Firms and Products in International Trade: Data and Patterns for Hungary

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Abstract

This paper provides a detailed description of Hungarian trade data and key patters drawn at the firm and product level. The IEHAS-CEFiG Hungary dataset is an almost universal panel of balance sheet information (1992-2006) merged with firm-product-country level customs data (1992-2003) taken until the 2004 EU accession. In the Bernard et al. (2007) tradition, statistics describe the prevalence of trading activity, typology of firms by internationalisation, concentration of trade volume within and across sectors as well as geographical features of activities. The aim of this paper is both to offer background statistics to existing studies and to stimulate future research on firms and trade by offering a great deal of descriptive statistics. After describing datasets, the prevalence of trading activity across sectors, concentration of trading volume across and within sectors, spatial distribution on trade and principal trading partners are described. Stylized facts show that trading activity is heavily concentrated, both exporters and importers show better performance than non-traders, and multi-product and multi-county firms are responsible for the bulk of trade volume.

Keywords: international trade, exporting, firm-product level data.

JEL classification: F23, F14, D21, R12, R30

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1 Introduction

In the past decade, the appearance of firm level datasets allowed micro-level statistical examination of international trade. Datasets from the US (Bernard et al. 2007), France (Eaton et al. 2005), Italy (Castellani et al. 2008), Belgium (Muûls & Pisu 2007) or Columbia (Eaton et al. 2007) all described the patterns of international trade at the firm level. Empirical trade research based on firm level data point towards the importance of firm heterogeneity and the exceptional performance of the exporting and importing firms, see e.g. Mayer & Ottaviano (2008).

Hungarian data have also been used recently, and this paper is aimed at introducing the key features of the data as well as basic description of the most important patterns of international trade and establishing stylised facts on heterogenous trading firms in Hungary.

The IEHAS-CEFiG Hungary dataset [2] is compiled with the purpose of investigating international trade at the firm level. Balance sheet and customs information for the period 1992-2003 are merged with a firm-product-country panel of manufacturing trade observations. This note is to provide descriptive statistics on this comprehensive dataset focusing on international trade related phenomena: prevalence of trading activity, concentration of trade volume within and across sectors and over space. Furthermore, we give basic inference about the variety of trading partner countries and product categories.

Two datasets from different sources are merged. The first dataset is from the Hungarian Tax Authority (APEH) containing an almost universal sample of firms with double-entry bookkeeping. Data include common balance sheet and income statement information such as output, labour, capital or ownership. Balance sheet data are available for the whole economy. The customs data cover complete set of *transactions* from 1992-2003 taken until Hungary's EU accession in 2004.The observation is an aggregate of shipments at economic entity-destination-product level of export or import naming the country of destination or origin, the value and its physical quantity and product category. Customs data are available for goods (and not services). Importantly, the customs data allowed creating firm-level descriptive variables of trade volume, diversity of trading partners and that of products. These aggregate firm level variables were than directly merged with the balance sheet data.

Manufacturing plays a dominant role in both import and export activity by volume, therefore this discussion focuses on the manufacturing sector.

[2] The dataset is used for example in Halpern et al. (2005), Altomonte & Békés (2009), Békés & Muraközy (2008), Csillag & Koren (2009), Békés & Harasztosi (2009), Görg et al. (2008)

Throughout the paper, we use the following approach to Tables and Statistics. The year 1999 is picked as reference point to describe cross-sectoral distribution of any phenomena; while these tables for 1999 are displayed in the text, time-series of the descriptive statistics will be available in the Appendix.

The rest of the paper is structured as follows. In Section 2, first we describe the two datasets separately and the procedure of merging. Section 3 gives a portrait of trading firms: in 3.1 the prevalence of trading activity across sectors is discussed, part 3.2 investigates how trading firms are different from non-trading firms in terms of key characteristics. Part 3.3 describes the concentration of trading volume across and within sectors. Further, the basic picture on the spatial distribution on trade volume is described. In Section 4 the distribution of the number of traded products are discussed. Using the customs data part 4.2 presents a broader picture on the Hungarian trade regarding products principal trading partners. Finally, some key stylised facts are summarised.

2 Constructing the Dataset

In this section we explain in detail how the IEHAS-CEFiG Hungary dataset was constructed: describing both the source dataset and the procedure of merging.

2.1 The source datasets

The balance sheet database is based on information collected by the Hungarian Tax authority (APEH). It contains information on double entry book keeping firms from 1992 to 2006. The list of key variables include: annual average employment, net value of sales and export sales, fixed assets, wage bill, financial assets, costs of goods and materials. Also, we have information on ownership, as the equity share of the public sector, domestic private sector and foreign owners are given. Firms' sectoral categorisation is identified at four-digit NACE categories (of 1996). The location of the headquarter of the firm is available at municipal level along with its post code, and this allows to describe data spatially at any level of NUTS classification.

The firm level custom dataset is collected by the Hungarian Statistical Office. The dataset is assembled from the customs declarations that economic agents fill out in case they export or import. These account for all transactions entering or leaving Hungary with the special trade approach which excludes

goods stored unaltered in bounded warehouse and duty free zones.[3] In the database yearly trade volumes are reported at destination-firm-product-level. The goods are categorised by the Hungarian Nomenclature of product of 9 digits, which is up-to six digits is equivalent with the Harmonised System categories. As this information is not fully available for us in every year, in this study we will regard each HS6 category as separate product.

The destination or origin of the *transaction* is labelled by two-letter UN country classification, taking the geopolitical changes of the sample period into account. The values of export are calculated as *free on board* and the imports are accounted for on *cost, insurance freight* value in both USD and HUF terms. We are also have information on the physical quantity of an observational unit and its unit of measurement given by the guidelines of Combined Nomenclature. Each observation entails an entity identifier, which is congruent with that of the balance sheet database and which facilitates the merger of the data.

We have no information regarding either the actual APEH id or the name of firms.

2.2 Data Cleaning

Some basic cleaning of the APEH dataset was carried out to clean the data of obvious errors. Typos and outliers (such as the use of million instead of thousands, lack of commas, etc.) in wage and employment data were corrected for by looking for abnormally higher than sectoral average changes.

One or two consecutive years of missing information about the sectoral classification of the firm at 4 digit NACE level was corrected for the following way. Gaps were filled with classification of the pre-gap and after-gap classification if those were congruent. Other single gaps were filled with pre-gap observations, unless they were the first observations of a firm. In that case post-gap information was used.

One or two consecutive year gaps of sales, employment, fixed assets, average wage , material cost and foreign share information were filled in with the linear increment suggested by the difference of the pre and post-gap existing information. In case of these variable only single or double gaps were filled where both adjacent information were available. Other gaps were left unaltered.

Of course, users of the data may have added further cleaning depending on

[3] Further exclusions are: currency, monetary gold, temporarily used machinery, goods shipped for repairs, international aids, military shipments. From 1997 on only the shipments from duty free zones to abroad were accounted for, those to within Hungary not.

particular usage.

2.3 Merger

In order to merge datasets at the firm level, firm-year level aggregates were created such as value of trade in millions of HUF, the number of trading partner countries and the number of traded varieties both for importing and exporting for a given firm. Given the transformation of the customs data, it can be merged to the balance-sheet panel by year and the identifier.

In sum, 26 percent of the export observations (entity-year) and 32 percent of the import observations were not matched for two reasons. First, after the merger firm-year observations that were not originally available in the APEH dataset were dropped. In case of exports this implied on average yearly 5000 observations, showing stability over time. The share of export value dropped in 1992 and 1993 constitute 19% and 14% of the customs export, while in the later years this share is only 3-5%. In case of imports on average 10000 observations are dropped yearly. Similarly to imports in 1992 and 1993 the share of unmatched volume was higher than in later years, being 23 and 19 percent respectively, but only 3 to 5 percents afterwards.

The second discrepancy stems form exporter and importer entities that were not obliged to have double book-keeping by the *Act on Accounting* in effect of the period. This also implies, that by keeping observations present in the APEH data only, we can be more certain, that observations about export and import remaining in IEHAS-CEFiG refer to proper firms.

In this study we use trade information obtained from the customs statistics. Therefore we implicitly assume, that firm that show positive exports in the APEH dataset, but do not appear in the customs data do not trade. That is, we will evaluate exporter status and export volume as suggested by the customs data. This way exporting and importing is handled with the same methodology.

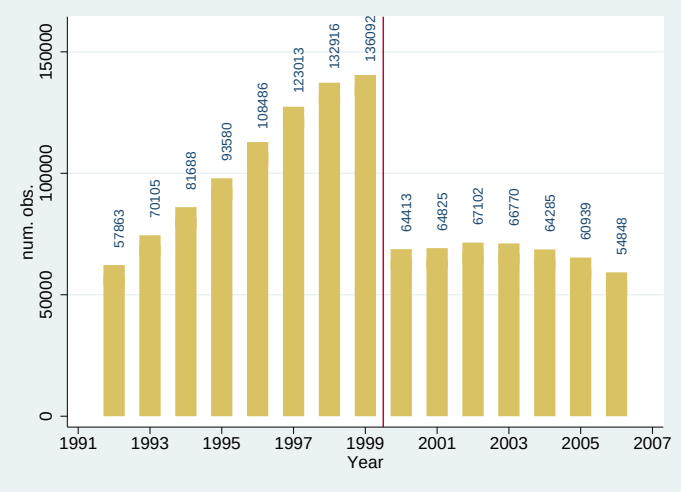
2.4 The scope of the IEHAS-CEFiG dataset

Having merged the datasets, a panel ranging from 1992 to 2006 containing 1,246,925 firm-year observations with trade related information until 2003 was obtained. The number of observations ranges from 54 to 136 thousand yearly, as represented by Figure 1.

The sharp drop observed after 1999 is due to the change in the sampling rules used by the data collector. The change affects the sampling of the firms with

less than 5 employee, who thus become underrepresented. The average firm size in terms of employment doubles from 1999 to 2000, from 15 to 30, also total employment in the sample drops only with 7 percent from 1999 to 2000 in the data. The effect of the gap on the trade related inference is minuscule as almost all trading firms are accounted for. Firms with less than million dollars of export are missing after 1999. As less than one percent of 1999 exporters are such firms, this discrepancy can be regarded a minor one. However, it might affect the time-series nature of the data.

Fig. 1. **Number of firms by years**



The graph shows the yearly number of observations in the IEHAS-CEFiG dataset. The red line represents the change in the sampling procedure from 1999 to 2000.

The cross sectoral distribution of observations shows that more than 70% of firms are in NACE chapters of *Manufacturing*, *Wholesale and retail trade* and in *Real estate & renting and business activities*. These sectors represent on average 63% of total employment. The relative shares of chapters are stable over time as Table 12 (in the appendix) summarising the employment shares of the NACE chapters over the years confirms. However, one can witness the decline in the relative importance of *Agriculture*, *Mining and quarrying* and the increase in services such as *Health and Social work*, *Wholesale and retail trade* and *Education*.

The customs data allow us to evaluate the distribution of trade activity over the sectors. Not surprisingly, the largest share of product exports are performed by the manufacturing firms. Over time their share of export volume increases from 73 percent to 90 percent, as shown by Tables 13 and 14 for the shares of export and import volumes of the various NACE 1 chapters in the Appendix. The largest part of the remaining trade activity is performed by the *Wholesale and retail sector*, though its share is decreasing over time from 17 to 5 percent. Contrary to export volume distribution imports show a bit different picture. While, *Manufacturing* sector is responsible for the majority

Table 1
Number of observations by NACE chapters

NACE		Observations	share (%)
A	Agriculture, Hunting and Forestry	74300	5.96
B	Fishing	2400	0.19
C	Mining and quarrying	2956	0.24
D	Manufacturing	225316	18.07
E	Electricity, gas and water supply	5335	0.43
F	Construction	100096	8.03
G	Wholesale and retail trade	422198	33.86
H	Hotels and restaurants	39075	3.13
I	Transport, storage and communication	49220	3.95
J	Financial intermediation	11407	0.91
K	Real estate, renting and business activities	241213	19.34
L	Public administration and defence	12	0.00
M	Education	7553	0.61
N	Health and social work	12938	1.04
O	Other community service activities	40657	3.26
Q	Extra-territorial organisations and bodies	22	0.00
	No info	12227	0.98
	TOTAL	1246925	100

share of import volume (50-60 percent) a considerable share of product import (30-40 percent) is carried out through the *Wholesale and retail sector*. While most of this latter import volume consists of products that are sold to consumers directly, some will become inputs to manufacturing firms. The distinction between *Manufacturing* and *Wholesale and Retail* trade is important for example when assessing role of imported inputs of performance of firm or on income distribution of workers.

Given the relative high intensity of trade in the manufacturing sector, the rest of this paper (from Section 3 on) will concentrate on manufacturing firms.

2.5 Source discrepancies and representative power of data

This section discusses the representative power of IEHAS-CEFiG dataset regarding the volume of trade. First, we compare the firm level export information from the customs and APEH sources in the merged dataset. Second we compare the customs trade data to the official trade volume aggregate figures published by the Hungarian Statistical Office (KSH).

2.5.1 Two sources of export

The IEHAS-CEFiG dataset has two sources of exports. One is the balance sheet information from APEH, which contains the volume of export activity that is accounted in the books for a given year. The other source is the merged customs data, which captures all actual transactions. The actual figures from the two sources may be different, because APEH documents only those transactions where change in the ownership occurs, while customs data records transactions irrespective of the ownership status. [4]

A comparison of the two dataset finds a correlation of 0.95 between the export volumes, implying an acceptable difference. However, as shown in Tables 15 and 16 (in the Appendix) the discrepancy varies considerably across sectors and over time. Manufacturing sectors show the highest and most stable correlation with an average of 0.93. The other sectors, with the exception of *Agriculture and Forestry* demonstrate low correlation. If sectors of manufacturing are examined separately, the correlations of the two sources of export data appear strong on average. However sectors, such as *Textiles*, *Printing and Publishing* and *Radio, television and communication equipment* show average correlation lower than 0.8.

While correlation describes strength of the relationship of the variables it does not assess scale issues. Therefore, in Table 17 the differences in the sums of volumes for a given sector in the given year are examined. The figures express the share volume by which customs data exceeds the book report. [5] While on average, differences are acceptable, in several sectors, especially in *Tobacco products*, *Wearing apparel* and *Tanning and dressing of leather* larger discrepancies are present.

2.5.2 Representativeness of volume data

To show the representative power of IEHAS-CEFiG in Table 2 the sums of all export and import values in the data are compared to the official annual product trade volumes published by Hungarian Statistical Office (KSH) . We find that data sums up to 95 - 97 percent of the trade volume thus published. The discrepancy stems from methodological differences. The official figure incorporates some financial services [6] as product trade, while we do not find that in IEHAS-CEFiG.

