SECTOR PERFORMANCE IN THE SLOVENE ECONOMY: WINNERS AND LOSERS OF EU INTEGRATION

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WORKING PAPER No. 5, 2000

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Editor of the WP series: Peter Stanovnik

Ljubljana, Avgust 2000

[1] Paper is based on the study “Industrial Growth and Structural Changes in the Associated Countries -The Case of Slovenia” (Majcen, 1998), prepared for the research project "Trade Between the European Union and the Associated States: Prospects for the Future", ACE Research Programme 1996 (Project number P96-6148R).

1. INTRODUCTION

After the Second World War Slovenia (as a part of the former Yugoslavia) practiced the so-called market planned economic system with an inward-looking, import-substituting development strategy with a highly protected domestic market. The basic characteristics of this system were the social ownership of business enterprises, worker self-management and a peculiar financial system. The market-planned economy functioned somewhat better than the central planned economies through decentralised decision making. The system was further characterised by a redistribution of wealth among enterprises, relatively high inflation rates and the inflow of foreign capital through loans. The foreign capital was allowed to make inward investments only through contractual joint ventures. Nevertheless, the share of foreign direct investment compared to the total value of fixed assets in the economy did not exceed 1% (Stanovnik and Lapornik, 1993). The efficiency of the system was decreasing, especially from the beginning of the eighties. There were several unsuccessful attempts to reform the socio-economic system and at the end of eighties, apart from the initiation of a rapid trade liberalisation process, several proposals emerged to abolish the social ownership of business enterprises.

After separation from Yugoslavia in 1991 Slovenia faced another shock - in the middle of the first stage of a very quick foreign trade liberalisation process the large domestic market almost disappeared, followed by the radical restructuring of Slovene sales. Sales to other republics of the former Yugoslavia decreased from 6.662 millions USD in 1990 to only 1.387 millions USD in 1996, while the exports to other countries increased from 4.118 millions USD to 6.919 millions USD.[2] The Slovene economy, and above all the manufacturing sector, faced the need for the rapid reorientation of non-domestic sales and a change to an export-oriented development strategy. As a consequence a number of enterprises got into severe trouble: with a much smaller domestic market import-substitution oriented enterprises were not able to export at lower than cost-covering prices. The economy was faced with the absolute necessity for a major macro-economic restructuring of its manufacturing sector.

The necessity of redirecting sales to foreign markets, and of simultaneously opening the home market to foreign competition, also resulted in the intensive efforts of Slovenia to join international organizations and European integration processes. All these developments undoubtedly raise a number of questions regarding the capability of the Slovene economy to survive increased foreign competition, the achievement of sustained export expansion, and

[2] *The main decrease was experienced during the period 1990-92 when the sales decreased to 1.508 millions USD; source - estimates of the Institute of Macroeconomic Analysis and Development and data from the Statistical Office of the Republic of Slovenia.*

thus also long term economic growth as result of its current specialisation. Several western studies prepared on the trade pattern between the EU and CEE countries and their structural changes relied on the foreign trade data, following different approaches. Analyses of comparative advantages indicated that CEE countries are specialised in labour and energy intensive industries and have comparative disadvantage in capital intensive, skilled labour intensive (or human capital intensive) and R&D intensive industries (European Economy, 1994; Landesmann, 1995, 1996, 1998). Foreign trade liberalization, together with a collapse of the ex-CMEA market forced these countries towards a trade re-orientation and a new pattern of specialization in labour intensive industries and a decline in capital-intensive ones.[3] At the same time the process of catching up could be observed, with strong increases in intra-industry trade with the EU and a decline in strong patterns of inter-industry specialisation, together with a growing differentiation among the CEE countries (Landesmann, 1995). Several other analyses of intra-industry trade in the light of the new theories of international trade which emphasize the growing importance of trade in similar or differentiated products (Lemoine, 1994; Landesmann, 1996, 1998; Neven, 1995; Lemoine and Freudenberg, 1998; Freudenberg, 1998) showed that intra-industry trade has been developing much faster than total trade between CEE countries and the EU, that the most important part of this trade is trade in differentiated products (vertical intra-industry trade), and that their exports are concentrated in low and medium quality products. Increasing research efforts could also be found on the role of the outward processing and FDI in the restructuring processes of the CEEC. Although no correlation was found between FDI and the sector export performance, the authors (Hoekman and Djankov; 1997) concluded that FDI is going into industries where countries do not have a revealed comparative advantage. These findings were also recently confirmed for Slovenia and Poland (Marczewski, 1998; Rojec, 1998; Majcen; 1998).

The present paper goes a step further using, besides trade data (with the EU and the rest of the world), also data on the company level on production, assets, exports, employment, profit/loss and FDIs. It investigates the effects of trade reforms and the initiated process of structural change through the analysis of the factor content of production and trade in order to infer relative factor endowments and associated comparative advantage in the manufacturing sectors of Slovene industry. The role of foreign direct investment in this process is also analysed. The next section explains the necessary statistical data requirements and the problems connected with the different (and changed) nomenclatures as well as the preparation of tables of concordance between them. In the third section a classification of 3-digit industrial sectors according to the factor content was performed and analysed. The final section presents some concluding remarks.

[3] *See Table 7.3 in Landesmann (1995).*

2. STATISTICAL DATA AND METHODOLOGICAL ISSUES

Regarding the different statistical data required to perform the necessary analyses we used different data sources. The primary source for the trade data was the Statistical office, based on data from the customs office, covering registered trade. They gave us data for the period from 1992 to -97 (first nine months) in the national currency and USD (current prices), together with the paid import duties (tariffs, levies and other import duties), separately for each country, for regular exports/imports and for four possible types of inward and outward processing. As for the period 1992-95, utilised commodity classification was based on Harmonised system extended to a 9 digit national classification, and for the period from 1996 a classification based on the Combined nomenclature was used. We had to prepare and use three different concordance keys to the NACE rev. 1 industry code. There remains an inherent problem of classifying CN (HS) items into NACE industries, as the former nomenclature concerns products and the latter activities.

The "product/activity" problem is even worse concerning the comparison of trade and output data, value added, wages and FDI. This was the reason why we gathered output data from two sources: a) commodity classification - based on an industrial survey (so-called IND 21) prepared by the Statistical office and; b) activity classification - based on income statement sheets. Both data went through changes of classification. The Industrial survey data were available only for the period 1992-95 - for the period 92-94 the 10-digit Industrial classification, based on the Unified Classification of Activities (UCA), was used; for the year the 1995 Industrial Products Nomenclature, based on the Standard Classification of Activities (SCA, the same as NACE rev.1), was used. The data covered quantities of projected and actual production as well as the value of sales for each particular product. From the income statements sheets for the period 1992-96 it was possible to get data on the value of sales based on the UCA (period 92-94) and on NACE rev. 1 (period 95-96). Additional problems were caused by completely new income statements sheet from the 1994 on.

In the second stage we had to sum primary data from both sources to the 3-digit and 2-digit NACE rev.1 levels. With the help of the people from the Statistical office we prepared a concordance key between the Industrial Classification based on UCA and NACE rev. 1. The income statement sheets were a far more complicated and questionable problem because we had to find concordance between each firm code in the year 1995 and previous years. Additional problems were non-existing new codes for the firms operating in the period 92-94 but not in 1995. For several hundred firms we had to find corresponding NACE rev. 1 codes manually.

Income statement sheets were also used for the data on value added, gross wages, employment and FDI where the second source was The Bank of Slovenia. We defined FDI using the OECD benchmark definition of 10% or higher foreign equity share. Accordingly, a less than 10% foreign equity share characterises foreign portfolio investment. All data are in the national currency, tolars (at current prices).

The fact is that since independence, and regarding crucial changes in statistical classifications, there has been no previous similar attempt to prepare statistical data on such a level of disaggregation. We tried to prepare data which is as good as possible for the whole period 1992-96, but the results from the income statements sheets reveal the fact that changes after 1994 were so great that it is better not to use some data (value added) from the sheets before that year.

3. SECTOR PERFORMANCE AND FACTOR INTENSITY OF SLOVENE INDUSTRY

Analyses of the foreign trade liberalisation process undoubtedly reveal the fact that the producers in manufacturing, energy and mining have already experienced the main shock in the period 1986-1993, accompanied by the forced rapid reorientation from domestic to foreign markets (Majcen, 1995). Manufacturing industry output decreased together with capacity utilisation and employment. Initiated market reforms and stabilisation policies forced enterprises onto the path of structural adjustment which is also reflected in the pattern of manufacturing output, trade and their changes in the observed time period. One could find industries with growing shares in output, exports and imports (motor vehicles, furniture), or industries with decreased shares in total output but with an increased share in exports (basic metals, metal products and machinery), and also traditional industries still with negative trends but with growing import shares (textiles, wearing apparel, dressing of leather). A rather specific position is that of the food and beverages industry - increased protection resulted in a lower import share and a stable output share but also a decreased export share and a sharply deteriorated trade balance.[4]

Although it seems that Slovenia has relatively successfully accomplished the first phase of transition and is on the way to economic recovery, it is still facing a number of serious challenges. Reform of the pension system and of the tax system is absolutely essential. The further reduction of inflation, the curtailment of the growth of wage and labour costs to below the productivity growth, and further trade liberalization, are necessary to increase export competitiveness. The process of privatisation is only in the first, formal phase in

[4] *The pattern of manufacturing output, trade and domestic demand and their changes in the 90's is more thoroughly presented in Majcen (1998, section 4., p. 20-37)*

which the enterprises acquire their new owners. This is still far from the "normal" ownership structure which should develop in future. The fact is that the privatisation process has, in a number of enterprises, postponed the necessary restructuring for the increase of the national competitive advantages of a country highly dependent on export markets. An increasing deficit in the foreign trade balance suggests that enterprises (with some exceptions) have difficulties in keeping their export competitiveness on the basis of the present export pattern and the structure of the manufacturing sector.

