(41)	1823(23)	1226(15)	570 (7)	790 (10)	292 (4)	-	8017(100)
20-99	902(33)	346(13)	500(18)	466(17)	368 (14)	122 (5)	-	2705(100)
100-	166(38)	34 (8)	135(31)	28 (6)	73 (17)	0 (0)	-	436(100)
Average	205	66	118	59	13	26	-	133
25% quartile	13	10	21	20	26	10	-	14
50% median	47	22	59	32	60	22	-	42
75% quartile	128	68	146	62	138	38	-	110
BRANCHES	normalise	whole	economy					1013(100)
agricult.	285(28)	0 (0)	338 (33)	0 (0)	390 (39)	0 (0)	-	576(100)
fish, mine, wood	179(31)	28 (5)	144 (25)	154 (27)	67 (12)	3 (1)	-	642(100)
manu. food etc	126(20)	54 (8)	227 (35)	81 (13)	109 (17)	46 (7)	-	1068(100)
manu. paper et	239(22)	173(16)	361 (34)	121 (11)	94 (9)	80 (7)	-	1222(100)
construction	696(57)	61 (5)	223 (18)	86 (7)	115 (9)	41 (3)	-	4035(100)
trade	1748(43)	1404(35)	255 (6)	255 (6)	343 (9)	29 (1)	-	504(100)
transport	132(26)	99 (20)	116 (23)	75 (15)	17 (3)	64(13)	-	2098(100)
service	977(47)	383(18)	197 (9)	293 (14)	96 (5)	153 (7)	-	
nom. capital /								
employee1000EEK	35	299	34	6	4	13	-	66
average	2	5	2	1	0	0	-	0,7
25% quartile	10	49	8	2	1	1	-	4
50% median	28	141	29	7	5	7	-	22
75% quartile								
Total assets /								
employee1000EEK	412	398	154	44	42	179	-	258
average	19	71	30	15	16	20	-	24
25% quartile	56	161	57	34	35	60	-	54
50% median	122	437	125	61	52	99	-	123
75% quartile								
Year of priv.								
-1990	6 (5)	7 (10)	22 (32)	13 (19)	9 (13)	10(14)	2 (3)	69 (100)
1991	5 (5)	13 (12)	25 (23)	24 (22)	31 (28)	10 (9)	1 (1)	109 (100)
1992	6 (5)	30 (24)	40 (32)	16 (13)	23 (18)	9 (7)	2 (2)	126 (100)
1993	3 (4)	12 (15)	27 (35)	8 (10)	20 (26)	7 (9)	1 (1)	78 (100)
1994	3 (11)	2 (7)	11 (41)	4 (15)	5 (19)	2 (7)	0 (0)	27 (100)
1995 (own ult.)	4 (8)	5 (10)	25 (48)	11 (21)	0 (0)	3 (6)	4 (7)	52 (100)
1996 (own ult.)	14 (45)	2 (6)	7 (23)	3 (10)	0 (0)	1 (3)	4(13)	31 (100)
Total	41 (8)	71 (14)	157 (32)	79 (16)	88 (18)	42 (9)	14 (3)	492 (100)

Table 18. **Estonia - majority at privatisation by majority, January 1997**

Majority at time of privatisation	**Majority January 1997**					**No majority**	**No answer**	**Total**
	State	**Outsiders**		**Insiders**				
		Foreign	Domestic	Managers	Employees			
State	110 (43)	15 (6)	33 (13)	16 (6)	2 (1)	3 (1)	76 (30)	255 (100)
Outsider foreign>domestic	0 (0)	64 (72)	1 (1)	3 (3)	1 (1)	1 (1)	19 (21)	89 (100)
outsider domestic>foreign	0 (0)	2 (2)	79 (63)	14 (11)	3 (3)	2 (2)	25 (20)	125 (100)
insider managers>employees	0 (0)	1 (2)	5 (8)	44 (68)	4 (6)	2 (3)	9 (14)	65 (100)
insider employees>managers	0 (0)	1 (1)	17 (19)	21 (24)	38 (43)	2 (2)	9 (10)	88 (100)
No majority	0 (0)	3 (8)	9 (24)	5 (13)	3 (8)	7 (18)	11 (29)	38 (100)
No answer	0 (0)	0 (0)	1 (17)	3 (50)	1 (17)	0 (0)	1 (17)	6 (100)
Total privatisation	255 (38)	89 (13)	125 (19)	65 (10)	88 (13)	38 (6)	6 (1)	666 (100)
Total Jan. 1995	243 (36)	96 (14)	144 (22)	83 (12)	74 (11)	26 (4)	0 (0)	666 (100)
Total Jan. 1996	162 (24)	89 (13)	155 (23)	94 (14)	71 (11)	21 (3)	74 (11)	666 (100)
Total Jan. 1997	110 (17)	86 (13)	145 (22)	106 (16)	52 (8)	17 (3)	150 (23)	666 (100)