Also, as indicated by second row for 1996 in Table 2 a methodological change

[4] The discrepancy is also influenced by accounting techniques: the accounting and actual exports appear in different years.
[5] If e.g. the figure is 85.7, it suggest that 85 percent of the customs data should be added to the APEH data to make the two sources of data equal.
[6] e.g. such as leasing

Table 2
Comparison of KSH and IEHAS-CEFiG trade volume data in hundred Bn. HUFs.

	KSH		IEHAS-CEFiG	
	import	export	import	export
1992	8.8	8.4	6.7	6.8
1993	11.6	8.2	9.4	7.0
1994	15.4	11.3	14.0	10.3
1995	19.4	16.2	18.2	15.4
1996	*27.6*	*23.9*		
1997	39.6	35.7	37.9	34.6
1998	55.1	49.3	53.7	48.4
1999	66.5	59.4	64.7	58.5
2000	90.6	79.4	86.2	73.0
2001	96.7	87.5	95.1	86.2
2002	97.0	88.7	94.3	87.1
2003	107.0	96.4	104.1	93.5

The trade volumes are in current prices. The second official KSH figures for 1996 (*in italics*) are calculated retrospectively by new method introduced from 1997 on.

occurs at the KSH which broadens 'special trade' category of custom-free areas. Furthermore, the difference also comes from the fact that customs data and KSH treats arm's length and non-arm's length transaction differently. Despite the aforementioned differences, IEHAS-CEFiG created from raw customs transaction level data seems to be able to grasp the majority of Hungarian product trade.

3 The Prevalence of Trading Activity at firm level

The key interest in examining firm level datasets on trade activity is that it gives a more detailed picture about what is behind aggregate trade flows and allows us to see whether findings are consistent with trade theories. This section looks at trading firms

3.1 Concentration

Recent stylised facts suggest that trading firms are fairly scarce and there is a very strong concentration of exporting and importing activity at the firm level (see eg. Bernard et al. (2007), Bernard & Jensen (1999)).

To illustrate the propensity to trade of Hungarian manufacturing firms, Table 3 presents the key statics and compares it with results from other countries.

In Hungary, less than third of the firms were exporters and about third were importers in 1999, and the distribution of export and import volumes were both more concentrated than that of sales.

Table 3
Participation Rate and Concentration: International comparison

	Hungary	Italy	U.S.	Sweden	Belgium
% Exporters	27.7	70.6	27	71	41.2
% Importers	33.2	69.3	14	60	43.2
Gini Exports	0.936	0.825	0.972	.	0.959
Gini Imports	0.945	0.965	0.965	.	0.956
Gini Sales	0.922	0.807	0.916	.	0.873 (VA)
	our paper	Castellani et al. (2008)	Bernard et al. (2007)	Andersson et al. (2007)	Muûls & Pisu (2007)
	Firms, 1999	Firms, 1997	Plants, 2002	Firms, 2004	Firms, 1996
	all manufacturing	*empl.* > 20 manufacturing	all manufacturing	*empl.* > 10 manufacturing	all manufacturing

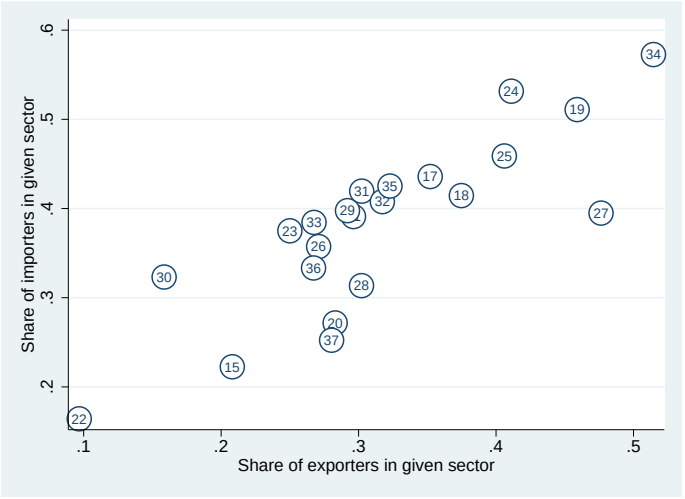
Compared to results computed for other countries, Hungary is slightly less open than Belgium, but more open than the U.S. At first glance, Hungarian data may look different to some other countries such as Italy or Sweden. However, this is due to different sampling restrictions used. Knowing from Mayer & Ottaviano (2008) that traders are on average larger in size in Europe, exclusion of small firms results in the overestimation of openness. To be able to compare to Sweden and Italy size adjustment has to be made on our data. For Hungary, the result are as follows. When excluding less than 10 employee firms 55% of the firms export and 59% import. When excluding the less than 20 employee firms results change to 66 and 70 percent respectively. Given these estimates, Hungary seems less open then Sweden, but seems comparable to Italy.

Next, the underlying sectoral distribution of the average 27% export and 33% import participation rate of the manufacturing sector is investigated. Figure 2 shows the share of firms that export in each manufacturing sector plotted against the share that import in 1999. Most open sectors in terms of exports are *34 - Motor vehicles* (51%), *28 - Basic and Fabricated metals* (48-30%) and *25 - Rubber and Plastic products* sector and *24 - Chemicals* sector both with (41%). The least open sectors in terms of export are the *22 - Printing and publishing* sector (10%) and *30 - Office Machinery* sector (16%).

Tables 18 and 19 (in the Appendix) show the export and import participation rate within sectors for all the years of the sample. Remember, that there is a break in the data from 1999 to 2000, the share of traders are systematically higher in the late periods across all sectors due to the lack of small firms. Otherwise trading propensity shows stability over time across sectors.

Sectors with high share of exporters tend to have high share of importers. The

Fig. 2. **Share of exporters and importers by sector in 1999**



The graph plots the share of exporting firms against the share of importing firms in manufacturing sectors. Each ball represents an industry with the corresponding NACE code indicated on it. Sector 16 of *Tobacco products* is excluded due to the small number of firms, who are all traders.

high correlation of the within sector participation rates is also apparent in Figure 2. This is due to the fact, that most firms perform both exporting and importing activity. Thus for more precise examination of trading activity, four trade status categories have been created. These are the non-trading firms, the firms that import only, firms that export only, and firms that import as well as export (two-way traders). Table 4 shows the share of firms in each status for 1999. It shows, that 38.5% of the firms engage in trading activity, either exporting, importing or both. Five and half percent of the firms on average engage in exporting activity only, on average 11 percent of the firms import only and on average 22.2 percent of the firms engage in both activities. This suggest, that most of the trading manufacturers in the Hungarian economy are two-way traders. There are only some sectors, where share of exporters-only is relatively high e.g. *Wood* and *Basic Metals*.

3.2 How different are traders?

Firms engaged in international trade look different along a number of dimension. Since Bernard & Jensen (1999)'s seminal empirical paper on U.S. exporters, several works have documented that firms involved in international trade are different from non-trading firms in many aspects. These firms employ more and better skilled workers, pay higher wages and are more productive than firms selling within borders only. Many of these differences related to the operation of the firms were found and documented both for the U.S. and European countries for example in Bernard et al. (2007) or in Mayer & Ottaviano (2008). These phenomena is also documented for Hungary by Altomonte &

Table 4
Share of firms in different trade status in sectors of manufacturing 1999, (%)

	industry	Num. Obs.	share of non-trader	exp. only	imp. only	two-way trader
15	Food products and beverages	2705	71.2	6.5	8.0	14.3
16	Tobacco products	7	0.0	0.0	14.3	85.7
17	Textiles	764	51.3	5.1	13.5	30.1
18	Wearing apparel	1158	55.0	3.5	7.5	33.9
19	Tanning and dressing of leather	366	45.4	3.6	8.7	42.3
20	Wood	1244	61.9	10.9	9.8	17.4
21	Pulp, paper	243	57.2	3.7	13.2	25.9
22	Publishing, printing	2625	80.1	3.5	10.2	6.2
23	Coke, refined petroleum	8	62.5	0.0	12.5	25.0
24	Chemicals, and chemical products	523	41.7	5.2	17.2	35.9
25	Rubber and plastic products	1059	47.1	7.0	12.3	33.6
26	Other non-metallic mineral products	764	59.0	5.2	13.9	21.9
27	Basic metals	233	45.9	14.6	6.4	33.0
28	Fabricated metal products	2724	61.1	7.5	8.7	22.7
29	Machinery	1997	56.1	4.1	14.7	25.1
30	Office machinery and computers	164	67.1	0.6	17.1	15.2
31	Electrical machinery	708	55.6	2.4	14.1	27.8
32	Radio, television and comm. equip.	520	55.6	3.7	12.7	28.1
33	Medical, precision and optical instr.	796	58.0	3.5	15.2	23.2
34	Motor vehicles	241	38.6	4.1	10.0	47.3
35	Other transport equipment	127	55.9	1.6	11.8	30.7
36	Furniture	1059	61.9	4.8	11.4	21.9
37	Recycling	107	65.4	9.3	6.5	18.7
	All manufacturing	20142	61.3	5.5	11.0	22.2

Békés (2009).

These differences calculated for the IEHAS-CEFiG dataset are summarised in Table 5. Each row displays the average difference between exporter and non-exporters and importers and non-importers in a firm characteristic. The first and the third columns represent ordinary least squares regressions with log of employment, value added per worker, average wage and capital per worker as dependent variables on exporter and importer dummies respectively. The second and fourth columns include employment and sectoral dummies as controls. When employment is the dependent variable employment control is omitted.

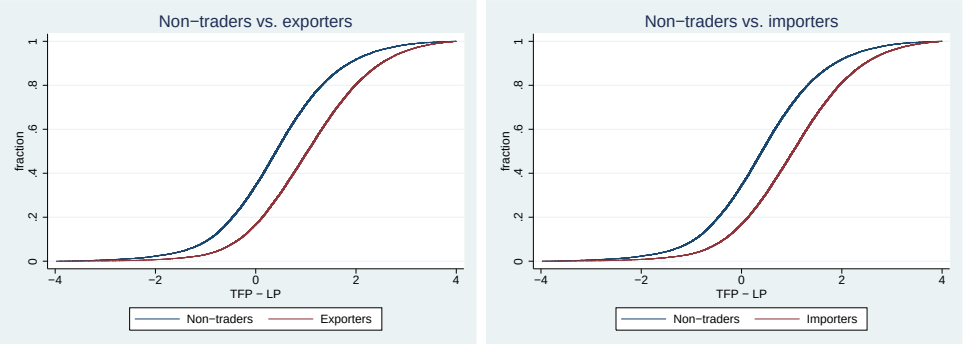
As dependent variables are in logs the coefficients can be interpreted as per-

Table 5
Exporting and importing premia across manufacturers

	exporter premia		importer premia	
	(1)	(2)	(3)	(4)
log of employment	1.525	1.467	1.313	1.276
log of value added per worker	0.388	0.398	0.533	0.524
log of TFP [7]	0.850	0.374	0.947	0.478
log of average wage	0.395	0.255	0.456	0.312
log of capital per worker	0.346	0.477	0.357	0.5
additional covariates	none	sector empl.	none	sector empl.

centage differences. That is, coefficient 1.46 with the log of employment implies: exp(1.46)-1 = 330% higher employment on average in exporter firms. Analogously, other coefficients imply that exporters produce 39 percent more value added per worker, are on average 44 percent more productive, pay 28 percent higher wages and own 47 percent more capital per worker than non-exporting firms. The differences are similar when comparing importers to non-importers, with minor differences: importers have 120% more employment, produce 52% more value added per worker and 47% higher TFP, pay 31% more average wage, are 50% more capital intensive. The performance premium of the traders, either exporters or importers is general, is not caused by outliers. In Figure 3 the cumulative density of log of TFP of non-trading firms is compared to that of exporters and importers. The picture shows that in both cases traders on average outperform non-traders in all deciles of the productivity distribution.

Fig. 3. Cumulative distribution of FTP comparing traders and non-traders

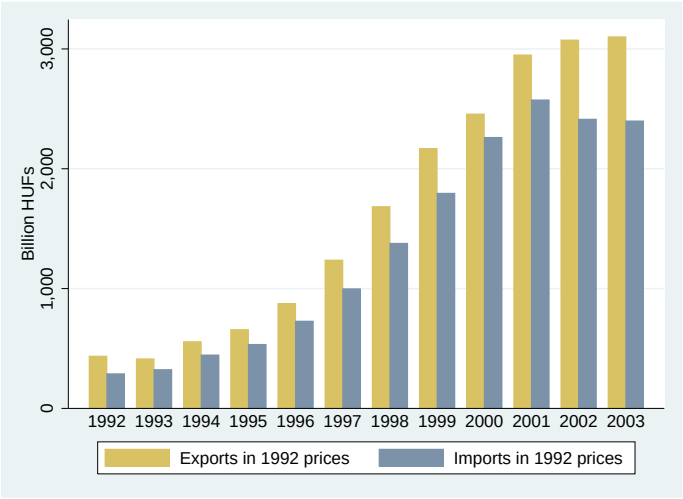


(a) Exporters premia (b) Importers premia

3.3 Distribution of trade volume

International research on traders reveals that only a few firms are responsible for most of the trade volume, see e.g. Bernard et al. (2007) or Mayer & Ottaviano (2008). That is, trade volume is highly concentrated. This section describes the distribution of the volume of trade in the Hungarian manufacturing sectors. To provide a general picture, first the evolution of the real trade volume over time is displayed in Figure 4. Both volumes show steady increase in real terms: the average yearly growth of export volume is 19.1 percent, while the corresponding import figure is 23 percent.

Fig. 4. **Manufacturing firms direct export and import volume 1992-2003**



The graph shows the yearly volume of exports and imports. Both are deflated to 1992 prices and are expressed in billions of HUFs.

The cross sector distribution of manufacturing trade volume is rather unequal. Table 6 summarises the share of each NACE-2 sectors from the volume of export and import in 1999. The major contributor to both import and export volume is the sector 34 of *Motor vehicles*, which is responsible for 23 and 21 percent of the export and import volume respectively. Other main contributing sectors are the *Radio, television and communication* sector with 15 and 18, the *Office machinery and computers* sector with 11 and 11, and the *Electrical machinery* sector with 9 and 8 and percentages shares from the export and import volumes of manufacturing. While other sectors hold only a small share from the volumes, we find that export and import volume shares across sectors are highly correlated. In Figure 5 we plot the share of export volume in a given sector against the share of import volume in the same sector.