In this section the pattern of industrial growth and the role of foreign direct investment is analysed in the light of specific sector factor intensities. Namely, for assessing the future industrial specialisation of countries in transition, it is important to identify the factor content of the sectors that are leading industrial growth, as well as the factor content of the lagging sectors.

3.1. Methodology and data used

Studies of the inter-industry patterns of trade specialisation in CEE countries followed two approaches, both based on Western factor intensities and at NACE 3-digit level:

a) Ranking of industrial sectors based on production statistics for EU economies according to the measures of factor intensities provided by the European Commission for the Report "Economic Interpenetration between the EU and Eastern Europe" (Economic Commission, 1994; Dobrinsky and Landesmann, 1995; Landesmann, 1998). The patterns of trade were examined with respect to a common ranking of industrial sectors in terms of capital-, labour-, R&D-, skill- and energy intensities.
b) Classification of industrial sectors according to factor intensities using a cluster analysis which groups sectors in homogenous classes (Neven, 1995). Results for Germany with five industrial groups were used for grouping industries in CEE countries into high-tech-, human capital-, labour-, capital and labour intensive and food-processing industries.[5]

The drawback of both procedures is that we are not analysing the actual factor intensities of CEEC's trade flows with the EU since individual countries' actual factor contents might deviate from used common measure. Secondly, the use of rankings of industries according to the level of one particular factor intensity indicator does not allow for the classification of

[5] *Factor intensities were characterised for about 140 sectors (using the old NACE three digits and some four digit sectors), using the following variables: the share of wages in value added; the level of investments as a percentage of value added; the average total compensation per worker; and the share of blue-collar workers in the total number of employees. Since some of these variables are flows intended to proxy the corresponding stock, the average flow for the years 1985-90 were used.*

individual sector into only one group.[6] Thirdly, both procedures are based on the old NACE 3-digit classification, which could not be exactly transformed into the NACE rev. 1 3-digit level classification adopted and used in CEE countries - a fact that did not allow us to use them when analysing the pattern of industrial growth in the light of specific sector factor intensities.

We thus decided to use the second approach together with the data for Slovene industry. The analysis was carried out at the NACE rev. 1 3-digit level of output, exports and imports with the results brought together using different indicators. We followed the methodology used by Neven (1995) which is based on a cluster analysis, a multivariate procedure for detecting groupings in the data.

Factor intensities were characterised for NACE 3-digit level industrial sectors, using the following variables: fixed assets per employee (ASSEMPL), fixed assets per unit of value added (ASSVA), number of workers per unit of production (10*6 SIT, EMPLOUT), gross wages as percentage of value added (WVA), average gross wage per worker (WEMPL), workers with more than 14 years of school as a percentage of the labour force (OVER14), average number of years of school (YSCHOOL), non-manual labour as a percentage of the total labour force (WHITE), and R&D expenditures as percent of production (R&D). As Slovenia is one of the countries in transition, and according to the data available, we used three years average values (1994-96), for the proxy variables of human capital intensity the available data for the year 1995, and for the R&D intensity variable we used two years average values (1995-96). A high level of fixed assets per employee and a high level of fixed assets per unit of value added are meant to represent a high capital intensity. A high percentage of workers with more than 14 years of education together with a high number of years of school education and a high percentage of non-manual labour are meant to pick up industries intensive in human capital. With high R&D expenditures we tried to establish which industries are R&D intensive, and, finally, a high number of workers per unit of production, together with a high share of gross wages in value added and low average gross wages per worker are meant to represent labour-intensive industries.

These nine variables have been computed for all industries. Since the scales for the variables used in the analysis differ markedly, and thus contribution to the calculations of distance measures depends also on the magnitude of different scales, we had first to avoid this problem through the transformation of all variables on the same scale. Transformation of the

[6] *The authors (see for example Landesmann, 1995, Tables 7.3. and 7.3b) compared the shares of total exports to the EU of the 10, 20, 30 most capital-, labour-, energy, R&D- and skill intensive industries and differences of these shares compared to the average representation in total EU imports. Revealed comparative advantage and intra-industry trade indicators were also calculated.*

variables to z scores was used - the variables were rescaled to have mean 0 and standard deviation 1. In order to allow for the possibility that factor intensities may differ across industries, we have applied a clustering procedure, which grouped the industrial sectors in four homogenous groups.[7]

3.2. Basic characteristics of identified groups of industrial sectors

Table 1 reports the deviations of means of the standardised variables for each cluster from the overall means. The means for each cluster define the cluster center. From the table it follows that the average number of over 14 years of school (OVER14) for cluster 2 is 0.43 standard deviation units below the mean for all industries, while the average for cluster 4 is 2.58 standard deviation units above the overall mean. These results were used to characterise four clusters.

Table 1: Final Cluster Centers

Variables	Cluster			
	1	2	3	4
Zscore (OVER14)	1.02885	-.42872	.14832	2.57955
Zscore (YSCHOOL)	.75504	-.34308	.06535	2.23844
Zscore (WHITE)	1.20438	-.31979	.14409	1.52735
Zscore (R&D)	4.35540	-.17510	-.15066	-.31358
Zscore (EMPLOUT)	-.14119	.34688	-.84370	-.64971
Zscore (WVA)	-.17301	.06660	-.49520	-.01587
Zscore (WEMPL)	1.16529	-.46111	.77841	1.21603
Zscore (ASSVA)	-.69882	-.27317	.99376	-.22382
Zscore(ASSEMPL)	-.00815	-.47191	1.48774	.04403

Source: income statements sheets, Statistical Office, authors' calculations

The first cluster is characterised by above average values of proxy variables for human capital and especially R&D expenditures, together with high average gross wages per employee and below average values for the variables representing labour and capital intensity. We can conclude that it represents R&D and human capital-intensive industrial

[7] *During the process of clustering some evident outliers were found and deleted from the further calculations. As it will be evident from the results that they represent, together with the sectors with missing or non-existent data, only a small part of industrial production, exports and imports (in the year1995 0.0%, 0,07% and 0.8% respectively).*

sectors and is completely determined with four sectors with the highest R&D expenditures as percent of production (above 5%). [8]

The second cluster reveals the above average means for the standardised variables EMPLOUT and WVA (with all other means below the overall average) and thus represents the labour-intensive industries. In this cluster 65 industrial sectors were classified, revealing the high importance of labour -intensive sectors in the Slovene economy.

The third cluster, which is capital intensive, is characterised by a relatively high level of assets per employee, assets per unit of value added and gross wages per employee. Additionally, sectors classified in this cluster also reveal above average levels of education and non-manual workers as a percentage of the total labour force.

The fourth cluster is characterised by relatively high levels of education and gross wages per employee - it represents industries intensive in human capital. It is quite surprising that R& D expenditures in this cluster are below the overall mean. From the below average values of the variables representing labour intensity and the above average value of fixed assets per employee, we cannot conclude that these industries are also characterised by capital intensity.

Altogether 98 NACE Rev. 1 3-digit industrial sectors have been classified. Six sectors were not included due to the lack of data, non-existent production or problematic data figures - their shares in production and exports are negligible. Regarding the number of cases in each cluster we have already seen that the greatest is the second cluster with 65 cases representing labour intensive industries. The third cluster with 21 cases representing capital-intensive industries is in second place, followed by the fourth cluster with 8 cases and the first with only 4 cases. In the next chapter the importance of industries in particular clusters will be analysed, supplemented by an analysis of sector performance.

3.3. The importance of industrial groups and their economic performance

The aggregated values of particular variables are shown in table 2 pointing to the importance of groups of industrial sectors.[9]

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[8] *We found another 11 sectors with above average R&D expenditures (average expenditures in the years 1995-96 were 0.88% of the value of production) - all these sectors were mainly classified into the second cluster (7) representing labour- intensive industrial sectors, the other being classified into the capital intensive group. It would be certainly interesting to analyse these sectors separately within the two groups.*

[9] *Sector classification into particular industrial groups and some important indicators can be found in the Appendix.*

Table 2: Importance of industrial groups in the period 1992-95 (shares %, changes %, or differences)