Table 19. **Estonia - employee ownership at privatisation by January 1997**

Time of privatisation Employee shares	January 1997 0%	0-5%	5-10%	10-30%	30-50%	50-100%	100%	No data	Total
0%	332 (67)	13 (3)	5 (1)	14 (3)	5 (1)	4 (1)	0 (0)	126 (25)	499 (100)
0-5%	2 (20)	6 (60)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (20)	10 (100)
5-10%	1 (14)	2 (29)	1 (14)	0 (0)	1 (14)	0 (0)	0 (0)	2 (29)	7 (100)
10-30%	4 (15)	0 (0)	3 (19)	15 (27)	0 (0)	0 (0)	0 (0)	4 (15)	26 (100)
30-50%	0 (0)	1 (4)	4 (17)	6 (25)	5 (21)	3 (13)	0 (0)	5 (21)	24 (100)
50-100%	6 (7)	5 (6)	3 (4)	19 (22)	19 (22)	25 (29)	0 (0)	8 (9)	85 (100)
100%	0 (0)	0 (0)	0 (0)	0 (0)	2 (22)	3 (33)	2(22)	2 (22)	9 (100)
No data	3 (50)	0 (0)	0 (0)	1 (17)	0 (0)	1 (17)	0 (0)	1 (17)	6 (100)
Total at priv.	499 (75)	10 (2)	7 (1)	26 (4)	24 (4)	85 (13)	9 (1)	6 (1)	666 (100)
Total Jan. 1995	476 (71)	25 (4)	11 (2)	52 (8)	34 (5)	61 (9)	7 (1)	0 (0)	666 (100)
Total Jan. 1996	409 (61)	23 (3)	17 (3)	49 (7)	35 (5)	50 (8)	6 (1)	77 (12)	666 (100)
Total Jan. 1997	348 (52)	27 (4)	16 (2)	55 (8)	32 (5)	36 (5)	2 (0)	150 (23)	666 (100)

Table 20**. Estonia: economic performance 1997 - large sample**

	State	Municipal	Domesticpriv ate	Foreign private	Total
Active enterprises	206 (1)	440 (2)	25253 (91)	1728 (6)	27627 100
Number of employees	43599 (11)	18664 (5)	302183(75)	38167 (9)	402613 100
Average number of employees	211	42	12	22	15
Net sales 1995 (million EEK)	16805 (15)	3146 (3)	74205 (65)	17431 (16)	111588 100
Net sales 1997 (million EEK)	13489 (7)	4412 (2)	128901(71)	33816 (19)	180618 100
Sales per employee (1000 EEK)	309	237	427	886	449
Percentage export	18%	1%	22%	31%	23%
Value added (million EEK)	4069 (15)	952 (3)	17981 (66)	3961 (15)	27217 100
Value added per employee	93	51	60	104	68
Staff cost per employee	78	58	48	80	55
Total assets (million EEK)	14401 (13)	6456 (6)	71494 (63)	20819 (18)	113171 100
Total assets/employee ultimo	330	346	236	545	281
Tangible assets/employee ult.	208	259	88	226	122
Change in tangible assets be-fore depreciation per employee	26	50	33	52	35
New tangible assets per empl.	76	87	29	59	40
New plant and equipment/empl	25	24	12	21	15
Increase of fixed assets %	8	18	40	22	27
Return on equity	11.5	-0.7	8.9	8.5	8.6
Return on total assets	7.8	-0.4	3.2	3.4	3.7
Gross profit to net sales	15.7	14.8	10.7	11.6	11.3
Asset turnover	1.01	0.74	2.17	1.81	1.85
Debt/equity	0.48	0.75	1.96	1.52	1.47

Based on ESA - Statistical Office of Estonia, Financial Statistics of Enterprises 1997, I.
12 148 enterprises were surveyed.
State and municipal and larger private were included 100%, while a sample was drawn from the smaller ones.
Simple averages - a few large companies have a relatively high weight**.**