In most sectors the bulk of the trading in volume is carried out by a few firms only, and thus trading activity is very concentrated. In 1999 the largest 5 percent of exporters were responsible for 81.5 percent of the total trade, while in case of imports the figure is 84.4%. To further illustrate the extent

Table 6
Volume shares of manufacturing sectors of exporting and importing in 1999, in (%)

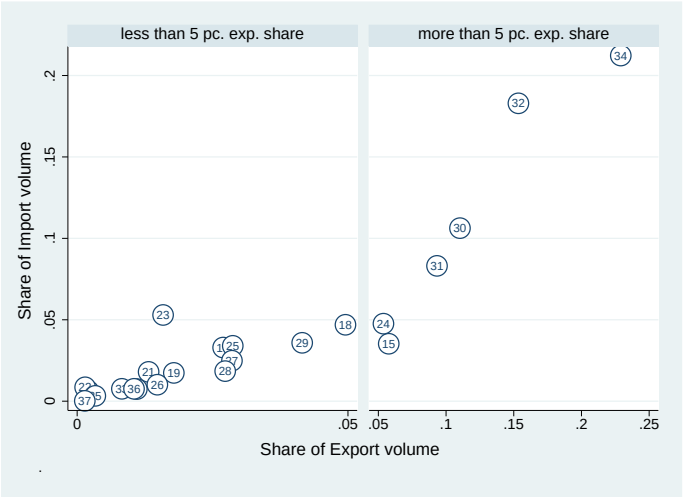
	industry	obs.	share of export volume	share of import volume
15	Food products and beverages	2705	5.8	3.5
16	Tobacco products	7	0.2	0.6
17	Textiles	764	2.7	3.3
18	Wearing apparel	1158	5.0	4.7
19	Tanning and dressing of leather	366	1.8	1.7
20	Wood	1244	1.1	0.7
21	Pulp, paper	243	1.3	1.8
22	Publishing, printing	2625	0.1	0.9
23	Coke, refined petroleum	8	1.6	5.3
24	Chemicals, and chemical products	523	5.4	4.8
25	Rubber and plastic products	1059	2.9	3.4
26	Other non-metallic mineral products	764	1.5	1.0
27	Basic metals	233	2.9	2.5
28	Fabricated metal products	2724	2.7	1.8
29	Machinery	1997	4.2	3.6
30	Office machinery and computers	164	11.0	10.6
31	Electrical machinery	708	9.3	8.3
32	Radio, TV and communication equip.	520	15.3	18.3
33	Medical, precision and optical instruments	796	0.8	0.8
34	Motor vehicles	241	22.9	21.2
35	Other transport equipment	127	0.3	0.3
36	Furniture	1059	1.0	0.8
37	Recycling	107	0.1	0.0
	TOTALS	20142	100.0	100.0

of this concentration Table 7 presents the share of the largest exporters and importers. Both the export and import block consists of two columns. The first shows the share of the largest 5 percent traders in sectoral trade volume, while the second shows the corresponding figure for the largest 10 percent.

The sectors, where trading volume is most concentrated across exporters are the *Motor vehicles*, *Basic Metals*, and *Pulp and Paper* and *Radio and television* sectors where the top 5 percent are responsible for more than 70 percent of the sectoral trade volume. In case of imports the picture is similar, though *Wood* and *Office Machinery* sectors also appear rather concentrated.

While examining the share of the top exporters and importers in each sector is very illustrative, also Herfindahl indices of concentration were calculated for the better cross section comparison. Tables 22 and 23 present concentration indices in the Appendix confirm previous findings. Patterns of concentration

Fig. 5. **Export and import share of volume by sector in 1999**



The graph plots the share of sectors of total manufacturing export volume of 1999 against the share of corresponding import volume. Each ball represents an industry with the corresponding NACE code indicated on them. For better visibility sectors below and above 5 percent of share of total export volume are graphed separately.

Table 7
Share of top traders in sectoral trade volume in 1999, (%)

		top exporters		top importers	
	industry	5%	10%	5%	10%
15	Food products and beverages	56.6	74.3	67.2	81.0
17	Textiles	58.2	70.6	63.9	75.9
18	Wearing apparel	49.4	65.3	50.7	66.0
19	Tanning and dressing of leather	44.8	60.7	48.4	63.5
20	Wood	65.3	80.2	75.4	87.3
21	Pulp, paper	73.7	89.3	60.7	82.4
22	Publishing, printing	58.3	78.0	69.2	83.3
24	Chemicals, and chemical products	75.3	88.6	70.4	84.6
25	Rubber and plastic products	65.0	80.7	61.0	78.4
26	Other non-metallic mineral products	63.4	79.8	50.0	70.3
27	Basic metals	74.9	88.8	79.0	90.3
28	Fabricated metal products	57.4	71.7	60.5	76.8
29	Machinery	66.5	80.5	68.2	80.6
30	Office machinery and computers	54.8	76.8	76.1	98.5
31	Electrical machinery	60.2	76.2	60.1	77.8
32	Radio, TV and communication equip.	81.6	92.4	77.3	91.6
33	Medical, precision and optical instruments	60.8	81.0	62.3	77.5
34	Motor vehicles	83.2	89.9	87.5	92.8
35	Other transport equipment	55.9	72.7	49.7	72.2
36	Furniture	52.6	70.3	60.2	75.2

The table shows the percentage share of sectoral export/import volume of the 5 and 10 percent of the biggest exporters/importers. Sectors with less than 50 firms are not considered in this listing

are rather stable over time for sectors with low concentration, while a considerable noise is detectable for concentrated sectors. Two key manufacturing industries, *Motor and vehicle* and *Office machinery* show increasing within sector concentration over time, both in terms of export and import volumes. The only sector, that shows considerable decrease in concentration is *Electrical machinery*, where the within sector export Herfindahl index drops from 0.2 to 0.08, suggesting that much more firms got involved in international activities.

3.4 Spatial distribution of trade

Though Hungary is a small country both population and economic activity are rather concentrated is space. Almost 40 percent of economic activity takes place in the capital Budapest, which holds about twenty percent of the population and twenty-four percent of the manufacturing employment. The most productive and economically prospering regions are those close to the capital and those in north-west Hungary.

The distribution of economic activity and trade is jointly shaped by that of population, the heritage of communist economic spatial planning and location choice of the incoming FDI in the early-mid 1990's [8]

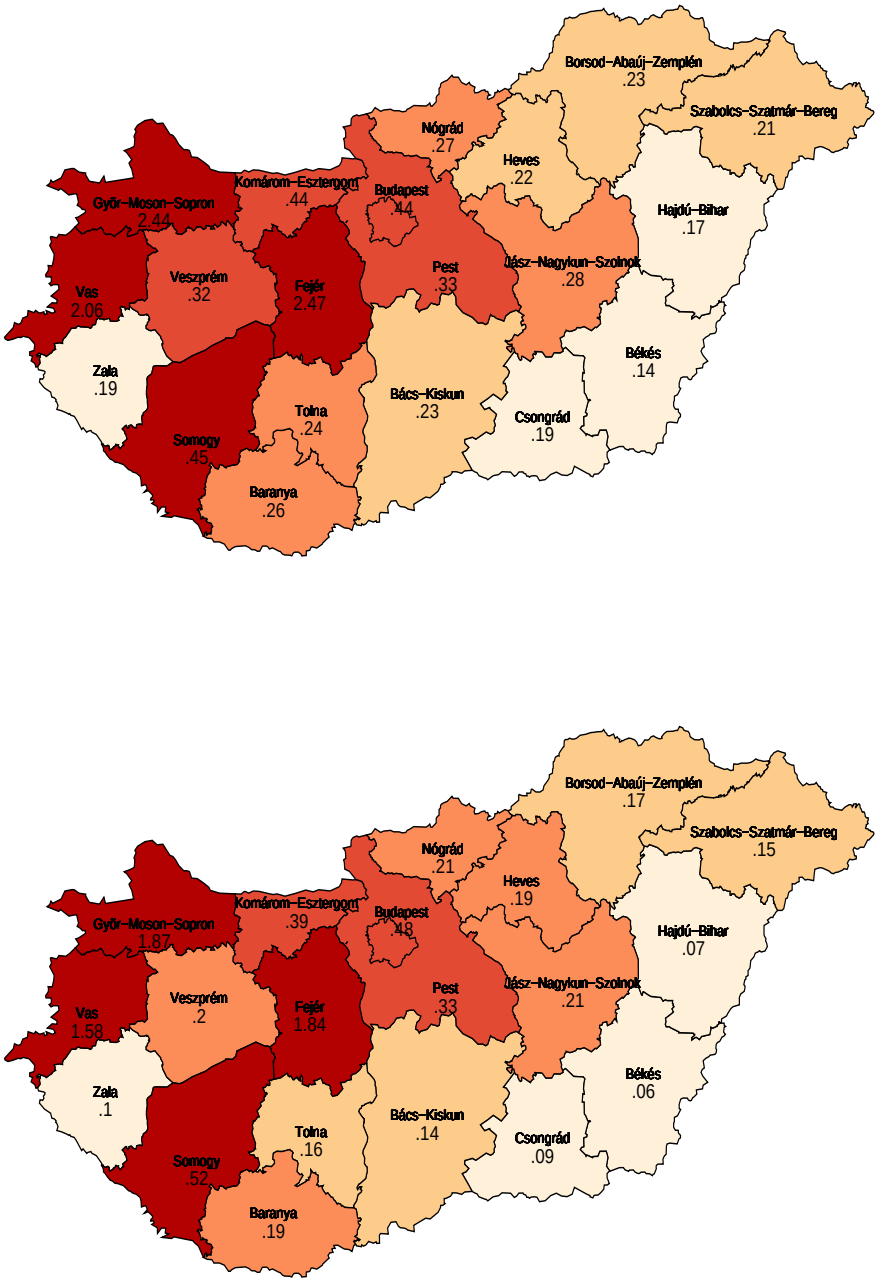
In Figures 6 spatial distribution of trade volumes per capita are summarised over NUTS-3 level spatial entities of Hungary, which contain the 19 counties (*megye*) and the capital Budapest.

Vas, Győr-Moson-Sopron, Fejér are found to be the leading export and import regions with per capita exports more than 2 million HUFs and per capita imports one and half million. The figures clearly illustrate the west and north bound nature of trading locations. The export volume distribution and also that most importing activity is concentrated towards the western, Austrian border.

While aforementioned geography is driven by volume considerations, another picture can be drawn by looking at the average trade involvement of firms. In Figure 7 the average shares of exports in sales are plotted. Though, the east-west division still dominates, some eastern and southern regions appear rather active in trade such as Baranya and Szolnok counties.

[8] As Brulhart & Koenig (2005) find in their examination of post-communist European countries, transition favours regions that are proximate to the large incumbent EU market, both in terms of wages and employment.

Fig. 6. **Export and Import per capita by counties in mill. HUFs in 1999**

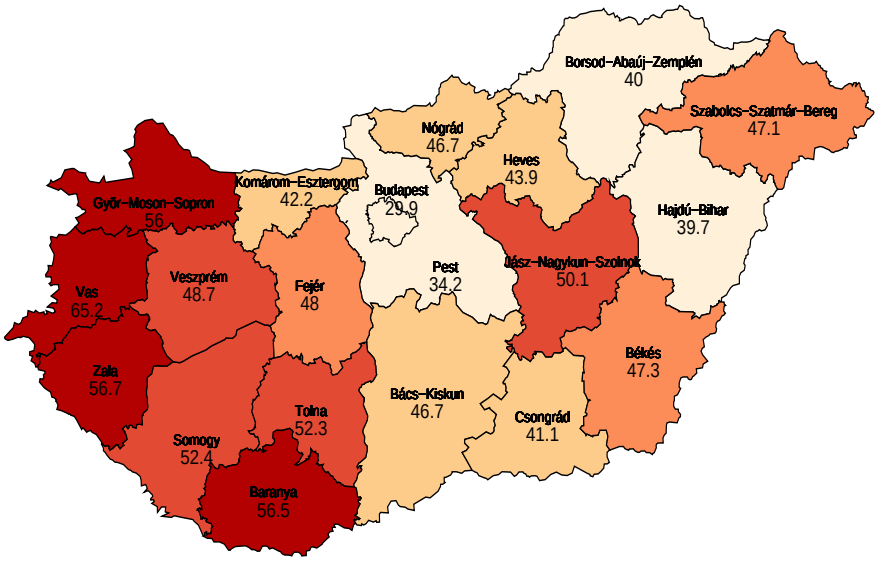


The graphs show the distribution of export (above) and import (below) value per capita in each county in million HUFs for year 1999. The colours deepen towards red with the higher place a region takes in the quintile of the distribution

4 Distribution of Products and Countries

Along with the relative scarcity and concentration of trading volume, recent empirical works on international trade see e.g. Bernard et al. (2007), find

Fig. 7. **Firms' average export per sales by counties in 1999**



The graph shows the distribution of average share of export in firms' sales in each county in million HUFs for year 1999. The colours deepen towards red with the higher place a region takes in the quintile of the distribution

that there is also a considerable heterogeneity across firms in terms of traded number of products and trading partner countries.

4.1 Products

Many firms trade only one product and with one country, however the larger share of trade in volume is carried out by firms trading many products with many countries. The importance of this observation is at least twofold. Once, it sheds more light on the nature of firm-level concentration of aggregate trade flows. Second, as e.g. Chaney (2008) argues, introducing firm heterogeneity and destination specific fixed-costs to gravity modelling, shows that contrary to the prediction of Krugman-type new trade models adjustments in reaction to increase in trade cost or distance does not all occur on the intensive margin but on the extensive one.

To portrait the characteristics of firms regarding the extensive margin, the number of traded varieties will be defined as the number of HS 6-digit level categories the firm is engaged in foreign trade with. Number of export destinations are the markets served by the firm, while the variety of source countries is used for imports.