	OUTPUT			DOMESTIC DEMAND			TR.BAL/OUTPUT		
	1992	**1995**	**95/92**	**1992**	**1995**	**95/92**	**1992**	**1995**	**95-92**
1 CAPITAL INTENSIVE	26.0	28.8	111	29.53	32.47	110	-0.047	-0.180	-0.133
2 R+D AND H. CAP. INTENSIVE	5.5	5.8	105	4.57	4.47	98	0.239	0.191	-0.048
3 LABOUR INTENSIVE	62.1	59.6	96	56.02	53.55	96	0.170	0.059	-0.111
4 HUMAN CAPITAL INTENSIVE	6.3	5.8	92	9.61	9.27	96	-0.402	-0.665	-0.263
99 OTHER	0.0	0.0	0	0.28	0.24	87			
TOTAL	100.0	100.0	100	100.00	100.00	100	0.079	-0.047	-0.126
	EXPORTS			**IMPORTS**			**CONTRIB. TO T.BAL.**		
	1992	**1995**	**95/92**	**1992**	**1995**	**95/92**	**1992**	**1995**	**95-92**
1 CAPITAL INTENSIVE	26.2	29.0	111	33.1	35.4	107	-6.877	-6.408	0.469
2 R+D AND H. CAP. INTENSIVE	6.5	7.5	115	4.8	5.1	105	1.682	2.446	0.764
3 LABOUR INTENSIVE	63.9	60.8	95	52.3	50.1	96	11.510	10.661	-0.850
4 HUMAN CAPITAL INTENSIVE	3.3	2.7	80	9.2	9.0	97	-5.844	-6.280	-0.436
99 OTHER	0.1	0.1	81	0.5	0.5	88	-0.471	-0.418	0.052
TOTAL	100.0	100.0	100	100.0	100.0	100	0.000	0.000	0.000
	EXPORTS (EU12*)			**EXPORTS (EU15*)**			**EXPORTS (OTHER)**		
	1992	**1995**	**95/92**	**1992**	**1995**	**95/92**	**1992**	**1995**	**95/92**
1 CAPITAL INTENSIVE	26.8	30.4	113	26.9	30.4	113	25.1	25.9	103
2 R+D AND H. CAP. INTENSIVE	2.9	3.2	110	2.8	3.2	115	12.4	16.6	134
3 LABOUR INTENSIVE	67.9	64.4	95	67.8	64.4	95	57.7	53.1	92
4 HUMAN CAPITAL INTENSIVE	2.3	1.9	83	2.4	1.9	78	4.7	4.3	91
99 OTHER	0.1	0.1	85	0.1	0.1	78	0.1	0.0	79
TOTAL	100.0	100.0	100	100.0	100.0	100	100.0	100.0	100
	IMPORTS (EU12*)			**IMPORTS (EU15*)**			**IMPORTS (OTHER)**		
	1992	**1995**	**95/92**	**1992**	**1995**	**95/92**	**1992**	**1995**	**95/92**
1 CAPITAL INTENSIVE	30.1	34.3	114	32.2	35.0	109	34.78	36.32	104
2 R+D AND H. CAP. INTENSIVE	3.8	4.2	109	4.2	4.6	111	6.12	6.29	103
3 LABOUR INTENSIVE	58.6	56.5	96	55.8	55.1	99	45.78	37.41	82
4 HUMAN CAPITAL INTENSIVE	7.3	4.9	68	7.7	5.1	67	12.11	18.71	154
99 OTHER	0.2	0.2	104	0.2	0.2	86	1.21	1.26	105
TOTAL	100.0	100.0	100	100.0	100.0	100	100.00	100.00	100
CONTRIB.TO TRADE BALANCE	**EU12***			**EU15***			**OTHER**		
	1992	**1995**	**95-92**	**1992**	**1995**	**95-92**	**1992**	**1995**	**95-92**
1 CAPITAL INTENSIVE	-3.302	-3.855	-0.553	-5.344	-4.584	0.760	-9.495	-10.430	-0.935
2 R+D AND H. CAP. INTENSIVE	-0.879	-0.913	-0.034	-1.341	-1.358	-0.017	6.145	10.351	4.206
3 LABOUR INTENSIVE	9.227	7.896	-1.332	12.034	9.283	-2.751	11.725	15.697	3.972
4 HUMAN CAPITAL INTENSIVE	-4.971	-3.034	1.937	-5.236	-3.237	2.000	-7.241	-14.397	-7.156
99 OTHER	-0.075	-0.093	-0.018	-0.113	-0.104	0.009	-1.134	-1.221	-0.087
TOTAL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	EXPORTS/OUTPUT			**IMPORTS/DDEM**					
	1992	**1995**	**95/92**	**1992**	**1995**	**95/92**			
1 CAPITAL INTENSIVE	0.559	0.552	99	0.58	0.620	107			
2 R+D AND H. CAP. INTENSIVE	0.655	0.714	109	0.55	0.646	118			
3 LABOUR INTENSIVE	0.570	0.560	98	0.48	0.533	110			
4 HUMAN CAPITAL INTENSIVE	0.291	0.251	86	0.49	0.550	111			
TOTAL	0.555	0.549	99	0.52	0.569	110			

* exports/imports to the (from the) EU12/EU15 for the whole period 92-95
other = total exports/imports less the exports/imports to the EU15 for the whole period 92-95
Source: Statistical office, author's calculations

The most important group is certainly the group of labour intensive industries with a 60% share in the industrial output and also in total exports, 56% share in fixed assets, 75% share of the labour force, and an above 60% share in value added.[10] The importance of labour intensive industries in exports is even greater if we look at the export shares with the EU, showing a positive, but decreasing trade balance. These industries are also characterised by having a below-average labour education, below average R&D expenditures (on average only 0.37% of production in R&D expenditure, and 26% of total expenditures), and below average wages and fixed assets. Their export orientation is on average stable and only slightly above the overall average, their import penetration ratio is increasing and is following a general trend which is certainly the result of the trade liberalisation process and the lost former domestic market. This process is also confirmed by the fact that increased domestic demand was covered mainly by increased imports and to a lesser extent by the net domestic output. In the observed period (1992-95,97) labour intensive industries were losing their shares in all variables.

The second most important group with capital intensive industries has a 28% share in total output and exports, a 33% share in fixed assets, a 15% share in the labour force, and a 20% share in value added. These sectors also exhibit above-average values for the proxy variables of human capital intensity, and surprisingly low R&D expenditures as a percentage of production (on average only 0.35% but with 4 industries above 1%; and 12% of total expenditures). Structural changes could also be found in this group - capital-intensive industries are gaining in importance with the only exception being the share of exports to the other countries.

The remaining two groups are far less important but have a very interesting pattern in the observed period. As we have already seen the group with R&D and human capital-intensive industries contains only four industries with higher than average R&D expenditure (on average 6.5% of production and 62% of total expenditures!) and above average values for the proxy variables of human capital intensity. They have about 6% of output, 8% of exports and fixed assets, 6.5% of the labour force, and 11% of value added. On the export side we can observe about a 3% (and stable) share in total exports to the EU, and a much higher and fast growing share in total exports to the other countries (18% in the year 1997).

The main reason could be found in the fast growing exports of pharmaceuticals to the East European countries and countries of former Soviet Union. The overall trade balance for this group is positive with a positive trend, the trade balance with the EU being negative and deteriorating further. This industrial group reveals the highest specialisation and export

[10] *Data for fixed assets, labour force and value added are from the firm level data and are not reported in Table 2.*

orientation - almost 74% of the increased domestic demand in the observed period was covered by increased imports and almost 80% of increased production was sold abroad.

The last group, characterised as the human capital-intensive group, has about 6% of output, 3.6% of exports, 3% of fixed assets and of the labour force, and 5% of value added. The differences and changes in the export shares regarding the EU and other countries again exist but they are not as remarkable as for the previous group. The overall trade balance is negative and deteriorating. This group exhibits the lowest, and decreasing, export orientation, increased import penetration with imports covering 60% of increased domestic demand, and increased production mainly sold on the domestic market (80%).

Grouping industrial sectors according to their factor intensities helped us to evaluate the factor content of trade in order to infer relative factor endowments and associated comparative advantage. As an indicator of comparative advantage the "contribution to the trade balance" measure was used (Lemoine and Freudenberg, 1998, p.11-12) which "...compares the country's actual trade balance for a given commodity to the "expected" trade balance for this commodity". Table 2 shows that comparative advantages are found in labour intensive and R&D and human capital intensive industry groups where large and positive trade imbalances are observed. On the other hand comparative disadvantages lie in the capital intensive and human capital-intensive groups. If we observe trade with the EU Slovenia exhibits comparative advantages only in the labour intensive industry group, thus indicating that the overall positive contribution to the trade balance found in the R&D and human capital intensive industry group is the result of strong comparative advantage towards the other countries not in the EU (mainly the East European countries and countries of the former Soviet Union). [11]

Different changes in the pattern of comparative advantage since 1992 can be observed if we compare indicators of contributions to the trade balance with the EU and other countries. In the case of trade with the EU the comparative advantage in labour-intensive industries is reduced over time, mainly as a result of a loss of competitiveness and a

[11] *One could find interesting and similar results for Slovenia also in Landesmann (1998) who used the first approach.*

slowing down of export performance.[12] At same time we can observe decreased comparative disadvantages in capital and human capital intensive groups achieved through an acceleration of exports and decreased shares in exports and imports respectively. The increased comparative disadvantage in the R&D and human capital intensive industry group has been the result of import trends.

In the case of trade with other countries the specialisation in both the labour intensive and in the R&D and human capital-intensive industry groups is increased over time. The R&D and human capital-intensive industry group has increased its share in the export structure with a slightly decreased import share. On the other hand the labour intensive group exhibits decreased export and import shares. The comparative disadvantages of the capital intensive group has an increasing trend, and the human capital intensive group has a large increase in comparative disadvantages achieved through an acceleration of imports.

3.4. Industrial growth and factor intensities

Individual industrial sectors, forced on the path of structural adjustment by the initiated market reforms and stabilisation policies, reacted quite differently. Identification of the factor content of the sectors that are leading industrial growth and of the lagging sectors is certainly very important when assessing the future industrial specialisation of Central European countries. However, regarding the short period we have observed and the process of structural adjustment, one should be very careful when analysing short-term changes in the pattern of output and trade. Growing shares in output could result due to the absence of any restructuring process in these sectors and severe restructuring processes in the other sectors with the closing down of unprofitable and non-competitive production lines (and perhaps keeping the production already competitive in domestic and foreign markets). Or, they are the result of specialisation processes and reorientation towards foreign markets.

According to the available data and the time period, additional groupings of sectors within four industrial groups were prepared. The aim was to assess the importance of particular sectors within groups whose output share in the total output increased in the observed period. Summary results are presented in Table 3.

[12] *We could not find the process of catching up for these industries through decreased inter-industry specialisation and increased intra-industry specialisation, namely, the GL index (calculated with the NACE 3-digit level of aggregation) was quite stable (0,689/92 - 0,702/95). Landesmann (1998) rankings of the first 30 most labour intensive Slovene industries showed higher increases in GL index.*

Table 3: Some characteristics of the 3-digit sectors within industrial groups according to the growing or declining output shares

INDUSTRIAL GROUP	EXPORTS/OUTPUT			IMPORTS/D.DEMAND			CONTRIBUTION TO TRADE BALANCE			D. DEMAND (92-95) CONTRIBUTION*	
	92	95	95/92	92	95	95/92	92	95	95-92	NET. OUTPUT	IMPORTS
1 CAPITAL INTENSIVE	**0.559**	**0.552**	**99**	**0.579**	**0.620**	**107**	**-6.878**	**-6.408**	**0.469**	**35.0**	**65.0**
+	0.573	0.552	96	0.609	0.629	103	-7.629	-6.757	0.872	35.8	64.2
-	0.498	0.551	111	0.412	0.547	133	0.752	0.349	-0.403	24.6	75.4
2 R+D AND H. CAPITAL INTENSIVE	**0.655**	**0.714**	**109**	**0.547**	**0.646**	**118**	**1.682**	**2.446**	**0.764**	**26.1**	**73.9**
+	0.758	0.724	95	0.714	0.706	99	0.160	0.427	0.268	30.0	70.0
-	0.610	0.709	116	0.462	0.605	131	1.522	2.019	0.497	22.3	77.7
3 LABOUR INTENSIVE	**0.570**	**0.560**	**98**	**0.483**	**0.533**	**110**	**11.510**	**10.661**	**-0.850**	**41.8**	**58.2**
+	0.612	0.524	86	0.542	0.490	90	2.929	4.807	1.877	54.4	45.6
-	0.549	0.587	107	0.452	0.564	125	8.581	5.854	-2.727	28.9	71.1
4 HUMAN CAPITAL INTENSIVE	**0.291**	**0.251**	**86**	**0.494**	**0.550**	**111**	**-5.844**	**-6.280**	**-0.436**	**39.7**	**60.3**
+	0.389	0.319	82	0.532	0.530	100	-1.893	-2.139	-0.246	47.1	52.9
-	0.226	0.176	78	0.472	0.566	120	-3.951	-4.142	-0.191	31.2	68.8
99 OTHER	1.136	0.000	0	1.018	1.122	110	-0.471	-0.418	0.052	-24.4	124.4
TOTAL	**0.555**	**0.549**	**99**	**0.517**	**0.569**	**110**	**0.000**	**0.000**	**0.000**	**38.4**	**61.6**

* Contribution of net output and imports to changes in domestic demand in the period 1992-95 (%)
+ sectors with increased shares in total manufacturing output in the period 1992-95
- sectors with decreased shares in total manufacturing output in the period 1992-95
Source: Statistical Office (product level data), author's calculations

Sectors within groups whose output share in the total output increased ("+") in the observed period 1992-95 have, on average, higher and decreasing export/output ratios, and higher import penetration ratios (which are increasing in the capital intensive group, decreasing in the labour intensive group, and are stable in the two remaining groups), compared with the sectors whose output share in total output decreased. These sectors are thus more opened to foreign competition and they succeed in increasing output shares - declining export/output ratios point to the fact that they are gradually losing competitiveness on foreign markets.

In the capital intensive industrial group "+" sectors succeeded in increasing output and export shares and thus decreasing their negative contribution to the trade balance despite high and increasing import penetration ratios, export/output ratios show a declining trend. Remaining sectors with declining output shares are characterised by rapidly increasing import penetration ratios with imports substituting domestic products, but also with increasing export/output ratios. These sectors, faced with increased foreign competition, are making restructuring efforts through the abandonment of non-competitive production while retaining production which is competitive on foreign markets.

In the R&D and human capital intensive industrial group sectors with increasing output ratios we found the highest (but stable) import penetration ratios - growth in domestic demand was covered mainly through increased imports, and production showed specialisation and orientation towards foreign markets. A positive and increased

contribution to the trade balance only additionally supports these conclusions, but a decline in the export/output ratio again reveals growing difficulties with export competitiveness. Sub-groups with declining output ratios are characterised by restructuring processes: closing down non-competitive production and expanding production oriented towards foreign markets; a rapidly increasing import penetration ratio; and an increasing export/output ratio.

We have already stated that the most important labour intensive industrial group is losing its share in all analysed variables. Closer examination of "+" sectors within the group revealed the fact that less than 50% of increased output went to cover increased domestic demand, and that lower growth rates of exports (relative to the growth rate of output) and imports (relative to the domestic demand) contributed to decreased export/output and import penetration ratios and an increased positive contribution to the trade balance. The pattern of the "-" sub-group showed similar trends to the former two sub-groups with a decreased positive contribution to trade balance and thus a loss in comparative advantages.

We can conclude that sectors in the sub-group with increasing output shares succeeded in increasing their output and export shares despite high and increasing import penetration, but with growing difficulties in keeping export/output ratios, especially within labour intensive sectors. Traditional revealed comparative advantages found in the labour intensive industrial group increased further in this sub-group. The sub-group with decreasing output shares is characterised by very high shares in the output and exports of the labour intensive industrial group. Rapidly increasing import penetration ratios found in all sub-groups with high contribution of imports to changes of domestic demand reveal the forced restructuring process in these sectors - decreasing (or closing down) production of non-competitive products (decreasing output and exports shares) and keeping the remaining production which is capable of being sold on foreign markets (increasing export/output shares).

We can also observe quite significant modifications in the pattern of comparative advantages. Contrary to the results gained by Neven (1995) for the three Eastern European countries, Poland, former Czechoslovakia, and Hungary - "...that the comparative advantage in capital intensive industries is reduced over time and that these countries specialise rather more in labour intensive ones" (Neven, 1995 p. 43), we have already seen that Slovenia has (compared with the EU countries) comparative advantages in labour intensive industries which decreased sharply in the observed short time period, and comparative disadvantages in all other industrial groups.[13] Further division of particular

[13] *The author himself concluded that these results may reflect the process of transition rather than the long-term comparative advantage. The other possible reason is perhaps also the method used (grouping of industries according to the groups found for the German manufacturing industries), and*

industrial groups helped us to find different patterns of specialisation within them. In the capital-intensive group expected comparative disadvantage was found for the sub-group with increased output shares. In the observed period these sectors are moving slowly towards specialisation. A quite surprising result was found for the sub-group with decreasing output shares - they had a positive but decreasing trade balance. In the R&D and human capital-intensive industrial group both sub-groups have increasing comparative advantages. In the labour intensive industrial group comparative advantage is reduced for the industries in the sub-group with decreasing output ratios, and, conversely, industries in the sub-group with increasing output shares increased specialisation. The human capital-intensive industrial group has increasing comparative disadvantage in both sub-groups.

One would ask what role FDI played in these processes, if any? Are there any significant differences between enterprises FIEs and DEs? In the next subsection we will try to find answers to these questions.

3.5. Sustainable industrial growth?

Slovenia is one of the countries in transition still facing a number of serious challenges - reform of the pension and tax system, further reduction of inflation, further curtailment of wage and labour costs, further economic liberalisation (trade liberalisation being only a part of it), a delayed privatisation process and thus the postponed necessary restructuring of enterprises, and the creation of an efficient state administration. Bearing all these in mind it is very important to find out if it is feasible to expect that sectors which increased their output shares are indeed the sectors that will lead industrial growth in the future. Or, perhaps, we should search for the leading industrial sectors among those with decreasing output shares because of the already initiated process of restructuring. The role of FDI in these processes should also be examined.[14] [15]

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the period used for comparison (1985 - 1991/92) with a, perhaps, unreal trade pattern as a basis for comparison.

[14] *When searching the answers for all posed questions we should be aware of the problems with relevant data - a) short and different time periods dependant on the data available, b) changed nomenclatures and the use of concordance keys (problematic quality of data immediately after the changes), c) privatisation processes and the problems with the level of coverage of the data, d) completely new income balance statements sheets, and e) the "product - activity" problem.*

[15] *At this point we had to turn our analysis to the data based on activities - enterprises income balance statements sheets. Enterprises are classified in one particular Nace rev. 1 sector (at the four or five digit level) according to the most important product produced, and thus it was not possible to mix product based and activity-based data. For these reasons we had to recalculate changes in output shares (average changes for all enterprises within the industrial group) using activity data and sort sectors within industrial groups according to the new results. The overall output shares of particular industrial groups were slightly different - the reasons could be found in the higher coverage of production at the product level, production of different products within particular enterprises and also in possible mistakes in classification of enterprises (see tables 2 and 7).*