Table 8
Distribution of exporters and Export value by Number of Products and Export Destination 1999

Share of Exporting firms (%)

	Number of products						
Number of countries	1	2-5	6-10	11-20	21-50	50+	All
1	20.3	15.0	4.3	2.8	1.6	0.2	**44.3**
2-5	4.0	18.1	7.5	4.4	3.2	0.8	**38.1**
6-10	0.3	2.2	1.8	2.5	1.4	0.6	**8.7**
11-20	0.0	0.6	1.3	1.8	1.3	0.5	**5.5**
21-50	0.0	0.1	0.4	0.9	1.0	0.7	**3.2**
50+		0.0		0.1	0.1	0.1	**0.2**
All	**24.7**	**36.1**	**15.3**	**12.5**	**8.6**	**2.8**	**100.0**

Share of Export value (%)

	Number of products						
Number of countries	1	2-5	6-10	11-20	21-50	50+	All
1	0.3	1.1	0.8	1.3	1.2	0.1	**4.9**
2-5	0.2	1.4	1.6	2.7	3.6	1.2	**10.8**
6-10	0.0	0.7	0.9	2.0	2.2	3.3	**9.1**
11-20	0.0	0.6	1.4	2.7	4.5	6.6	**15.9**
21-50	0.0	0.2	0.7	3.5	7.3	40.4	**52.0**
50+		0.0		0.1	1.9	5.3	**7.3**
All	**0.6**	**4.1**	**5.3**	**12.4**	**20.8**	**56.8**	**100.0**

Share of Exporting employment (%)

	Number of products						
Number of countries	1	2-5	6-10	11-20	21-50	50+	All
1	4.4	4.3	1.5	1.8	1.4	0.2	**13.5**
2-5	1.2	8.3	5.5	4.6	5.3	1.5	**26.4**
6-10	0.1	2.0	2.5	4.0	3.0	2.9	**14.4**
11-20	0.0	0.9	2.4	4.1	4.7	3.6	**15.9**
21-50	0.0	0.2	1.4	4.9	7.0	9.0	**22.6**
50+		0.0		0.5	1.5	5.3	**7.3**
All	**5.7**	**15.7**	**13.3**	**19.9**	**22.9**	**22.5**	**100.0**

On average firms export 7 types of products, while import 17 product categories, while they export on average to 3 countries and import from 4. However, looking at the distribution of these varieties reveals that only a few international traders can afford complex trade patterns. The most complex traders in

Table 9
Distribution of importers and Import value by Number of Products and Import Origin 1999

Share of Importing firms (%)

	Number of products						
Number of countries	1	2-5	6-10	11-20	21-50	50+	All
1	16.2	10.2	2.6	2.6	2.3	0.7	**34.6**
2-5	1.0	13.5	7.9	6.5	6.3	2.2	**37.4**
6-10	0.0	0.4	1.5	3.0	5.6	3.2	**13.8**
11-20			0.1	0.5	3.7	6.3	**10.7**
21-50				0.0	0.2	3.2	**3.4**
50+						0.0	**0.0**
All	**17.2**	**24.1**	**12.2**	**12.6**	**18.1**	**15.8**	**100.0**

Share of Import value (%)

	Number of products						
Number of countries	1	2-5	6-10	11-20	21-50	50+	All
1	0.1	0.2	0.1	0.2	0.5	0.2	**1.4**
2-5	0.0	0.4	0.5	0.6	1.9	2.0	**5.4**
6-10	0.0	0.1	0.2	0.8	2.3	4.2	**7.6**
11-20			0.0	0.2	2.7	13.1	**16.0**
21-50				0.0	0.1	68.6	**68.8**
50+						0.9	**0.9**
All	**0.1**	**0.7**	**0.9**	**1.9**	**7.4**	**89.0**	**100.0**

Share of Importing employment (%)

	Number of products						
Number of countries	1	2-5	6-10	11-20	21-50	50+	All
1	3.8	2.4	0.6	0.6	0.8	0.6	**8.8**
2-5	0.2	5.5	3.6	3.1	3.9	2.4	**18.6**
6-10	0.0	0.3	1.0	2.9	6.2	5.1	**15.4**
11-20			0.1	0.5	6.8	19.1	**26.4**
21-50				0.0	0.3	28.8	**29.1**
50+					0.0	1.7	**1.7**
All	**3.9**	**8.1**	**5.2**	**7.1**	**18.0**	**57.6**	**100.0**

Hungarian manufacturing, export over 60 different products, to over 50 countries, while the most complex importers buy over 200 products types, from over 50 countries. Note that at least 100 firms satisfy each criteria.

In Table 8 the distribution of firms, export volume and employment over

categories of number of products traded and number of countries served is displayed. The table is constructed in the manner of Table 4 in Bernard et al. (2007), however we use wider categories for better description of the underlying distribution. The first block shows, that most firms export only to a single country (44%), furthermore only a single product. The number of firms gradually decrease with an increase in the number of countries or products. Though the single country, single product firms are numerous, their share of export volume and employment is negligible. Multi-product and multi county exporters employ the majority of the exporting workforce and carry out the bulk of the exporting in volume.

Similar exercise is conducted for the analysis of importing activity in Table 9. Firms are more likely to trade with many countries and many product when they import than when they export. Multi county and product importers are responsible for the overwhelming majority of import value (94%) and about three quarters of the employment of all importing firms. These statistics shed light on the importance of export and import platforms of multinational firms that shape Hungarian foreign trade.

When Hungarian result are compared to those obtained for the US in Bernard et al. (2007), one finds that though the share of single-product exporters is similar, share of Hungarian single-country exporters is less. This result may be the consequence of different country sizes and greater set of neighbouring countries. The distribution of employment and export value shows less concentration in Hungary, though the pattern is rather similar.

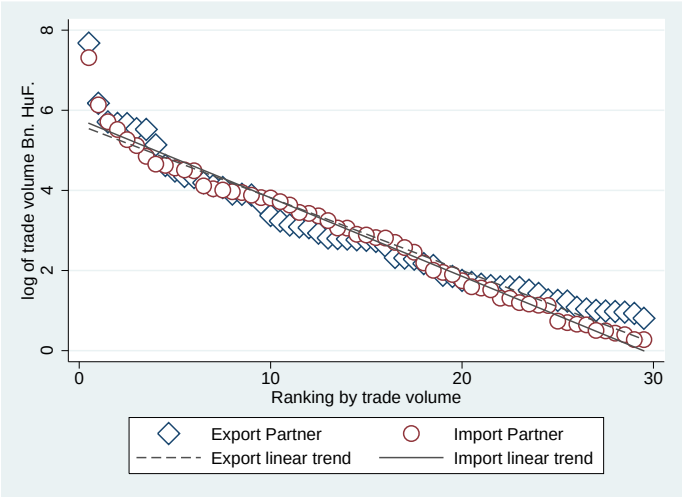
However examining the extensive margin of trade might not tell us that much about economic decision-making as e.g. Bernard et al. (2007) and many others suggest.

4.2 Countries

The IEHAS-CEFiG Hungary dataset ranges over a relatively long period of time including periods when fundamental changes took place in the economy. Between 1992 and 2003, Hungarian firms entered a great number of new export markets and a large shift also took place in the direction of exporting from former socialist economies to competitive EU-markets. As for the import origins the top supplier have undergone only a minor change in their order of importance. However, the share of east-asian countries is steadily increasing towards the end of the period. Thanks to liberalisation, increased foreign competition and the collapse of former communist markets, important changes took place in the destination of Hungarian exports and origin of imports.

Hungarian foreign trade involves over hundred countries. If we take a look at

Fig. 8. **Partner countries sorted according trade volume in 1999**



The figure plots the export and import value traded with partner countries on a log scale. The countries are sorted in a decreasing order with respect to volume from left to right.

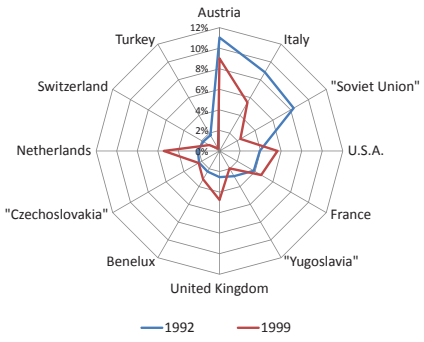
the Figure 8 we not only see the largest trading partners, but on the x-axis also a fairly full range export and import partner countries and their corresponding trade volumes. Interestingly, sorted the partners according to trade volume of both export and imports resembles a linear decay on an exponential scale. Focusing currently on the left side of this distribution, Table 27 and Table 28 collect the top 15 trading partners (both in Appendix).

The top export partners are quite stable over time: Germany is in the lead with over 30% of manufacturing export share, followed by Austria and Italy. Indeed, the composition of top 15 export destination has hardly changed overtime.

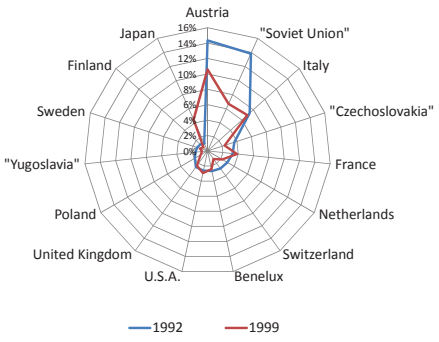
The collapse of Soviet Union diminishes the importance of the eastward trade. However, the neighbouring former planned economies remain important: these countries play an important role in case of first-time exporters, which may be explained by the lower fixed costs of these markets. To see a more clear picture on the foreign trade with former socialist and communist countries, in Table 31 we display the top exporting partners keeping the pre-transition geopolitical entities. Tables include Soviet Union, Yugoslavia and Czechoslovakia in quotation marks, implying that they were artificially created for comparison purposes as collection of former members.

Using these artificial countries on panel (a) of Figure 9 shows, how the relative importance of important export partners changed from 1992 to 1999. The blue line corresponds to the countries share in trade volume in 1992, the red shows the corresponding 1996 value. The graphs contains countries by their 1992 importance. Due to illustration purposes, Germany is excluded from the graphs. The picture indicates, that Austria, Italy and "Soviet Union" has lost from their former relative importance by 1999, while Netherlands, UK

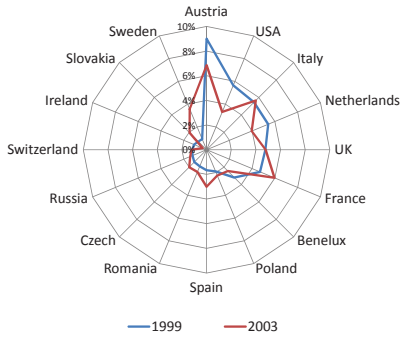
Fig. 9. Changes in manufacturing trade partner countries 1992 - 1999 and 1999-2003



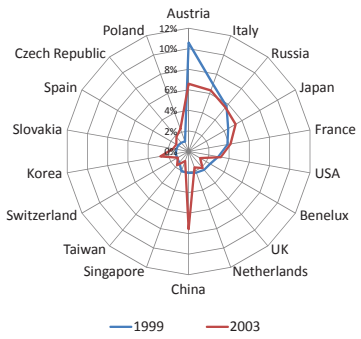
(a) Early Export changes



(b) Early Import changes



(c) Late Export changes



(d) Late Import changes

and USA show an increased share of exports. On panel (c) the export changes occurred from 1999 to 2003 are plotted.[9] The relative importance of USA and Austria is shown to have been decreasing, while the graphs shows an increase in that of Sweden, Slovakia and France. Changes in the relative position of top export partners are more moderate in the 1999-2003 period.

On the import side Germany is the leading partner also, with around 30% of the manufacturing imports. It is followed by Austria, Russia and Italy with half, third and less of the German share in 1992 and 1999. By 2003 east-asian import becomes dominant, China becomes one of the most prominent suppliers and several other Asian countries (Korea, Malaysia and Taiwan) appear among the top import sources, as Table 28 shows.

Just as in the case of exports, the examination of early period import changes also need to take geopolitical changes into account. On panel (b) of Figure 9 import changes from 1992 to 1999 are plotted. The relative position loss of Austria and "Soviet Union" is visible. Changes in the position of "Soviet Union" and its successor countries means share drop from 13 to 7 percent.

[9] in the later years we do not use the artificial countries

Despite the sharp drop, Russia remains still an important import partner, through oil and gas mainly.

Concerning smaller partners the figure shows a decrease in the relative importance of Switzerland and the Netherlands, and shows a considerable increase in the position of Asian countries. In the later years of our sample the increasing importance of Asia in general and China in particular as global supplier is quite clearly visible in the Hungarian data.

By the end of our sample period former communist countries become important suppliers once again, e.g. an increase in the relative importance of Slovakia, Czech Republic and Poland is indicated by panel (d) of Figure 9.

5 Summary

This note gave a basic overview of Hungarian international trade from the point of view of the firms through basic descriptive statistics from a specially compiled database: IEHAS-CEFiG Hungary. Focusing on the manufacturing sector a number of stylised facts has been pointed out about the Hungarian trading firms. These findings are in line with the recent international evidence.

1. Hungary is an open economy where about third of the manufacturing firms export and also about a third of them import, suggesting that in Hungary more firms participate in international trade than in the US or France.

2. Trade volume is very concentrated. The largest five percent of traders in are responsible for more than eighty percent of the export and import volume.

3. Like found in most countries, Hungarian trading firms are different than non trading firms along a number of dimensions. Traders are more productive, employ more than three times as many workers as nontraders, pay higher wager and are more capital intensive.

4. There is a great deal of trade related heterogeneity across firms both regarding exporting and importing activities.

5. Though, a large number of firms sell only a single product or just to a single country, most of Hungarian trade is carried out by multi-product firms trading with many countries.