It is generally assumed that FDI has an important role in the recovery and restructuring process of CEE economies and that growth in intra-industry trade is associated with the FDI.[16] On the other hand, empirical results could not confirm these assumptions unambiguously. They indeed revealed FDI as a statistically significant explanatory variable of the CEEC intra-industry trade with the EU (although causality cannot be inferred), but, excluding the four observations with a high concentration of FDI, the relationship between FDI and intra-industry trade appears very weak (Hoekman and Djankov, 1996). New empirical investigations of the determinants of the export structure in CEEC found a significant positive relationship for outward processing trade (OPT) and imports in intermediate consumption (IMP), but no significant relationship for FDI (Hoekman and Djankov, 1997). Regression results across individual countries reveal substantial differences in the relative importance of explanatory variables. With only one exception (Poland), FDI is either negatively correlated with the country's revealed comparative advantage (Bulgaria, the Czech Republic, and Hungary) or statistically insignificant. Negative significant coefficient on the FDI variable indicates that investment is going into industries where countries do not have a revealed comparative advantage, which implies that FDI could be a force for change as it complements efforts made by domestic industries to restructure production facilities. Recently, analysis turned from exports to production (total factor productivity growth) when explaining channels for international technology transfer as a fundamental source of economic growth and development (Djankov and Hoekman, 1998). Results for the Czech Republic suggest that:"...although firm-level TFT growth is substantially higher in firms with foreign partnerships, once common macroeconomic influences and industry effects are controlled for, foreign investment does not have a statistically significant positive impact on firm performance.... we also observe the existence of strong and statistically significant negative spillover effects on other firms in the industry associated with foreign investment in a sector." (Djankov and Hoekman, 1998, p. 3-4). The aim of this subsection is far less ambitious and primarily related to the importance of FDI within industrial groups with different factor intensities, as well as on their role in the changes in manufacturing output. [17]

From the data in table 4 we can conclude that FDI stock is redistributed mainly between capital intensive (56%) and labour intensive (37%) industrial groups, the FDI stock in the

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[16] *In theory intra-industry trade results when firms specialise in similar but differentiated products in order to realise economies of scale or scope. Additionally, firms in the transition countries may have incentives to import inputs from the rest of the world to get access to know-how and new technologies. They can also obtain access to know-how and new technologies through joint ventures or other contractual relationships (Hoekman and Djankov, 1997).*

[17] *The major features of foreign direct investment on the aggregate level or within particular sectors of the Slovene economy has already been thoroughly analysed in many research projects. See, for example, Rojec et al. (1998a).*

remaining two groups being only of minor importance.[18] The high share of the FDI stock in capital-intensive industries, where Slovenia does not have revealed comparative advantages, implies that foreign investors must perceive these industries to be viable in the medium term. Over time this FDI may lead to greater changes in production and exports. Findings in the next sections will certainly confirm these expectations.

Table 4: Foreign direct investment stock in industrial groups (year 1995, %)

Industrial groups	Distribution between groups			Distribution within groups		
	Total	10-50 %	50% -	Total	10-50 %	50 % -
1. Capital intensive	55.5	19.7	61.7	100.0	5.2	94.8
2. R+D and human cap. Int.	6.1	13.3	4.8	100.0	32.2	67.8
3. Labour intensive	36.6	66.3	31.1	100.0	26.9	73.1
4. Human capital intensive	2.1	0.7	2.3	100.0	4.7	95.3
Total	100.0	100.0	100.0	100.0	14.7	85.3

Source: Bank of Slovenia, author's calculations

In the enterprises with a 10-50% foreign equity share, 2/3 of total stock was invested in the enterprises characterised as labour intensive. On the other hand 62% of FDI with more than 50% equity share was found in the capital intensity industrial group. The redistribution of FDI within industrial groups reveals the fact that the percentage of FDI with more than 50% foreign equity shares is very high, especially in the capital and human capital-intensive industrial groups.

In table 5 the importance of enterprises with FDI in total value of output and exports is presented. The overall share in the manufacturing output increased from 15% in 1992 to almost 20% in 1996. The highest and most important share in the total output was found in the capital-intensive industrial group - it increased from 33% in 1992 to 40% in 1996. The share in the R&D and human capital-intensive industrial group (14%) remained relatively stable with a decreasing trend. Below average but rapidly increasing importance of the enterprises with FDI in the output can be observed for the labour intensive industrial group.

[18] *Rojec (1998b) used a synthetic RCA ratio to find out the differences of distribution of assets of a particular category of enterprises (FIEs or DEs) for CE countries and found that in Slovenia FIEs are "over-represented" in relatively more capital intensive manufacturing industries.*

Table 5: The shares of the output and exports (enterprises with FDI) in total output and exports*

Industrial groups	Share of the output with FDI in total output (%)					Share of the exports in total exports (%)				
	1992	1993	1994	1995	1996	1992	1993	1994	1995	1996
1. Capital intensive	33.3	32.7	35.1	37.3	40.3	44.8	39.6	46.6	52.9	55.1
2. R+D and hum. cap. int.	14.4	14.4	12.5	12.8	13.5	13.0	9.1	8.3	11.7	12.0
3. Labour intensive	5.9	7.3	9.6	11.2	12.2	7.3	9.3	12.3	13.7	14.9
4. Human capital intensive	8.4	9.5	6.2	3.6	3.7	3.5	4.8	8.4	3.6	5.2
Total	15.0	15.3	16.8	18.3	19.6	19.7	17.7	21.6	24.8	25.8

* Calculations prepared on data from enterprises' income statements sheets
Source: Bank of Slovenia, author's calculations

The importance of the enterprises with FDI in exports is even greater - their overall share increased from 20% to 26% in the observed period. The highest and fastest growing share in total exports was found in the capital-intensive industrial group - it increased from 45% in 1992 to 55% in 1996. The share in the R&D and human capital-intensive industrial group depends on the development trends of the enterprises with FDI concentrated mainly in the sector "Manufacture of television and radio transmitters - sector 322). Shares in the labour intensive industrial group are again below average but are increasing rapidly.

Table 6: Differences of the shares of domestic sales and exports of the enterprises with FDI (FIEs) from the shares of domestic enterprises (enterprises without FDI, DEs)*

Industrial groups	Domestic sales					Exports				
	1992	1993	1994	1995	1996	1992	1993	1994	1995	1996
1. Capital intensive	237	243	226	211	213	331	305	316	340	352
2. R+D and hum. cap. Int.	163	179	176	118	127	61	46	33	40	39
3. Labour intensive	40	38	52	66	67	32	48	51	48	50
4. Human capital intensive	88	80	45	26	22	15	23	33	11	16

* Calculations prepared on data from enterprises' income statements sheets. Differences were calculated as indexes (value 237 means that the share of capital intensive products produced by the FIEs and sold on the domestic market in their total sales on the domestic market was in the year 1992 2,37-times greater compared to the share for the DEs)
Source: Bank of Slovenia, author's calculations

The main differences between FIEs and DEs could be found in table 6. On the domestic market enterprises with FDI are concentrated in capital intensive and in the R&D and human capital-intensive industrial group. If the exports are examined, capital-intensive orientation is even more pronounced for the enterprises with FDI. On the other hand, domestic enterprises could be characterised mainly as producers of labour intensive and human capital-intensive products with high and increasing importance in the exports of the R&D and human capital-intensive products.

If we now turn to the importance of sectors with increased output shares in the observed period 92-95, we can conclude that, on average, they produced only 1/3 of total manufacturing production in the year 1992 and 46% in 1995 – these changes undoubtedly reveal a rapid restructuring process in Slovene manufacturing industry (table 7). From the different changes of shares within a particular industrial group it can be concluded that DEs and FIEs were behaving quite differently. On the one hand we have FIEs with a high share in the "+"subgroup and a relatively low (and rapidly decreasing) share in the "-"subgroup. On the other hand, DEs were mainly "responsible" for the overall results, but revealing also a rapidly increasing share of the "+"subgroup.

Particularly low shares in the output for the "+" sub-group were found in the capital-intensive industrial group which could be attributed mainly to the restructuring efforts of the DEs. Namely, FIEs showed almost the opposite with higher changes in the "-" sub-group, pointing to the much faster restructuring process compared to the DEs.

Table 7: The overall output shares and output shares for enterprises with FDI (FIEs) and enterprises without FDI (DEs) in particular industrial groups in the period 92-95

Industrial groups	Total		Change	FIEs		Change	DEs		Change
	1992	1995	95/92 (%)	1992	1995	95/92 (%)	1992	1995	95/92 (%)
1 CAPITAL INTENSIVE	**30.9**	**28.5**	**-7.6**	**68.4**	**58.8**	**-13.9**	**24.3**	**21.6**	**-11.0**
+	12.2	15.6	28.1	82.9	86.8	4.6	19.9	27.2	37.1
-	87.8	84.4	-3.9	17.1	13.2	-22.4	80.1	72.8	-9.2
2 R+D AND HUM. CAP. INTENSIVE	**6.9**	**7.4**	**7.1**	**6.6**	**5.1**	**-23.4**	**6.9**	**7.9**	**14.0**
+	70.8	76.9	8.6	19.2	25.8	34.1	79.5	84.4	6.2
-	29.2	23.1	-20.9	80.8	74.2	-8.1	20.5	15.6	-24.0
3 LABOUR INTENSIVE	**58.2**	**58.2**	**0.0**	**22.8**	**35.0**	**53.1**	**64.5**	**63.5**	**-1.4**
+	44.2	55.3	25.0	90.3	96.3	6.6	30.2	41.2	36.5
-	55.8	44.7	-19.8	9.7	3.7	-61.5	69.8	58.8	-15.7
4 HUMAN CAPITAL INTENSIVE	**3.9**	**5.9**	**50.3**	**2.2**	**1.1**	**-47.7**	**4.2**	**7.0**	**65.0**
+	24.8	61.4	148.0	0.0	15.3	0.0	21.0	60.0	185.3
-	75.2	38.6	-48.7	100.0	84.7	-15.3	79.0	40.0	-49.4
TOTAL	**100.0**	**100.0**	**0.0**	**100.0**	**100.0**	**0.0**	**100.0**	**100.0**	**0.0**
+	35.3	45.9	29.9	78.6	86.2	9.6	30.7	42.9	39.8
-	64.6	54.1	-16.2	21.4	13.8	-35.4	69.2	57.1	-17.5

Source: income statements balance sheets, author's calculations

In the R+D and human capital intensive group DEs revealed a high share in the "+" subgroup - despite high penetration ratios sectors within this group (characterised also by the high importance of DEs) succeed in turning onto the path of specialisation and export orientation. It seems that output growth in these sectors would also be a sustainable one in the future.

Performance of the FIEs is even better in the labour intensive group contributing to the higher overall shares in the "+" subgroup (they already have a market for the products and

are using a cheaper labour force, experiencing high growth rates in exports and also in sales in the domestic market). On the other hand, DEs revealed on-going restructuring processes with competitiveness problems on the foreign markets and increased competition of the FIEs in the home market and with 60% of production within the "-" subgroup in 1995.

The fact is that FIEs show very positive developments in both of the most important industrial groups where FDI are concentrated. On the other hand, DEs had the greatest problems in the capital-intensive industrial group with high shares in the "-" sub-group, followed by the labour intensive industrial group.

Results in table 8 on the importance of particular industrial groups in the subgroup with the increased output shares reveal the fact that labour intensive enterprises were by far the most important ones with 70% output and export shares in the year 1995, followed by the R&D and human capital intensive enterprises (12% and 17%), capital intensive enterprises (10% and 12%) and human capital intensive enterprises (8% and 0,7%) with the only positive growth rate in their shares.

Table 8: The importance of particular industrial "+" and "-" subgroups in the output and exports in the period 92-95

Industrial groups	Total				Change		FIEs				Change		DEs				Change	
	1992		1995		95/92 (%)		1992		1995		95/92 (%)		1992		1995		95/92 (%)	
	Out	Exp	Out	Exp	Out	Exp	Out	Exp	Out	Exp	Out	Exp	Out	Exp	Out	Exp	Out	Exp
1 CAPITAL INTENSIVE	**30.9**	**31.9**	**28.5**	**29.4**	**-7.6**	**-7.9**	**68.4**	**72.5**	**58.8**	**62.6**	**-13.9**	**-13.7**	**24.3**	**21.9**	**21.6**	**18.4**	**-11.0**	**-16.1**
+	10.6	11.9	9.7	11.9	-8.9	0.6	72.2	77.3	59.2	64.9	-17.9	-16.1	15.7	9.1	13.7	8.1	-12.8	-11.1
-	42.0	42.9	44.5	43.8	5.9	2.1	54.5	38.8	56.4	36.0	3.4	-7.0	28.1	27.5	27.5	25.6	-2.1	-6.7
2 R+D AND HUM. CAP. INTENSIVE	**6.9**	**8.9**	**7.4**	**9.8**	**7.1**	**10.2**	**6.6**	**5.9**	**5.1**	**4.6**	**-23.4**	**-21.3**	**6.9**	**9.6**	**7.9**	**11.5**	**14.0**	**19.5**
+	13.8	18.9	12.3	17.3	-10.4	-8.5	1.6	1.1	1.5	0.8	-6.3	-28.9	18.0	27.0	15.5	24.7	-13.4	-8.4
-	3.1	3.4	3.1	3.5	1.1	4.4	25.0	39.2	27.2	48.1	9.0	22.7	2.0	2.2	2.1	2.2	5.0	0.5
3 LABOUR INTENSIVE	**58.2**	**57.3**	**58.2**	**58.8**	**0.0**	**2.6**	**22.8**	**21.3**	**35.0**	**32.5**	**53.1**	**52.8**	**64.5**	**66.1**	**63.5**	**67.5**	**-1.4**	**2.0**
+	72.8	68.5	70.1	70.1	-3.8	2.3	26.2	21.5	39.0	34.2	48.9	58.9	63.4	63.2	61.0	66.5	-3.8	5.2
-	50.3	51.3	48.1	49.4	-4.3	-3.5	10.4	19.4	9.5	13.0	-8.6	-32.8	65.1	67.5	65.5	68.2	0.6	1.0
4 HUMAN CAPITAL INTENSIVE	**3.9**	**1.8**	**5.9**	**2.1**	**50.3**	**13.3**	**2.2**	**0.3**	**1.1**	**0.3**	**-47.7**	**-7.6**	**4.2**	**2.2**	**7.0**	**2.7**	**65.0**	**20.9**
+	2.7	0.7	7.8	0.7	187	-3.5	0.0	0.0	0.2	0.1	0.0	0.0	2.9	0.8	9.7	0.7	237	-1.8
-	4.6	2.5	4.2	3.2	-8.0	31.8	10.1	2.6	7.0	2.8	-31.5	7.0	4.8	2.8	4.9	4.0	1.3	41.8
TOTAL	**100**	**100**	**100**	**100**			**100**	**100**	**100**	**100**			**100**	**100**	**100**	**100**		
+	100	100	100	100			100	100	100	100			100	100	100	100		
-	100	100	100	100			100,	100	100	100			100,	100	100	100		

Out - output, Exp - exports
Source: income statements balance sheets, author's calculations

The subgroup with decreased output shares is characterised by almost equally important labour (48% and 49%) and capital-intensive enterprises (45% and 48%) in the output and exports respectively. The main contributors to these overall results are of course DEs with quite similar distribution and even higher shares of R&D and human capital intensive "+" subgroup and a rapidly increasing share in the human capital intensive subgroup. FIEs revealed quite a fast decline in the importance of output of all industrial groups with the

only exemption being the labour intensive group which is rapidly increasing its share. The distribution of enterprises within the "+" subgroup is certainly the result of the importance of particular industrial group – capital intensive enterprises had the highest but decreasing output and exports shares (59% and 65%), followed by the rapidly increasing shares of labour intensive enterprises.

Very interesting results regarding the export orientation of enterprises, measured with an export/output ratio, are presented in table 9.[19] FIEs are characterised by a higher average export orientation and higher export/output ratios in the two most important industrial groups (labour and capital intensive groups) compared with the DEs. They had also a higher export/output ratio in the "+" subgroup and a particularly low ratio in the "-" capital-intensive subgroup. The low export/output ratio found in the "+" subgroup of capital intensive DEs, together with the decreased return on assets indicator (table 11), certainly reveal still-existing problems in competitiveness and unfinished restructuring processes with still strong orientation of these enterprises to the domestic market. Better results were found in the labour intensive industrial group.

Table 9: The overall export/output shares and export/output shares for FIEs and DEs in particular industrial groups in the period 92-95

Industrial groups	Total		Change	FIEs		Change	DEs		Change
	1992	1995	95/92 (%)	1992	1995	95/92 (%)	1992	1995	95/92 (%)
1 CAPITAL INTENSIVE	**0.484**	**0.498**	**3.0**	**0.651**	**0.686**	**5.3**	**0.401**	**0.382**	**-4.8**
+	0.523	0.589	12.6	0.733	0.753	2.8	0.251	0.254	1.2
-	0.479	0.482	0.7	0.254	0.241	-5.2	0.438	0.429	-1.9
2 R+D AND HUM. CAP. INTENSIVE	**0.604**	**0.642**	**6.3**	**0.545**	**0.588**	**8.0**	**0.614**	**0.650**	**5.9**
+	0.644	0.671	4.1	0.477	0.364	-23.7	0.651	0.685	5.2
-	0.507	0.548	7.9	0.561	0.666	18.7	0.472	0.465	-1.5
3 LABOUR INTENSIVE	**0.461**	**0.489**	**6.0**	**0.572**	**0.600**	**4.8**	**0.454**	**0.475**	**4.6**
+	0.441	0.478	8.4	0.562	0.603	7.3	0.432	0.469	8.7
-	0.477	0.503	5.3	0.667	0.518	-22.4	0.464	0.480	3.3
4 HUMAN CAPITAL INTENSIVE	**0.219**	**0.171**	**-22.1**	**0.093**	**0.172**	**85.6**	**0.231**	**0.171**	**-26.0**
+	0.119	0.041	-65.7	0.000	0.279	0.0	0.114	0.033	-71.0
-	0.252	0.378	49.7	0.093	0.153	64.6	0.262	0.378	44.1
TOTAL	**0.469**	**0.484**	**3.3**	**0.614**	**0.645**	**5.0**	**0.443**	**0.448**	**1.0**
+	0.469	0.479	2.0	0.684	0.688	0.6	0.433	0.431	-0.6
-	0.468	0.489	4.5	0.357	0.376	5.4	0.447	0.460	2.9

Source: income statements balance sheets, author's calculations

In order to find out possible changes within industrial groups and to get some indication about the process of restructuring, we prepared the same calculations using data for the period 94-96 (table 10). The new base year (1994) is certainly a better base for the comparison of the output changes compared with the year 1992, immediately after the separation of Slovenia from the former Yugoslavia and the collapse of the then domestic market.