6. Hungarian trade is concentrated spatially around the capital Budapest and some north-western regions.

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6 TABLES

Table 10
A listing of main variables

Variable	Description
id	firm ID
year	Year
nace	NACE 4 digit
sales	Sales*
labor	Employment, average annual
capital	Fixed assets
VA	Value added**
nomcapt	Subscribed capital
forsh	Share of foreign ownership
psh	Share of private ownership
materials	Materials costs
wagebill	Total wagebill paid in a given year
pt	PPI deflator, 1992==1
pe	Export price deflator, 1992==1
ph	Domestic price deflator, 1992==1
totexp	Total exports
totimp	Total imports
numdest	Number of countries firm exports to
numorigin	Number of countries firm imports from
expvarhs6	Export variety in terms different HS6 categories firm exports
impvarhs6	Import variety in terms different HS6 categories firm imports
city	Location of headquarters, city or settlement
kist150	NUTS-4 (150 stratification)
county	NUTS-3 (20)

*Annual, in Million HUFs, current price as all nominal variables unless otherwise indicated

**Value added is calculated the following way: Before 2001, VA equals Sales plus Capitalised value of self-manufactured assets minus Materials, Cost of goods sold and Other costs. After 2001, Other costs are not subtracted

Table 11
Number of observations by year and NACE chapters

		1992	1993	1994	1995	1996	1997	1998	1999
A	Agriculture, Hunting and Forestry	3136	4025	4543	5108	8689	8940	9951	6594
B	Fishing	46	53	65	70	428	546	670	102
C	Mining and quarrying	126	165	182	206	233	258	282	291
D	Manufacturing	11146	12932	14175	15511	16855	18892	20037	20142
E	Electricity, gas and water supply	185	252	306	340	359	415	430	439
F	Construction	5446	6178	6950	7764	8709	10073	10880	10804
G	Wholesale and retail trade	19160	23477	27873	32017	35312	39451	41818	41871
H	Hotels and restaurants	1801	2220	2688	3084	3500	4100	4483	4558
I	Transport, storage and communication	2196	2567	3012	3448	4017	4627	5100	5288
J	Financial intermediation	555	648	751	862	978	1120	1272	1333
K	Real estate, renting and business activities	11276	13889	16687	19571	22979	27186	30083	31325
L	Public administration and defence							1	
M	Education	354	429	498	579	677	804	887	941
N	Health and social work	352	469	578	766	1038	1391	1599	1717
O	Other community service activities	2022	2423	2836	3513	3807	4338	4955	5074
Q	Extra-territorial organizations and bodies		1	1	1	1	2	2	3
	No data	62	377	543	740	904	870	466	5610
	TOTAL	57863	70105	81688	93580	108486	123013	132916	136092

		2000	2001	2002	2003	2004	2005	2006
A	Agriculture, Hunting and Forestry	3589	3544	3545	3394	3322	3098	2822
B	Fishing	55	55	60	63	64	63	60
C	Mining and quarrying	171	172	180	180	186	168	156
D	Manufacturing	14039	13945	14437	14321	13798	13028	12058
E	Electricity, gas and water supply	332	341	353	391	410	400	382
F	Construction	4760	4904	5021	5050	4802	4616	4139
G	Wholesale and retail trade	23494	23700	24613	24422	23430	22022	19538
H	Hotels and restaurants	1727	1816	1892	1920	1856	1796	1634
I	Transport, storage and communication	2724	2767	2886	2883	2732	2587	2386
J	Financial intermediation	566	570	579	577	556	538	502
K	Real estate, renting and business activities	9686	9763	10191	10553	10046	9384	8594
L	Public administration and defence				1	2	2	6
M	Education	313	315	332	355	367	371	331
N	Health and social work	590	654	717	762	781	776	748
O	Other community service activities	1666	1667	1738	1752	1715	1666	1485
Q	Extra-territorial organizations and bodies	1	1	2	2	2	2	1
	No data	700	611	556	144	216	422	6
	TOTAL	64413	64825	67102	66770	64285	60939	54848

Table 12: Employment share of NACE chapters over years, in %

	NACE Chapters	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
A	Agriculture, Hunting and Forestry	11.8	10.3	9.4	8.8	9.2	8.5	8.3	7.0	6.6	6.1	5.7	5.4	5.0	4.8	4.7
B	Fishing	0.1	0.1	0.1	0.1	0.3	0.4	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
C	Mining and quarrying	0.6	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3
D	Manufacturing	36.0	35.3	35.3	36.0	36.0	37.4	37.9	37.5	40.8	40.4	39.5	39.1	37.8	36.4	37.1
E	Electricity, gas and water supply	4.6	4.7	5.2	5.1	4.8	5.0	4.2	3.9	3.8	3.7	3.5	3.5	3.3	3.3	3.2
F	Construction	6.6	6.6	6.6	6.1	5.7	5.9	5.9	6.0	5.5	5.6	5.5	5.5	5.4	5.4	5.3
G	Wholesale and retail trade	13.6	13.3	14.7	14.1	15.2	14.3	15.0	15.7	15.2	15.9	16.1	16.7	17.3	17.1	17.5
H	Hotels and restaurants	2.0	2.4	2.3	2.3	2.3	2.4	2.5	2.5	2.3	2.4	2.3	2.4	2.3	2.4	2.4
I	Transport, storage and communication	12.1	12.2	12.5	13.3	11.9	11.4	11.2	11.2	11.8	12.0	12.2	12.1	12.0	11.7	12.0
J	Financial intermediation	2.3	3.0	3.3	3.4	3.2	3.2	3.0	2.9	2.8	2.7	2.9	2.9	2.9	3.2	3.5
K	Real estate, renting and business activities	7.9	7.6	7.2	7.0	8.0	7.8	8.2	8.5	7.5	7.8	8.5	8.3	9.4	9.4	9.6
L	Public administration and defence	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M	Education	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3
N	Health and social work	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.6	0.6	0.7	0.8	1.0	1.2	1.1	1.3
O	Other community service activities	2.0	3.3	2.2	2.2	2.0	2.1	2.0	2.0	2.1	2.1	2.2	2.2	2.3	2.5	2.6
Q	Extra-territorial organizations and bodies	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	No data	0.1	0.2	0.0	0.7	0.3	0.5	0.1	1.4	0.2	0.1	0.1	0.3	0.4	2.2	0.0
TOTAL		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 13: Product export share of NACE chapters and years, in %

	NACE Chapters	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
A	Agriculture, Hunting and Forestry	3.6	1.7	2.2	2.1	1.8	1.4	1.2	0.9	0.9	0.8	0.7	0.6
B	Fishing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C	Mining and quarrying	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
D	Manufacturing	73.3	75.7	77.8	79.6	85.4	88.2	89.8	91.3	91.2	91.5	89.8	88.6
E	Electricity, gas and water supply	0.3	0.4	0.3	0.1	0.6	0.5	0.5	0.4	0.3	0.3	0.1	0.1
F	Construction	0.5	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1
G	Wholesale and retail trade	17.6	17.6	14.4	14.5	9.2	8.3	7.2	6.0	6.2	6.1	5.6	5.4
H	Hotels and restaurants	0.0	0.1	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I	Transport, storage and communication	0.4	0.4	1.9	0.2	0.2	0.1	0.1	0.1	0.3	0.2	0.2	0.2
J	Financial intermediation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
K	Real estate, renting and business activities	4.0	3.0	2.5	2.6	2.2	1.1	0.8	0.7	0.8	0.8	0.6	0.6
L	Public administration and defence	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M	Education	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
N	Health and social work	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
O	Other community service activities	0.3	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.0
Q	Extra-territorial organizations and bodies	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	No data	0.0	0.5	0.0	0.0	0.1	0.0	0.0	0.3	0.0	0.0	2.6	4.2
TOTAL		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 14: Product import volume share of NACE chapters and years, in %

	NACE Chapters	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
A	Agriculture, Hunting and Forestry	0.8	0.5	0.7	0.6	0.8	0.7	0.7	0.3	0.3	0.3	0.3	0.2
B	Fishing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C	Mining and quarrying	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1
D	Manufacturing	49.0	43.4	45.6	54.2	60.4	63.1	65.1	67.4	68.6	68.6	63.9	61.7
E	Electricity, gas and water supply	1.4	1.2	1.4	1.5	1.0	1.2	0.9	0.9	1.1	0.7	0.8	1.0
F	Construction	1.4	1.0	1.1	0.9	0.8	0.7	0.6	0.7	0.6	0.5	0.6	0.5
G	Wholesale and retail trade	37.3	42.3	40.9	34.7	31.0	30.3	29.2	27.2	26.0	26.7	28.9	30.1
H	Hotels and restaurants	0.5	0.3	0.2	0.2	0.2	0.1	0.0	0.0	0.1	0.0	0.1	0.0
I	Transport, storage and communication	1.8	3.8	4.3	3.4	2.2	1.4	1.2	1.3	1.6	1.2	1.1	1.0
J	Financial intermediation	0.3	0.6	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
K	Real estate, renting and business activities	6.6	5.3	4.7	3.4	3.1	2.1	1.7	1.5	1.4	1.5	1.6	1.3
L	Public administration and defence	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M	Education	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
N	Health and social work	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
O	Other community service activities	0.5	0.5	0.5	0.3	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1
Q	Extra-territorial organizations and bodies	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	No data	0.0	0.4	0.1	0.3	0.1	0.1	0.1	0.4	0.0	0.0	2.3	3.7
TOTAL		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 15: Firm level correlation of APEH and customs export volumes by year and NACE chapter

	NACE Chapters	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
A	Agriculture, Hunting and Forestry	0.86	0.65	0.92	0.97	0.95	0.95	0.95	0.96	0.97	0.98	0.71	0.95
B	Fishing	0.61	0.87	0.98	1.00	1.00	0.97	0.69	1.00	0.99	0.98	0.99	1.00
C	Mining and quarrying	0.56	0.34	0.25	0.29	0.22	0.38	0.45	0.33	0.37	0.33	0.50	0.51
D	Manufacturing	0.94	0.96	0.90	0.70	0.93	0.98	0.97	0.96	0.92	0.98	0.99	0.98
E	Electricity, gas and water supply	0.12	0.09	0.64	0.76	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.77
F	Construction	0.70	0.35	0.47	0.59	0.71	0.32	0.38	0.26	0.27	0.40	0.49	0.34
G	Wholesale and retail trade	0.82	0.89	0.70	0.56	0.36	0.37	0.39	0.22	0.44	0.34	0.53	0.13
H	Hotels and restaurants	0.15	0.71	0.85	0.94	0.14	0.51	0.51	0.32	0.13	0.21	0.27	0.48
I	Transport, storage and communication	0.53	0.78	0.83	0.78	0.47	0.20	0.09	0.09	0.12	0.15	0.91	0.89
J	Financial intermediation	0.00	0.16	0.02	0.10	0.01	0.04	0.01	0.13	0.04	0.00	0.00	0.00
K	Real estate, renting and business activities	0.66	0.57	0.51	0.75	0.23	0.17	0.24	0.28	0.40	0.46	0.24	0.11
L	Public administration and defence	.	.	.	.	.	.	.	.	.	.	.	.
M	Education	0.90	0.69	0.56	0.79	0.52	0.65	0.63	0.33	0.05	0.15	0.06	0.08
N	Health and social work	0.48	0.01	0.78	0.57	0.21	0.40	0.58	0.74	0.82	0.92	0.19	0.25
O	Other community service activities	0.18	0.16	0.10	0.05	0.06	0.18	0.17	0.06	0.16	0.50	0.02	0.02
Q	Extra-territorial organizations and bodies	.	.	.	.	.	.	.	.	.	.	.	.
	No data	.	.	.	.	.	.	.	.	.	.	.	.

Table 16: Firm level correlation of APEH and customs export volumes by year in manufacturing

		1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
15	Food products and beverages	0.92	0.94	0.99	0.97	0.99	0.99	0.98	0.98	0.97	1.00	0.99	1.00
16	Tobacco products	0.82	0.78	0.73	0.77	0.81	1.00	0.99	0.98	0.96	0.96	0.99	0.99
17	Textiles	0.68	0.81	0.81	0.71	0.60	0.67	0.71	0.70	0.94	0.62	0.90	0.92
18	Wearing apparel	0.88	0.90	0.85	0.86	0.84	0.86	0.88	0.95	0.97	0.99	0.99	0.99
19	Tanning and dressing of leather	0.80	0.82	0.87	0.91	0.86	0.92	0.85	0.82	0.81	0.79	0.77	0.78
20	Wood	0.76	0.76	0.89	0.67	0.84	0.92	0.95	0.91	0.96	0.98	0.98	0.99
21	Pulp, paper	0.99	0.90	0.99	0.99	0.95	0.96	0.98	0.95	1.00	1.00	0.98	0.94
22	Publishing, printing	0.85	0.37	0.55	0.58	0.81	0.90	0.93	0.78	0.81	0.87	0.62	0.80
23	Coke, refined petroleum	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
24	Chemicals, and chemical products	0.89	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99
25	Rubber and plastic products	1.00	0.76	0.93	0.95	0.93	0.78	0.68	0.82	0.78	0.93	0.94	0.80
26	Other non-metallic mineral products	0.95	0.99	0.99	1.00	0.96	1.00	1.00	0.99	0.99	0.99	0.99	0.94
27	Basic metals	1.00	0.98	1.00	0.99	0.99	0.99	0.99	0.98	1.00	1.00	1.00	1.00
28	Fabricated metal products	0.89	0.81	0.85	0.81	0.95	0.96	0.98	0.96	0.92	0.64	0.95	0.92
29	Machinery	0.90	0.94	0.96	0.96	0.96	0.97	0.97	0.98	0.98	0.99	0.99	0.96
30	Office machinery and computers	0.88	0.37	0.47	0.26	0.99	1.00	0.97	0.93	0.94	0.99	0.96	0.99
31	Electrical machinery	0.99	0.98	0.97	0.95	0.73	0.97	0.99	0.98	0.95	1.00	0.99	0.95
32	Radio, television and communication	0.35	0.47	0.59	0.70	0.91	0.94	0.88	0.90	0.66	0.96	1.00	0.99
33	Medical, precision and optical instruments	0.92	0.99	0.99	0.98	0.96	0.98	0.97	0.95	0.92	0.95	0.97	0.97
34	Motor vehicles	0.98	0.93	0.44	0.16	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
35	Other transport equipment	0.81	0.59	0.92	0.66	0.59	0.87	0.96	0.98	0.90	0.85	0.94	0.91
36	Furniture	0.80	0.87	0.90	0.87	0.93	0.95	0.97	0.95	0.98	0.99	0.98	0.97
37	Recycling	0.71	1.00	1.00	0.97	0.97	0.99	0.99	0.98	1.00	0.91	0.97	0.98

Table 17: Discrepancy in the sources of exports volumes

NACE	*industry*	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
15	Food products and beverages	-8.5	-8.0	1.2	-1.9	0.8	-2.8	0.9	4.4	2.4	-0.6	-4.6	-4.1
16	Tobacco products	85.7	68.4	51.5	41.0	38.2	70.9	66.0	75.0	69.8	44.0	23.2	31.6
17	Textiles	35.4	33.3	43.8	37.4	50.0	43.6	47.7	54.5	33.9	48.3	34.3	34.5
18	Wearing apparel	75.9	62.8	70.2	68.1	67.9	66.7	64.4	58.7	55.0	52.9	49.5	50.0
19	Tanning and dressing of leather	76.9	60.4	66.5	62.3	66.4	64.6	57.2	57.4	55.9	53.7	53.1	56.3
20	Wood	22.2	31.4	11.8	0.0	3.7	9.2	12.7	16.0	10.5	4.0	9.8	7.1
21	Pulp, paper	37.0	-8.3	4.3	-7.5	24.2	16.3	22.8	25.5	7.9	6.6	9.9	2.7
22	Publishing, printing	-54.5	-150.0	-275.0	-126.7	-33.3	-15.6	-2.1	-36.7	-18.4	-10.9	-51.7	-53.7
23	Coke, refined petroleum	8.7	5.1	-0.7	6.2	5.1	6.3	10.9	-10.8	-13.0	2.9	-1.5	-4.4
24	Chemicals, and chemical products	-16.4	-11.0	4.9	-0.2	2.4	-0.9	-1.3	-0.4	-1.0	3.5	0.1	1.6
25	Rubber and plastic products	7.4	-40.8	20.3	12.3	19.7	22.2	24.2	15.3	11.1	11.2	9.5	-12.5
26	Other non-metallic mineral products	5.0	4.4	4.6	-3.2	-1.1	3.0	4.0	8.5	4.1	6.1	3.6	8.0
27	Basic metals	11.5	-1.8	5.1	13.4	10.5	4.5	-1.7	-9.9	-1.9	-0.3	1.4	-3.9
28	Fabricated metal products	-20.2	-41.6	-16.0	-18.2	3.8	4.5	6.5	7.0	9.4	-7.5	4.8	2.7
29	Machinery	-20.7	-16.0	5.2	0.1	7.4	8.8	9.9	8.2	9.6	6.7	4.4	-2.3
30	Office machinery and computers	0.0	-562.5	-200.0	-125.0	-25.8	-25.9	-4.9	-14.8	-43.5	-2.8	19.8	26.4
31	Electrical machinery	17.0	-6.1	-1.3	2.0	-13.6	16.7	24.2	20.8	-1.7	2.1	-8.1	-19.5
32	Radio, TV and communication equip.	60.8	60.6	67.5	60.0	45.5	41.2	30.6	29.3	46.2	5.8	7.1	-7.1
33	Medical, precision and optical instruments	21.1	-7.7	5.4	5.8	9.1	1.1	8.1	14.3	20.0	15.0	15.6	11.8
34	Motor vehicles	-11.1	-8.2	-66.2	-202.2	2.7	-9.0	-2.1	1.4	-1.4	12.0	10.7	5.4
35	Other transport equipment	-25.0	18.2	23.5	16.3	34.4	25.2	-24.8	-9.6	14.2	20.5	13.8	21.1
36	Furniture	-2.9	-33.3	5.6	-2.5	9.3	3.8	8.5	12.7	5.3	5.0	11.4	6.4
37	Recycling	0.0	0.0	-3.2	-28.3	-26.7	-30.0	-8.0	-11.9	-4.5	18.3	-15.2	-6.0

Figures show the percentage difference of the APEH and CUSTOMS export data as: (CUSTOMS-APEH)/CUSTOMS*100

Table 18: Share of exporting manufacturers per sector, in %

NACE	Industry	avg. Obs	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
15	Food products and beverages	2252	25.0	21.1	20.4	22.4	22.7	22.5	22.3	20.8	32.8	34.6	33.6	34.7
16	Tobacco products	7	100.0	66.7	100.0	83.3	85.7	85.7	85.7	85.7	100.0	85.7	71.4	83.3
17	Textiles	625	42.2	40.8	37.0	33.1	33.0	30.3	32.5	35.2	49.6	52.6	52.2	52.9
18	Wearing apparel	932	48.1	47.5	47.3	44.0	42.7	40.0	36.9	37.5	47.9	53.3	52.2	50.0
19	Tanning and dressing of leather	319	50.4	49.2	52.7	49.4	50.6	49.6	48.2	45.9	56.4	57.5	56.5	56.3
20	Wood	977	30.4	29.5	31.1	31.3	27.4	27.7	28.6	28.3	39.4	42.7	37.8	37.6
21	Pulp, paper	201	36.7	33.6	35.4	27.9	34.0	28.8	31.1	29.6	41.3	48.0	40.7	46.6
22	Publishing, printing	1938	13.0	11.4	11.4	10.6	10.2	9.8	9.9	9.7	22.8	26.3	25.6	26.4
23	Coke, refined petroleum	7	50.0	75.0	42.9	18.2	25.0	22.2	22.2	25.0	75.0	75.0	80.0	66.7
24	Chemicals, and chemical products	452	39.8	41.3	44.6	41.2	40.7	38.2	42.0	41.1	51.8	56.5	58.2	55.3
25	Rubber and plastic products	881	32.5	34.6	37.4	37.0	36.8	39.7	40.7	40.6	53.1	57.2	59.6	58.3
26	Other non-metallic mineral products	600	32.9	30.3	29.5	31.9	30.1	28.6	28.3	27.1	38.8	42.6	38.3	42.8
27	Basic metals	197	50.7	46.9	49.7	45.4	44.4	44.4	44.7	47.6	61.0	65.7	69.7	71.6
28	Fabricated metal products	2126	32.0	30.2	29.7	29.5	28.9	29.8	30.4	30.2	46.1	49.6	48.0	47.2
29	Machinery	1671	29.2	28.4	27.5	28.3	27.7	26.6	28.8	29.2	43.1	48.3	51.0	49.9
30	Office machinery and computers	119	32.2	33.0	28.6	28.0	22.8	16.1	15.7	15.9	30.0	47.2	36.8	33.7
31	Electrical machinery	557	33.2	34.7	34.3	34.1	32.2	31.0	32.2	30.2	47.3	52.0	53.7	54.7
32	Radio, TV and communication equip.	417	31.4	33.1	36.5	35.1	32.1	28.1	26.8	31.7	46.4	55.0	50.4	52.4
33	Medical, precision and optical instruments	628	30.3	29.7	30.1	29.1	26.1	26.7	27.3	26.8	41.9	44.8	44.8	42.7
34	Motor vehicles	203	46.2	48.7	49.7	46.4	50.3	55.1	50.4	51.5	62.7	68.1	70.6	71.2
35	Other transport equipment	107	31.9	37.1	39.0	43.7	42.9	35.8	40.0	32.3	45.5	49.0	55.9	49.6
36	Furniture	847	34.3	32.3	32.4	31.0	29.9	26.9	28.6	26.7	38.5	41.1	42.4	39.5
37	Recycling	78	28.1	31.6	21.6	26.3	22.9	26.4	26.2	28.0	41.9	45.3	44.7	37.1

Table 19: Share of importing manufacturers per sector, in %

NACE	industry	avg. Obs	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
15	Food products and beverages	2252	34.2	28.1	27.4	25.7	23.0	22.3	22.4	22.3	34.2	37.4	38.6	40.3
16	Tobacco products	7	100.0	100.0	100.0	83.3	85.7	100.0	100.0	100.0	100.0	100.0	100.0	83.3
17	Textiles	625	53.1	50.9	47.8	41.6	42.3	39.8	40.6	43.6	59.4	61.8	60.6	63.0
18	Wearing apparel	932	54.9	54.6	52.8	49.1	46.7	44.7	42.1	41.5	55.6	56.1	57.9	57.2
19	Tanning and dressing of leather	319	59.3	56.9	56.4	52.2	56.7	54.9	50.9	51.1	63.8	63.6	60.5	59.6
20	Wood	977	30.2	28.2	29.6	27.2	25.1	23.5	25.3	27.2	38.8	40.2	39.5	44.3
21	Pulp, paper	201	46.8	47.7	46.2	40.2	44.8	39.6	39.5	39.1	52.7	58.8	59.7	64.3
22	Publishing, printing	1938	23.2	22.3	22.8	20.2	17.8	17.5	18.9	16.4	36.1	37.5	38.8	40.4
23	Coke, refined petroleum	7	100.0	75.0	57.1	36.4	25.0	22.2	22.2	37.5	75.0	75.0	80.0	66.7
24	Chemicals, and chemical products	452	57.3	57.2	56.7	52.7	53.4	49.6	53.2	53.2	66.4	69.0	68.2	70.7
25	Rubber and plastic products	881	42.9	40.9	45.6	40.3	41.3	43.3	45.7	45.9	59.1	66.6	65.4	66.3
26	Other non-metallic mineral products	600	44.6	40.6	37.1	37.3	37.5	33.4	33.3	35.7	50.0	52.7	54.0	58.7
27	Basic metals	197	45.9	41.7	38.9	40.0	38.8	37.0	40.1	39.5	52.2	61.7	58.9	63.9
28	Fabricated metal products	2126	35.3	34.5	34.1	32.1	30.5	30.0	32.6	31.4	47.8	52.3	52.9	52.3
29	Machinery	1671	40.7	38.6	38.4	38.3	37.3	38.2	38.9	39.8	58.5	62.0	61.6	61.9
30	Office machinery and computers	119	52.9	51.5	46.9	45.8	39.0	34.2	28.9	32.3	54.4	65.2	62.1	56.5
31	Electrical machinery	557	43.6	43.8	45.1	44.9	44.4	39.6	41.4	41.9	60.1	62.3	65.5	66.0
32	Radio, TV and communication equip.	417	44.6	43.2	43.7	44.9	38.3	33.7	36.5	40.8	64.1	65.3	63.3	69.0
33	Medical, precision and optical instruments	628	48.1	42.5	43.1	39.3	40.0	38.6	38.6	38.4	60.0	55.9	59.7	61.0
34	Motor vehicles	203	55.4	50.0	58.0	54.7	56.3	58.8	57.4	57.3	73.0	76.5	73.4	77.2
35	Other transport equipment	107	46.4	47.1	51.9	56.3	49.5	45.5	41.5	42.5	56.4	61.0	66.7	58.4
36	Furniture	847	40.5	40.5	38.6	35.1	33.1	31.9	31.8	33.3	43.2	47.7	50.0	49.3
37	Recycling	78	34.4	36.8	33.3	28.1	22.9	26.4	26.2	25.2	43.5	53.1	42.1	46.1

Table 20: Manufacturing sectors share in export volume, in %

NACE	*industry*	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
15	Food products and beverages	14.8	14.7	14.1	14.6	12.1	9.8	7.7	5.8	5.8	5.5	5.4	5.5
16	Tobacco products	0.5	0.4	0.5	0.5	0.7	0.5	0.4	0.2	0.1	0.1	0.1	0.1
17	Textiles	4.0	3.8	3.8	3.2	3.6	2.9	2.6	2.7	2.1	2.1	1.5	1.4
18	Wearing apparel	12.2	9.5	10.1	8.6	7.1	5.7	5.3	5.0	4.4	4.3	3.6	3.5
19	Tanning and dressing of leather	5.4	4.1	3.7	3.0	2.7	2.2	2.0	1.8	1.6	1.4	1.3	1.0
20	Wood	1.1	1.7	1.6	1.6	1.4	1.2	1.1	1.1	1.1	0.9	1.0	0.9
21	Pulp, paper	1.2	1.1	1.3	1.4	1.6	1.4	1.4	1.3	1.3	1.3	1.3	1.4
22	Publishing, printing	0.5	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1
23	Coke, refined petroleum	5.8	7.1	5.7	5.1	3.8	2.9	2.0	1.6	2.1	2.1	1.9	2.0
24	Chemicals, and chemical products	12.4	13.9	13.0	12.4	9.0	8.1	6.2	5.4	6.2	5.7	5.4	5.9
25	Rubber and plastic products	2.4	2.0	3.3	3.7	3.4	3.5	3.2	2.9	3.3	3.3	3.6	3.5
26	Other non-metallic mineral products	2.1	2.7	2.3	2.1	2.0	1.8	1.6	1.5	1.4	1.2	1.1	1.2
27	Basic metals	8.2	6.6	7.6	8.6	5.1	4.2	3.5	2.9	2.6	2.6	2.6	2.6
28	Fabricated metal products	3.8	3.4	3.6	3.5	3.2	2.9	2.8	2.7	2.8	2.6	2.6	2.7
29	Machinery	5.9	6.4	6.1	6.5	5.7	4.9	4.5	4.2	4.3	4.0	4.8	4.9
30	Office machinery and computers	0.4	0.2	0.2	0.2	3.5	9.5	10.9	11.0	6.8	7.3	5.5	2.9
31	Electrical machinery	6.7	6.5	8.3	9.0	11.2	9.6	8.8	9.3	11.3	14.3	14.0	9.5
32	Radio, TV and communication equipment	3.0	3.7	5.3	6.7	6.1	10.4	12.6	15.3	18.0	17.7	21.3	26.5
33	Medical, precision and optical instruments	1.4	1.3	1.3	1.4	1.1	1.0	1.0	0.8	0.8	0.8	0.7	0.8
34	Motor vehicles	6.4	8.5	5.5	5.5	14.3	15.6	20.6	22.9	22.3	21.3	21.0	22.2
35	Other transport equipment	0.4	0.5	0.5	0.4	0.5	0.5	0.4	0.3	0.4	0.5	0.4	0.5
36	Furniture	1.4	1.5	1.5	1.4	1.3	1.0	1.0	1.0	0.9	0.8	0.9	0.9
37	Recycling	0.1	0.2	0.4	0.4	0.3	0.2	0.2	0.1	0.2	0.2	0.1	0.1
	TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 21: Manufacturing sectors share in import volume, in %

NACE	*industry*	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
15	Food products and beverages	8.9	10.8	12.3	10.1	6.6	5.6	4.8	3.5	3.3	3.3	3.6	3.6
16	Tobacco products	2.0	2.2	1.7	1.3	1.1	1.0	0.8	0.6	0.3	0.4	0.3	0.3
17	Textiles	4.1	4.3	4.0	3.7	4.1	3.8	3.3	3.3	2.2	2.2	1.5	1.4
18	Wearing apparel	12.3	10.6	9.1	8.7	7.1	5.9	5.3	4.7	3.9	4.1	3.7	3.6
19	Tanning and dressing of leather	4.8	4.2	3.6	3.3	2.7	2.4	2.1	1.7	1.4	1.5	1.4	1.1
20	Wood	1.3	1.5	1.4	1.5	1.0	0.9	0.8	0.7	0.8	0.7	0.8	0.8
21	Pulp, paper	4.9	3.5	3.9	3.9	3.1	2.6	2.3	1.8	1.7	1.6	1.7	1.8
22	Publishing, printing	1.8	1.4	1.5	1.4	1.1	1.1	1.1	0.9	0.8	0.8	0.6	0.6
23	Coke, refined petroleum	12.5	12.4	9.1	11.9	11.1	8.1	5.5	5.3	8.2	6.8	6.7	6.8
24	Chemicals, and chemical products	10.4	10.8	10.5	10.1	7.3	6.2	5.1	4.8	4.2	3.7	3.5	4.5
25	Rubber and plastic products	3.8	4.0	3.8	4.3	3.3	3.4	3.6	3.4	3.3	3.1	3.6	3.7
26	Other non-metallic mineral products	1.7	1.9	1.7	1.6	1.5	1.2	1.2	1.0	0.8	0.9	0.9	1.1
27	Basic metals	7.0	3.9	6.4	7.9	4.4	4.5	3.0	2.5	2.4	2.1	2.2	2.0
28	Fabricated metal products	2.8	3.1	3.0	2.9	2.5	2.3	2.3	1.8	2.0	2.1	2.3	2.2
29	Machinery	4.5	5.2	4.8	5.1	4.2	3.9	3.8	3.6	3.4	3.4	4.4	4.6
30	Office machinery and computers	1.1	1.0	0.7	0.6	3.7	8.5	9.7	10.6	7.0	9.3	6.4	2.4
31	Electrical machinery	5.6	6.4	7.4	8.3	9.3	7.9	7.8	8.3	9.0	11.9	12.1	8.6
32	Radio, TV and communication equipment	3.7	4.7	7.2	6.3	9.3	13.6	15.4	18.3	24.7	21.7	22.8	27.8
33	Medical, precision and optical instruments	1.6	1.7	1.4	1.3	1.1	0.9	0.9	0.8	0.7	0.7	0.7	0.7
34	Motor vehicles	3.6	4.1	4.6	4.2	14.0	15.1	20.0	21.2	18.8	18.7	19.6	20.9
35	Other transport equipment	0.5	0.8	0.7	0.6	0.6	0.5	0.5	0.3	0.4	0.4	0.4	0.5
36	Furniture	1.0	1.4	1.2	1.0	0.8	0.7	0.7	0.8	0.7	0.7	0.9	0.9
37	Recycling	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
	TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 22: Herfindahl indices of within sector export volume distribution