[19] *The lower overall average export/output ratio calculated on the enterprise data is mainly the result of the valuation of inward processing on the net basis (without the value of intermediate inputs) and to a lesser extent the result of different definitions of output and exports. Additionally, differences in the industrial (sub)groups could be attributed also to the product/activity problem of used data.*

Table 10: The overall output shares and output shares for the FIEs and DEs in particular industrial groups in the period 94-96

Industrial groups	Total		Change	FIEs		Change	DEs		Change
	1994	1996	96/94 (%)	1994	1996	96/94 (%)	1994	1996	96/94 (%)
1 CAPITAL INTENSIVE	**28.3**	**27.9**	**-1.5**	**59.0**	**57.2**	**-3.1**	**22.1**	**20.7**	**-6.3**
+	38.3	41.4	7.9	68.1	77.7	14.1	45.0	53.6	19.1
-	61.7	58.6	-4.9	31.9	22.3	-30.2	55.0	46.4	-15.7
2 R+D AND HUM. CAP. INTENSIVE	**7.6**	**7.8**	**3.0**	**5.7**	**5.4**	**-4.7**	**8.0**	**8.4**	**5.4**
+	85.5	86.1	0.8	100.0	100.0	0.0	94.4	96.2	1.9
-	14.5	13.9	-4.5	0.0	0.0	0.0	5.6	3.8	-32.3
3 LABOUR INTENSIVE	**58.7**	**58.4**	**-0.6**	**33.4**	**36.3**	**8.8**	**63.8**	**63.8**	**-0.1**
+	35.4	42.2	19.2	84.9	92.0	8.4	25.5	31.9	25.1
-	64.6	57.8	-10.5	15.1	8.0	-47.2	74.5	68.1	-8.6
4 HUMAN CAPITAL INTENSIVE	**5.3**	**5.9**	**11.2**	**2.0**	**1.1**	**-44.0**	**6.0**	**7.1**	**18.2**
+	99.9	99.9	0.0	18.3	39.1	113.4	97.9	98.3	0.4
-	0.1	0.1	-33.8	81.7	60.9	0.0	2.1	1.7	-18.7
TOTAL	**100.0**	**100.0**	**0.0**	**100.0**	**100.0**	**0.0**	**100.0**	**100.0**	**0.0**
+	43.5	48.8	12.4	74.6	83.7	12.3	39.6	46.5	17.4
-	56.5	51.2	-9.4	25.4	16.3	-36.0	60.3	53.5	-11.3

Source: income statements balance sheets, author's calculations

From the results in table 10 we can observe a positive shift for the DEs in all industrial groups, the only exception being the labour intensive group. An important positive shift can be found in the capital-intensive group which is, together with the labour intensive group, still in the process of restructuring. FIEs experienced worse performance in the capital-intensive group but with ongoing restructuring processes.

To test the changes in the efficiency of the enterprises the return on assets indicator was used (RAI; table 11). With their levels and changes in the observed period we tried to find out if changes in the output shares were accompanied with appropriate changes in the efficiency indicator. As we were analysing average values there were certainly particular sectors or enterprises within sub-groups with different results, but our first aim was to compare these values between FIEs and DEs.

On the aggregate level enterprises turned from the positive to negative RAI in the observed period 1994-96 due to the decreased positive RAI in the "+" subgroup and increased negative RAI in the "-" subgroup. Results, particularly for the "-" subgroup, once again reveal the fact of the still-unfinished restructuring process. We could also observe positive but rapidly decreasing RAI for the sectors in the capital intensive and R&D and human capital intensive "+" subgroups. The positive shift in the "+" labour intensive subgroup could be attributed mainly to very positive development in the FIEs.

FIEs have, on average, positive and increasing RAI, the main contributor being enterprises in the labour intensive industrial sector. The situation in the capital intensive group is a different one - the positive RAI in the "-" subgroup deteriorated and became a negative one, and on the other hand, the "+" subgroup revealed positive but decreasing RAI - it seems that the restructuring process for the capital intensive FIEs is not finished yet, and that they are also (because of high export/output ratios) quite sensitive to the developments on the world market.

Table 11: Return on assets indicator (%) for industrial groups in the period 1994-96

Industrial groups	Total		Difference	FIEs		Difference	DEs		Difference
	1994	1996	96-94	1994	1996	96-94	1994	1996	96-94
1 CAPITAL INTENSIVE	**-0.53**	**-0.13**	**0.39**	**2.02**	**1.24**	**-0.77**	**-1.23**	**-0.58**	**0.65**
+	1.97	0.91	-1.05	3.54	2.65	-0.89	1.35	0.53	-0.82
-	-2.19	-1.08	1.12	0.88	-0.16	-1.05	-12.77	-21.36	-8.59
2 R+D AND HUM. CAP. INTENSIVE	**5.52**	**2.50**	**-3.03**	**-1.68**	**-2.88**	**-1.20**	**6.63**	**3.39**	**-3.24**
+	7.97	4.04	-3.92	-1.68	-2.88	-1.20	6.96	3.45	-3.51
-	-7.11	-6.03	1.08	0.00	0.00	0.00	0.00	0.00	0.00
3 LABOUR INTENSIVE	**-0.36**	**-0.45**	**-0.10**	**2.92**	**4.62**	**1.70**	**-0.63**	**-1.07**	**-0.44**
+	-0.74	0.43	1.17	3.77	5.00	1.23	-0.27	-0.13	0.14
-	-0.13	-1.11	-0.98	-4.29	-3.26	1.03	-3.13	-9.93	-6.80
4 HUMAN CAPITAL INTENSIVE	**0.00**	**0.19**	**0.19**	**1.52**	**-7.34**	**-8.87**	**-0.13**	**0.55**	**0.68**
+	-0.01	0.19	0.20	-4.65	-14.78	-10.14	-0.41	1.80	2.21
-	10.14	-8.60	-18.74	0.00	0.00	0.00	0.00	-0.01	-0.01
TOTAL	**0.08**	**-0.06**	**-0.14**	**2.00**	**2.19**	**0.20**	**-0.20**	**-0.45**	**-0.25**
+	1.37	1.04	-0.33	2.82	3.05	0.23	0.87	0.46	-0.41
-	-0.93	-1.58	-1.17	0.53	-0.27	-0.79	-5.90	-8.34	-2.44

Source: income statements balance sheets, author's calculations

DEs had a positive shift in the shares of sub-groups in the capital intensive sector but the relative growth of the output of the "+" sub-group was relatively low with decreased positive RAI (because of the increased loss of loss making enterprises), indicating that there are still some problematic enterprises. Decreasing share of the "-" sub-group with the highest negative RAI, which decreased further, point to the unfavorable developments in this part of capital intensive DEs. Compared to the FIEs they have very low export/output ratios in both sub-sectors and are thus more oriented to the domestic market. This is certainly another less favorable indicator for the future developments of capital-intensive DEs.

Labour intensive DEs as a group experienced an increase of the negative RAI. In both sub-groups they had a loss which decreased in "+" sub-group (as a result of positive developments in the enterprises with profits and decreased losses in the enterprises with losses), but increased in the "-" sub-group (as a result of negative developments in the enterprises with profits and increased losses in the enterprises with losses). Both sub-groups' export orientation remained stable and far below the ratios of the FIEs. The labour

intensive group is the most important industrial group with high shares in almost all important variables - the actual and future success in the restructuring process of the DEs is therefore very important for the overall performance of the Slovenian manufacturing sector.

In the remaining two industrial groups DEs experienced increases in output shares. The R& D and human capital-intensive group, which was the most export-oriented group, decreased its high positive net profits. The human capital-intensive group, on the other hand, succeeded in turning from loss to net profit despite the extremely low export orientation - in the future therefore problems may arise due to the further foreign trade liberalisation and increased foreign competition.

We can conclude that, according to the return on assets indicator, both FIEs and DEs had on average positive RAI in the "+" subgroup, which is decreasing for the DEs and increasing for the FIEs (as the result of positive developments in the labour intensive group). We did not find positive shifts in the efficiency of the sectors in the "-" subgroup as negative RAI further decreased in the observed period with the only exception being the FIEs in the labour intensive group. The restructuring process in the DEs is certainly not finished yet - in both of the most important industrial groups (capital and labour intensive) they revealed rapidly increasing negative RAI in the "-" subgroups, the only exception being found in the labour intensive "+" subgroup. FIEs revealed the best results in the labour intensive group with fast growing positive RAI in the "+" subgroup and positive development in the "-" subgroup.

3.6. Multiple linear regression model

In order to find out the relationship between the output growth in the observed period 1992-95 and selected independent variables multiple linear regression was used. As the data come from different surveys and income statements balance sheets it was only possible to find out if there existed any significant association between the output growth and a particular independent variable.

In case of output growth being the dependent variable, data from the industrial survey, corrected with the Statistical office estimates of the value of production on the 2-digit level, were used. For the independent variables the following variables were used: export growth (EXP), growth in the export/output ratio (EXPOUT), imports growth (IMP), growth in the import penetration ratio (IMPDEM), growth in domestic demand (DDEM), difference in the contribution to trade balance (CTRBL), the share of FDI's in the equity share, growth in employment (EMPL), growth in productivity (VAEMPL), growth in the gross wages per employee (WEMPL), and growth of the FDI's in the equity share (SHAREFDI). All the

observations with clear problematic values due to the incorrect values of production and some found outliers were excluded. Additionally, multiple linear regression models were used for the two most important industrial groups - labour intensive and capital intensive groups.

Summary results are presented in the table 12. It can be concluded that explanatory variables were very successful in explaining the variability of the output growth – the correlation between the observed and predicted values of the dependent variable was high and adjusted R Square above 0.93. Also the F statistic was highly significant, indicating that simultaneous test that each coefficient is 0 was rejected.[20]

With the first model we tried to explain overall output growth for the industries at the NACE Rev. 1 3-digit level. It can be concluded that highly significant associations were found for all independent variables included. They all had high t-values indicating a significant correlation between output growth and independent variables. In order to assess the usefulness of each predictor in the model beta coefficients were used as an approximation - obviously export growth and changes in the export/output ratio were the most important variables, followed by the growth in domestic demand, imports and the import penetration ratio.