NACE	*industry*	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
15	Food products and beverages	0.01	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
16	Tobacco products	0.52	0.54	0.58	0.54	0.50	0.67	0.77	0.80	0.65	0.31	0.28	0.38
17	Textiles	0.03	0.03	0.03	0.03	0.05	0.04	0.05	0.07	0.03	0.06	0.02	0.02
18	Wearing apparel	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.03	0.04	0.07	0.09	0.13
19	Tanning and dressing of leather	0.05	0.04	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.03	0.04	0.05
20	Wood	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.05	0.05	0.07	0.09
21	Pulp, paper	0.30	0.15	0.17	0.15	0.16	0.14	0.17	0.20	0.20	0.22	0.19	0.19
22	Publishing, printing	0.08	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.03	0.04
23	Coke, refined petroleum	1.00	0.98	0.93	0.90	0.91	0.90	0.95	0.99	0.92	0.95	0.96	0.94
24	Chemicals, and chemical products	0.08	0.11	0.10	0.10	0.09	0.09	0.09	0.08	0.09	0.09	0.10	0.10
25	Rubber and plastic products	0.35	0.03	0.04	0.04	0.04	0.05	0.05	0.04	0.04	0.03	0.04	0.04
26	Other non-metallic mineral products	0.12	0.09	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.05	0.05	0.04
27	Basic metals	0.17	0.17	0.16	0.14	0.18	0.21	0.19	0.20	0.28	0.23	0.23	0.26
28	Fabricated metal products	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01
29	Machinery	0.06	0.04	0.04	0.04	0.04	0.05	0.04	0.05	0.06	0.06	0.06	0.05
30	Office machinery and computers	0.41	0.31	0.37	0.15	0.45	0.54	0.41	0.37	0.54	0.62	0.61	0.57
31	Electrical machinery	0.21	0.31	0.22	0.17	0.10	0.09	0.08	0.07	0.08	0.15	0.15	0.08
32	Radio, television and comm. equip.	0.21	0.19	0.14	0.12	0.13	0.17	0.15	0.13	0.11	0.15	0.26	0.17
33	Medical, precision and optical instruments	0.11	0.12	0.07	0.06	0.05	0.05	0.04	0.05	0.05	0.05	0.04	0.05
34	Motor vehicles	0.28	0.29	0.15	0.09	0.20	0.17	0.30	0.36	0.34	0.35	0.35	0.31
35	Other transport equipment	0.16	0.22	0.28	0.17	0.18	0.17	0.21	0.21	0.22	0.20	0.19	0.19
36	Furniture	0.03	0.02	0.02	0.03	0.02	0.03	0.03	0.03	0.03	0.04	0.04	0.04
37	Recycling	0.35	0.37	0.36	0.44	0.32	0.24	0.20	0.16	0.20	0.19	0.14	0.17

Table 23: Herfindahl indices of within sector import volume distribution

NACE	*industry*	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
15	Food products and beverages	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03
16	Tobacco products	0.36	0.30	0.38	0.38	0.39	0.44	0.48	0.44	0.36	0.31	0.32	0.42
17	Textiles	0.04	0.03	0.03	0.05	0.06	0.06	0.05	0.08	0.04	0.07	0.02	0.02
18	Wearing apparel	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.03	0.04	0.08	0.09	0.14
19	Tanning and dressing of leather	0.04	0.04	0.03	0.04	0.04	0.04	0.03	0.04	0.04	0.04	0.05	0.05
20	Wood	0.16	0.09	0.08	0.09	0.08	0.10	0.11	0.09	0.11	0.12	0.13	0.13
21	Pulp, paper	0.12	0.10	0.08	0.08	0.08	0.10	0.11	0.11	0.13	0.11	0.12	0.12
22	Publishing, printing	0.03	0.03	0.04	0.04	0.04	0.05	0.05	0.05	0.04	0.05	0.03	0.02
23	Coke, refined petroleum	1.00	0.89	0.77	0.85	0.87	0.90	1.00	1.00	0.91	0.90	0.90	0.91
24	Chemicals, and chemical products	0.05	0.06	0.05	0.05	0.04	0.05	0.05	0.06	0.06	0.05	0.06	0.08
25	Rubber and plastic products	0.10	0.03	0.03	0.03	0.03	0.06	0.05	0.04	0.03	0.02	0.03	0.03
26	Other non-metallic mineral products	0.03	0.03	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
27	Basic metals	0.28	0.28	0.31	0.21	0.31	0.27	0.23	0.25	0.38	0.33	0.32	0.29
28	Fabricated metal products	0.02	0.02	0.02	0.03	0.04	0.02	0.02	0.02	0.02	0.02	0.01	0.01
29	Machinery	0.05	0.06	0.05	0.05	0.05	0.06	0.04	0.05	0.05	0.05	0.06	0.06
30	Office machinery and computers	0.15	0.22	0.35	0.18	0.40	0.42	0.34	0.34	0.49	0.59	0.62	0.51
31	Electrical machinery	0.11	0.09	0.09	0.07	0.05	0.05	0.05	0.04	0.05	0.13	0.10	0.04
32	Radio, television and comm. equip.	0.08	0.07	0.09	0.06	0.11	0.13	0.11	0.10	0.10	0.13	0.21	0.15
33	Medical, precision and optical instruments	0.05	0.06	0.04	0.05	0.04	0.04	0.03	0.05	0.05	0.05	0.03	0.04
34	Motor vehicles	0.13	0.15	0.13	0.08	0.25	0.27	0.38	0.44	0.41	0.37	0.36	0.32
35	Other transport equipment	0.17	0.25	0.18	0.17	0.12	0.15	0.15	0.15	0.16	0.18	0.12	0.14
36	Furniture	0.03	0.04	0.03	0.05	0.03	0.03	0.03	0.03	0.04	0.04	0.03	0.04
37	Recycling	0.30	0.33	0.55	0.38	0.36	0.16	0.14	0.12	0.14	0.61	0.09	0.10

Table 24: Spatial distribution of export volume, share of NUTS-3 level entities, in %

	County	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
1	Budapest	34.6	32.6	28.8	27.4	23.5	20.8	17.0	15.3	18.6	18.4	16.7	17.4
2	Baranya	2.2	1.5	1.5	1.6	1.9	2.3	2.3	1.9	0.9	0.9	0.9	0.9
3	Bács-Kiskun	3.6	4.1	4.5	4.2	3.3	2.6	2.6	2.3	2.3	2.3	2.3	2.3
4	Békés	3.8	3.4	3.2	2.7	2.3	1.8	1.4	1.0	1.0	0.9	0.9	0.8
5	Borsod-Abaűj-Zemplén	4.9	6.5	6.6	7.1	4.9	4.4	3.6	3.2	3.7	3.7	3.6	3.6
6	Csongrád	3.0	2.5	2.7	2.6	2.2	1.8	1.7	1.4	1.4	1.3	1.2	1.2
7	Fejér	9.0	9.4	11.3	12.6	13.0	19.6	19.3	19.6	14.8	16.9	14.6	10.1
8	Győr-Moson-Sopron	5.8	7.7	6.8	6.3	8.1	10.3	15.5	19.4	17.3	16.8	16.6	16.9
9	Hajdű-Bihar	4.1	3.5	3.7	3.2	2.4	2.3	2.2	1.8	1.7	1.8	2.0	2.1
10	Heves	1.8	1.8	1.4	1.5	1.5	1.5	1.5	1.3	1.5	1.6	1.8	1.8
11	Komárom-Esztergom	1.5	1.6	1.8	2.1	3.9	3.7	3.2	2.6	5.5	7.9	8.1	10.4
12	Nógrád	1.4	1.4	1.6	1.4	1.3	1.0	0.9	1.1	1.3	1.0	1.0	1.0
13	Pest	2.6	3.3	3.8	3.8	4.2	4.7	6.1	6.3	9.0	4.3	4.7	7.7
14	Somogy	1.6	1.3	2.0	2.9	2.4	3.0	2.8	2.8	3.2	5.2	10.1	7.8
15	Szabolcs-Szatmár-Bereg	2.9	3.0	3.2	2.6	2.2	1.9	2.0	2.3	2.6	2.7	2.7	2.9
16	Jász-Nagykun-Szolnok	3.5	3.0	3.1	3.2	2.8	2.6	2.1	2.2	2.2	2.2	2.1	2.1
17	Tolna	2.9	2.0	2.0	1.9	1.6	1.2	1.1	1.1	0.9	0.8	0.8	0.6
18	Vas	4.2	4.9	5.2	5.6	12.9	9.9	10.4	10.3	7.7	7.1	5.8	6.0
19	Veszprém	3.2	3.0	3.7	4.3	2.9	2.5	2.2	2.2	2.3	2.2	2.2	2.6
20	Zala	2.1	2.4	2.1	2.0	1.6	1.2	1.1	1.1	1.0	0.9	0.8	0.8

Table 25: Spatial distribution of import volume, share of NUTS-3 level entities, in %

	County	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
1	Budapest	34.6	32.6	28.8	27.4	23.5	20.8	17.0	15.3	18.6	18.4	16.7	17.4
2	Baranya	2.2	1.5	1.5	1.6	1.9	2.3	2.3	1.9	0.9	0.9	0.9	0.9
3	Bács-Kiskun	3.6	4.1	4.5	4.2	3.3	2.6	2.6	2.3	2.3	2.3	2.3	2.3
4	Békés	3.8	3.4	3.2	2.7	2.3	1.8	1.4	1.0	1.0	0.9	0.9	0.8
5	Borsod-Abaűj-Zemplén	4.9	6.5	6.6	7.1	4.9	4.4	3.6	3.2	3.7	3.7	3.6	3.6
6	Csongrád	3.0	2.5	2.7	2.6	2.2	1.8	1.7	1.4	1.4	1.3	1.2	1.2
7	Fejér	9.0	9.4	11.3	12.6	13.0	19.6	19.3	19.6	14.8	16.9	14.6	10.1
8	Győr-Moson-Sopron	5.8	7.7	6.8	6.3	8.1	10.3	15.5	19.4	17.3	16.8	16.6	16.9
9	Hajdű-Bihar	4.1	3.5	3.7	3.2	2.4	2.3	2.2	1.8	1.7	1.8	2.0	2.1
10	Heves	1.8	1.8	1.4	1.5	1.5	1.5	1.5	1.3	1.5	1.6	1.8	1.8
11	Komárom-Esztergom	1.5	1.6	1.8	2.1	3.9	3.7	3.2	2.6	5.5	7.9	8.1	10.4
12	Nógrád	1.4	1.4	1.6	1.4	1.3	1.0	0.9	1.1	1.3	1.0	1.0	1.0
13	Pest	2.6	3.3	3.8	3.8	4.2	4.7	6.1	6.3	9.0	4.3	4.7	7.7
14	Somogy	1.6	1.3	2.0	2.9	2.4	3.0	2.8	2.8	3.2	5.2	10.1	7.8
15	Szabolcs-Szatmár-Bereg	2.9	3.0	3.2	2.6	2.2	1.9	2.0	2.3	2.6	2.7	2.7	2.9
16	Jász-Nagykun-Szolnok	3.5	3.0	3.1	3.2	2.8	2.6	2.1	2.2	2.2	2.2	2.1	2.1
17	Tolna	2.9	2.0	2.0	1.9	1.6	1.2	1.1	1.1	0.9	0.8	0.8	0.6
18	Vas	4.2	4.9	5.2	5.6	12.9	9.9	10.4	10.3	7.7	7.1	5.8	6.0
19	Veszprém	3.2	3.0	3.7	4.3	2.9	2.5	2.2	2.2	2.3	2.2	2.2	2.6
20	Zala	2.1	2.4	2.1	2.0	1.6	1.2	1.1	1.1	1.0	0.9	0.8	0.8

Table 26
Average number of export markets served and imports served by

Year	Average number of export markets served	Average Number of import market served by
1992	3.38	3.12
1993	3.36	3.27
1994	3.41	3.41
1995	3.45	3.63
1996	3.54	3.87
1997	3.58	4.34
1998	3.61	4.66
1999	3.65	4.85
2000	3.76	4.98
2001	3.79	5.04
2002	3.83	5.08
2003	3.98	5.25

unweighted average

Table 27
Top 15 Export partners by volume of trade in 1992, 1999 and 2003

year	country	exports (Bn. HUF)	ship-ments	firms	products	share %
1992						
	Germany	154.3	10983	1974	2217	30.8
	Austria	55.4	5015	1326	1734	11.0
	Italy	44.4	2235	711	1028	8.8
	United States of America	19.7	1118	359	633	3.9
	France	19.3	1672	453	772	3.9
	Soviet Union	19.1	905	282	548	3.8
	Russian Federation	14.3	894	254	469	2.9
	United Kingdom	12.8	960	373	624	2.5
	Belgium and Luxembourg	11.6	810	291	516	2.3
	Czechoslovakia	11.5	2243	716	1111	2.3
	Netherlands	10.6	1277	431	713	2.1
	Switzerland	9.1	1374	470	747	1.8
	Turkey	8.9	243	106	200	1.8
	Spain	7.2	328	159	252	1.4
	Poland	6.7	729	297	469	1.3
1999						
	Germany	2157.7	25032	2942	2792	40.4
	Austria	480.6	10567	1917	2160	9.0
	United States of America	301.6	2126	577	977	5.6
	Italy	290.7	5783	1122	1662	5.4
	Netherlands	289.0	2696	694	1131	5.4
	United Kingdom	254.6	2720	631	1109	4.8
	France	250.3	4141	780	1275	4.7
	Belgium and Luxembourg	170.0	2143	493	977	3.2
	Poland	101.7	2631	720	1136	1.9
	Spain	88.6	955	343	536	1.7
	Romania	77.4	7532	1320	2116	1.4
	Czech Republic	75.3	2681	775	1163	1.4
	Russian Federation	66.1	1815	400	762	1.2
	Switzerland	61.4	2620	714	1081	1.2
	Ireland	58.7	294	122	218	1.1
2003						
	Germany	2972.2	27227	3291	2815	35.9
	Austria	567.5	11790	2080	2241	6.9
	France	493.6	5409	981	1427	6.0
	Italy	467.8	6614	1262	1772	5.6
	United Kingdom	396.6	4146	835	1289	4.8
	Netherlands	328.0	3510	840	1278	4.0
	Sweden	295.9	1981	557	853	3.6
	United States of America	274.7	3351	714	1197	3.3
	Spain	249.1	1729	467	789	3.0
	Belgium and Luxembourg	202.4	2644	612	1044	2.4
	Poland	188.0	2972	799	1250	2.3
	Czech Republic	165.3	3894	1038	1409	2.0
	Slovakia	161.8	5639	1409	1790	2.0
	Romania	161.4	11065	1657	2448	1.9
	Russian Federation	118.6	1976	416	870	1.4