[20] *Tests of the co-linearity - the situation where the correlation among the independent variables is strong - tolerance statistics and variance inflation factor (VIF), did not reveal any problems.*

Table 12: Multiple regression model

MODEL		Unstandardised Coefficients		Standardised Coefficients	t	Sig.	Adjusted R Square
		B	Std. Error	Beta			
1	(Constant)	4.929	5.001		.986	.328	.936
	EXP	.871	.051	.870	13.247	.000	
(TOTAL)	EXPOUT	-1.088	.095	-.738	-10.492	.000	
	IMP	-.297	.043	-.386	-6.634	.000	
	IMPDEM	.337	.090	.289	3.686	.000	
	DDEM	.435	.042	.586	10.423	.000	
2	(Constant)	-.099	4.230		-.023	.981	.971
	EXP	.813	.045	.750	18.036	.000	
(LABOUR	EXPOUT	-1.003	.072	-.735	-14.010	.000	
INTENSIVE	IMP	-.259	.030	-.371	-8.613	.000	
GROUP)	IMPDEM	.277	.065	.262	4.231	.000	
	SFDI	.390	.127	.085	3.070	.004	
	DDEM	.404	.030	.627	13.471	.000	
	VAEMPL	.112	.053	.056	2.103	.042	
3	(Constant)	-17.141	7.580		-2.261	.045	.971
	DDEM	.222	.072	.191	3.094	.010	
(CAPITAL	EXP	.975	.070	1.253	13.944	.000	
INTENSIVE	EXPOUT	-1.987	.176	-1.000	-11.244	.000	
GROUP)	SFDI	-.286	.090	-.147	-3.176	.009	

Source: Statistical Office, author's calculations

The positive sign of the EXP variable was certainly expected - the exports growth and output growth are positively correlated.[21] We have already seen from the data for the "+" sub-groups within particular industrial groups that increased output share (higher than average nominal output growth rate) was accompanied by increased exports but also with decreasing export/output shares, indicating the rising problems with export competitiveness. Perhaps not so surprising was the negative and highly significant coefficient for the EXPOUT variable. On the one hand, it explained one half of the story - problems with lower export growth compared with the output growth - and on the other hand the process of the contracting of non-competitive production (decreasing output shares in the "-"subgroups), keeping competitive production which was viable on the foreign markets (thus increasing export/output shares).

A positive and highly significant coefficient for the growth in domestic demand was also expected - increased domestic demand was indeed covered along with the increased domestic production. The opened domestic market also resulted in the quick growth of imports and increased foreign competition on the domestic market, together with the loss of

[21] *As we did not have data from the controlled experiment we could not make any statement about cause-and-effect relationships between dependent and each independent variable. It was only possible to find*

a great part of what had been the former domestic market and non-competitive domestic enterprises - all these developments forced domestic enterprises into a restructuring process. The negative and significant coefficient for the growth of imports certainly explains these processes.

Quite unexpected was the positive and highly significant coefficient for the import penetration ratio variable. It seems that this result comes from a manufacturing industry highly dependent on the importation of intermediate goods. This high dependence on intermediate goods was the result of the former position of Slovene manufacturing industry in the Yugoslav economy, supported by the protection policy which protected the production of final goods and allowed for the duty free importation of intermediate goods for export production. Such a protection policy had a negative effect on the production of intermediate goods, and on the other hand, after independence and the decline of the domestic market, producers of final goods had to purchase intermediate goods on foreign markets. There were also three additional processes supporting a positive relationship - growth of the FDI's, the importance of the inward processing activities in some particular sectors, and growth of the intra-industry trade.

In order to discover possible differences when explaining the variability of output growth two additional regression models were estimated using data for the labour intensive and capital-intensive industrial sectors. In both models the same independent variables were used. Results for the labour intensive sectors reveal the fact that these sectors also had a great effect on the overall results - namely, very high Adjusted R Square, high F statistics, and equal signed coefficients significantly different from 0 were found. Two additional explanatory variables, share of FDI's (SFDI) and growth in the value added per employee (VAEMPL), with positive and significant coefficients, pointed to the fact that output growth in labour intensive industries was also associated with the higher shares of the FDI's and increases in productivity.

The regression model estimated for the capital intensive sectors gave different results - we did not find a significant correlation between output growth and the growth in imports and import penetration. Output growth was explained primarily by the growth in exports, export/output ratio, domestic demand and FDI's shares. These results additionally support the findings that the capital-intensive group succeeded in increasing output and export shares and decreasing the negative contribution to the trade balance despite the increased import penetration ratios. In this industrial group imports contributed 2/3 of the change in domestic demand, with production oriented towards foreign markets. High and fast growing shares of the FIEs in this group played an important role in this process. The negative

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out the sign and the significance of the relationship between them.

coefficient for the SFDI variable, together with the findings in the previous section (output growth of the FIEs in both sub-groups), only once again reveal the fact that in the capital intensive industries DEs were in their restructuring process as a result of the opened domestic market, low competitiveness and also of the growing importance of the FIEs which additionally raised competition on the domestic market.[22]

4. CONCLUDING REMARKS

Slovenia continued the transition process after independence in a situation of a still- existing specific market-decentralised socialist economic system, with socially-owned enterprises. Rapid trade liberalisation and the collapse of the domestic market, together with the necessity of establishing a market economy through privatisation and restructuring processes, forced the economy to move onto the path of an outward-looking, export-oriented development strategy.

Until now, the major focus of reforms on the enterprise level has been oriented to the establishment of a legal and institutional framework for enterprise creation and the promotion of entrepreneurship, the rehabilitation of the enterprises and privatisation. These processes were accompanied by a rather successful macroeconomic stabilisation process, institutional reforms, and efforts to establish the necessary institutional arrangements for the better inclusion of the economy in the international integration processes (membership in WTO, Europe Agreement, Free Trade Agreements with several European countries).

In the paper the attempt to trace some effects of trade reforms and the initiated process of transition toward a market economy was made. The most time consuming and problematic task was certainly the preparation of the necessary statistical data. Statistics is also facing crucial changes in order to become more internationally comparable. Unfortunately, there was no similar attempt in preparing data on such a level of disaggregation. There still remain some problems that should be resolved in the future: correction of the value of output to include inward processing activities in gross terms; preparation of series in constant prices; preparation of comparable data from income balance sheets for the period

[22] *As it was not possible to use product and activity level data together we estimated an additional linear regression model with the aim of finding the existence of the significant correlation between the output growth and some domestic variables. The source of the data was income statements balance sheets. For the dependent variable, growth of total sales in the period 1992-95, as an approximation for the output, was used. From the results it could be concluded that the output growth was explained by only two variables: growth in the employment (EMPL) and growth in the productivity (OUTEMPL).*

1992-93; correction of the problematic values for some particular sectors on the 3-digit level; and the updating of the prepared data bases with the newer data.

Analysis of the foreign trade liberalisation process undoubtedly reveals the fact that the producers in manufacturing, energy and mining have already experienced the main shock of the foreign trade liberalisation process in the period 1986-1993, accompanied by the forced rapid reorientation from the domestic to foreign markets.

As a country in transition Slovenia should be concerned primarily with the achievement of economic stability and the structural reforms needed for sustainable growth. The fundamental condition for a successful integration into an economic union is that it benefits both partners. This certainly implies that the economic system should achieve a sufficient degree of compatibility with that of the EU, that the accessing country develops enough competitiveness, and that a politically and socially acceptable adjustment process leads to conditions which permit sustainable growth within the new open environment of the EU.

The analysis of the pattern of industrial growth according to the specific sector intensities revealed the importance of the labour intensive sectors (with decreasing comparative advantages), followed by the capital intensive sectors and the remaining two far less important groups – the R&D and human capital intensive group (with the highest specialisation and export orientation), and the human capital intensive group, characterised by the lowest and decreasing export orientation.

Sectors within groups whose output share in total output increased in the observed period 1992-95 have, on average, higher but decreasing export/output ratios, and higher import penetration ratios. These sectors are thus more opened to foreign competition and they succeeded in increasing output shares - declining export/output ratios point to the fact that they are gradually losing competitiveness on foreign markets. We can conclude that in the sub-group with increased output shares the most important were enterprises in the labour intensive group with 70% shares in output and exports. Despite high and increasing import penetration, they succeed in increasing their output and export shares but with growing difficulties in keeping export/output ratios, also revealing decreased positive return on assets indicator (with the only exception found in the labour intensive subgroup). Traditional revealed comparative advantages found in the labour intensive industrial group increased further in this sub-group. The subgroup with decreased output shares is characterised by almost equal important labour intensive (48% and 49%) and capital-intensive enterprises (45% and 48%) in the output and exports respectively. Rapidly increasing import penetration ratios found in all sub-groups with a high contribution of imports to changes of domestic demand, reveal the forced restructuring process in these

sectors - decreasing (or closing down) production of non-competitive products (decreasing output and exports shares) and keeping the remaining production which can be sold on foreign markets (increasing export/output shares).

On the enterprise level it can be concluded that on the domestic market FIEs are concentrated in the capital-intensive group, and in the R&D and human capital-intensive industrial group. If the exports are examined, the capital-intensive orientation is even more pronounced for the FIEs. On the other hand, DEs could be characterised mainly as producers of labour intensive and human capital-intensive products with high and increasing importance in the exports of the R&D and human capital-intensive products.

The FDI's have evidently played a positive role in the restructuring process so far, but they have also increased competition for the DEs. It is thus quite questionable to conclude that sectors with increased output shares will also lead industrial growth in the future. The positive shift between the two observed periods 92-95 and 94-96 certainly indicates that the economy has succeeded to some extent in the restructuring efforts (with the significant positive contribution of the FIEs), but it has still problems, especially within the DEs in the capital intensive and labour intensive group. We can finally conclude that the increasing output shares of sectors with high shares of FIEs can be regarded as sustainable ones, but for sectors where the shares of DEs are high one should wait until the end of the ongoing restructuring process. It will not be so surprising if some now-contracting sectors will be among the sectors that will lead future industrial growth.

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