Table 28
Top 15 Import partners by volume of trade in 1992, 1999 and 2003

year	country	imports (Bn. HUF)	ship-ments	firms	products	share %
1992						
	Germany	93.8	45233	2759	3501	28.4
	Austria	47.4	25086	2092	2967	14.3
	Russian Federation	25.7	265	115	193	7.8
	Italy	24.3	9703	1287	2005	7.4
	Soviet Union	14.7	478	173	334	4.5
	Czechoslovakia	12.0	2452	780	1075	3.6
	France	10.8	5211	718	1595	3.3
	Netherlands	9.8	3818	590	1463	3.0
	Switzerland	9.3	5598	723	1663	2.8
	Belgium and Luxembourg	8.8	2577	407	1139	2.7
	United States of America	8.6	3191	545	1230	2.6
	United Kingdom	8.5	3377	677	1329	2.6
	Poland	6.3	396	179	278	1.9
	Sweden	4.8	2449	415	1014	1.4
	Ukraine	4.4	256	120	189	1.3
1999						
	Germany	1500.7	103134	4189	3822	34.4
	Austria	461.4	31590	2521	2872	10.6
	Italy	303.2	33467	2729	2932	7.0
	Russian Federation	249.9	746	257	467	5.7
	Japan	193.8	9086	1085	1514	4.4
	France	167.1	15408	1655	2491	3.8
	United States of America	127.8	16164	1638	2171	2.9
	Belgium and Luxembourg	105.3	7201	1022	1800	2.4
	United Kingdom	102.0	11871	1559	2083	2.3
	Netherlands	95.5	9343	1281	2036	2.2
	China	91.0	3769	773	1143	2.1
	Singapore	89.1	1120	205	352	2.0
	Taiwan	61.1	3214	697	826	1.4
	Switzerland	56.9	9785	1413	1827	1.3
	Korea	55.1	1529	417	603	1.3
2003						
	Germany	1846.1	105438	4945	3849	28.8
	China	485.2	8483	1345	1650	7.6
	Austria	422.2	30345	2749	2812	6.6
	Italy	405.9	36719	3247	3070	6.3
	Russian Federation	358.0	675	274	397	5.6
	Japan	339.0	11268	1242	1544	5.3
	France	265.0	16928	1962	2528	4.1
	United States of America	203.8	17534	1787	2106	3.2
	Korea	178.8	2603	568	889	2.8
	Poland	151.0	3959	1113	1303	2.4
	United Kingdom	135.9	12752	1706	2094	2.1
	Czech Republic	118.1	6198	1519	1626	1.8
	Malaysia	114.2	1790	351	424	1.8
	Taiwan	112.3	4891	968	951	1.8
	Netherlands	106.4	10115	1508	2036	1.7

Table 29
Top 15 Export partners by number of trading firms in 1992, 1999 and 2003

year	country	exports (Bn. HUF)	ship-ments	firms	products	share %
1992						
	Germany	154.3	10983	1974	2217	30.8
	Austria	55.4	5015	1326	1734	11.0
	Czechoslovakia	11.5	2243	716	1111	2.3
	Italy	44.4	2235	711	1028	8.8
	Switzerland	9.1	1374	470	747	1.8
	France	19.3	1672	453	772	3.9
	Romania	6.4	1915	438	916	1.3
	Netherlands	10.6	1277	431	713	2.1
	Sweden	6.3	1008	386	582	1.3
	United Kingdom	12.8	960	373	624	2.5
	United States of America	19.7	1118	359	633	3.9
	Poland	6.7	729	297	469	1.3
	Belgium and Luxembourg	11.6	810	291	516	2.3
	Soviet Union	19.1	905	282	548	3.8
	Russian Federation	14.3	894	254	469	2.9
1999						
	Germany	2157.7	25032	2942	2792	40.4
	Austria	480.6	10567	1917	2160	9.0
	Romania	77.4	7532	1320	2116	1.4
	Italy	290.7	5783	1122	1662	5.4
	Slovakia	49.8	3552	1026	1413	0.9
	France	250.3	4141	780	1275	4.7
	Czech Republic	75.3	2681	775	1163	1.4
	Poland	101.7	2631	720	1136	1.9
	Switzerland	61.4	2620	714	1081	1.2
	Netherlands	289.0	2696	694	1131	5.4
	United Kingdom	254.6	2720	631	1109	4.8
	United States of America	301.6	2126	577	977	5.6
	Slovenia	39.8	1588	525	853	0.7
	Belgium and Luxembourg	170.0	2143	493	977	3.2
	Croatia	22.0	1755	493	959	0.4
2003						
	Germany	2972.2	27227	3291	2815	35.9
	Austria	567.5	11790	2080	2241	6.9
	Romania	161.4	11065	1657	2448	1.9
	Slovakia	161.8	5639	1409	1790	2.0
	Italy	467.8	6614	1262	1772	5.6
	Czech Republic	165.3	3894	1038	1409	2.0
	France	493.6	5409	981	1427	6.0
	Switzerland	101.2	3646	864	1306	1.2
	Netherlands	328.0	3510	840	1278	4.0
	United Kingdom	396.6	4146	835	1289	4.8
	Poland	188.0	2972	799	1250	2.3
	Serbia and Montenegro	45.3	3452	746	1543	0.5
	United States of America	274.7	3351	714	1197	3.3
	Croatia	63.6	2923	703	1315	0.8
	Belgium and Luxembourg	202.4	2644	612	1044	2.4

Table 30
Top 15 Import partners by number of trading firms in 1992, 1999 and 2003

year	country	imports (Bn. HUF)	ship-ments	firms	products	share %
1992						
	Germany	93.8	45233	2759	3501	28.4
	Austria	47.4	25086	2092	2967	14.3
	Russian Federation	25.7	265	115	193	7.8
	Italy	24.3	9703	1287	2005	7.4
	Soviet Union	14.7	478	173	334	4.5
	Czechoslovakia	12.0	2452	780	1075	3.6
	France	10.8	5211	718	1595	3.3
	Netherlands	9.8	3818	590	1463	3.0
	Switzerland	9.3	5598	723	1663	2.8
	Belgium and Luxembourg	8.8	2577	407	1139	2.7
	United States of America	8.6	3191	545	1230	2.6
	United Kingdom	8.5	3377	677	1329	2.6
	Poland	6.3	396	179	278	1.9
	Sweden	4.8	2449	415	1014	1.4
	Ukraine	4.4	256	120	189	1.3
1999						
	Germany	1500.7	103134	4189	3822	34.4
	Italy	303.2	33467	2729	2932	7.0
	Austria	461.4	31590	2521	2872	10.6
	France	167.1	15408	1655	2491	3.8
	United States of America	127.8	16164	1638	2171	2.9
	United Kingdom	102.0	11871	1559	2083	2.3
	Switzerland	56.9	9785	1413	1827	1.3
	Netherlands	95.5	9343	1281	2036	2.2
	Czech Republic	48.4	4136	1225	1393	1.1
	Japan	193.8	9086	1085	1514	4.4
	Belgium and Luxembourg	105.3	7201	1022	1800	2.4
	Slovakia	52.8	2557	928	1005	1.2
	Spain	51.7	3719	854	1310	1.2
	China	91.0	3769	773	1143	2.1
	Poland	45.6	2210	754	985	1.0
2003						
	Germany	1846.1	105438	4945	3849	28.8
	Italy	405.9	36719	3247	3070	6.3
	Austria	422.2	30345	2749	2812	6.6
	France	265.0	16928	1962	2528	4.1
	United States of America	203.8	17534	1787	2106	3.2
	United Kingdom	135.9	12752	1706	2094	2.1
	Switzerland	77.7	10966	1591	1796	1.2
	Czech Republic	118.1	6198	1519	1626	1.8
	Netherlands	106.4	10115	1508	2036	1.7
	China	485.2	8483	1345	1650	7.6
	Japan	339.0	11268	1242	1544	5.3
	Belgium and Luxembourg	82.8	7283	1225	1725	1.3
	Slovakia	99.6	3540	1198	1169	1.6
	Spain	88.7	5225	1154	1557	1.4
	Poland	151.0	3959	1113	1303	2.4

Table 31
Top 15 Export partners by volume with pre-transition geopolitical entities 1992, 1999 and 2003

year	country	exports (Bn. HUF)	ship-ments	firms	products	share %
1992						
	Germany	154.3	10983	1974	2217	30.8
	Austria	55.4	5015	1326	1734	11.0
	Italy	44.4	2235	711	1028	8.8
	"Soviet Union"	41.8	3213	520	1089	8.3
	United States of America	19.7	1118	359	633	3.9
	France	19.3	1672	453	772	3.9
	"Yugoslavia"	14.2	1479	388	699	2.8
	United Kingdom	12.8	960	373	624	2.5
	Belgium and Luxembourg	11.6	810	291	516	2.3
	"Czechoslovakia"	11.5	2243	716	1111	2.3
	Netherlands	10.6	1277	431	713	2.1
	Switzerland	9.1	1374	470	747	1.8
	Turkey	8.9	243	106	200	1.8
	Spain	7.2	328	159	252	1.4
	Poland	6.7	729	297	469	1.3
1999						
	Germany	2157.7	25032	2942	2792	40.4
	Austria	480.6	10567	1917	2160	9.0
	United States of America	301.6	2126	577	977	5.6
	Italy	290.7	5783	1122	1662	5.4
	Netherlands	289.0	2696	694	1131	5.4
	United Kingdom	254.6	2720	631	1109	4.8
	France	250.3	4141	780	1275	4.7
	Belgium and Luxembourg	170.0	2143	493	977	3.2
	"Soviet Union"	125.3	6249	766	1452	2.3
	"Czechoslovakia"	125.1	6233	1361	1762	2.3
	"Yugoslavia"	104.3	6594	1076	1842	2.0
	Poland	101.7	2631	720	1136	1.9
	Spain	88.6	955	343	536	1.7
	Romania	77.4	7532	1320	2116	1.4
	Switzerland	61.4	2620	714	1081	1.2
2003						
	Germany	2972.2	27227	3291	2815	35.9
	Austria	567.5	11790	2080	2241	6.9
	France	493.6	5409	981	1427	6.0
	Italy	467.8	6614	1262	1772	5.6
	United Kingdom	396.6	4146	835	1289	4.8
	Netherlands	328.0	3510	840	1278	4.0
	"Czechoslovakia"	327.1	9533	1863	2110	3.9
	Sweden	295.9	1981	557	853	3.6
	United States of America	274.7	3351	714	1197	3.3
	Spain	249.1	1729	467	789	3.0
	"Soviet Union"	222.7	7442	850	1666	2.7
	"Yugoslavia"	216.1	10125	1418	2252	2.6
	Belgium and Luxembourg	202.4	2644	612	1044	2.4
	Poland	188.0	2972	799	1250	2.3
	Romania	161.4	11065	1657	2448	1.9

Table 32
Top 15 Import partners by volume with pre-transition geopolitical entities 1992, 1999 and 2003

year	country	imports (Bn. HUF)	shipments	firms	products	share %
1992						
	Germany	93.8	45233	2759	3501	28.4
	Austria	47.4	25086	2092	2967	14.3
	"Soviet Union"	45.7	1077	288	535	13.8
	Italy	24.3	9703	1287	2005	7.4
	"Czechoslovakia"	12.0	2452	780	1075	3.6
	France	10.8	5211	718	1595	3.3
	Netherlands	9.8	3818	590	1463	3.0
	Switzerland	9.3	5598	723	1663	2.8
	Belgium and Luxembourg	8.8	2577	407	1139	2.7
	United States of America	8.6	3191	545	1230	2.6
	United Kingdom	8.5	3377	677	1329	2.6
	Poland	6.3	396	179	278	1.9
	"Yugoslavia"	5.2	713	263	422	1.6
	Sweden	4.8	2449	415	1014	1.4
	Finland	4.2	776	240	415	1.3
1999						
	Germany	1500.7	103134	4189	3822	34.4
	Austria	461.4	31590	2521	2872	10.6
	Italy	303.2	33467	2729	2932	7.0
	"Soviet Union"	291.5	1617	529	760	6.7
	Japan	193.8	9086	1085	1514	4.4
	France	167.1	15408	1655	2491	3.8
	United States of America	127.8	16164	1638	2171	2.9
	Belgium and Luxembourg	105.3	7201	1022	1800	2.4
	United Kingdom	102.0	11871	1559	2083	2.3
	"Czechoslovakia"	101.3	6693	1729	1756	2.3
	Netherlands	95.5	9343	1281	2036	2.2
	China	91.0	3769	773	1143	2.1
	Singapore	89.1	1120	205	352	2.0
	Taiwan	61.1	3214	697	826	1.4
	Switzerland	56.9	9785	1413	1827	1.3
2003						
	Germany	1846.1	105438	4945	3849	28.8
	"Soviet Union"	503.0	2013	659	821	7.8
	China	485.2	8483	1345	1650	7.6
	Austria	422.2	30345	2749	2812	6.6
	Italy	405.9	36719	3247	3070	6.3
	Japan	339.0	11268	1242	1544	5.3
	France	265.0	16928	1962	2528	4.1
	"Czechoslovakia"	217.7	9738	2145	2000	3.4
	United States of America	203.8	17534	1787	2106	3.2
	Korea	178.8	2603	568	889	2.8
	Poland	151.0	3959	1113	1303	2.4
	United Kingdom	135.9	12752	1706	2094	2.1
	Malaysia	114.2	1790	351	424	1.8
	Taiwan	112.3	4891	968	951	1.8
	Netherlands	106.4	10115	1508	2036	1.7

Table 33
Description of the Wholesale and Resale sectors

NACE	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
50	Sale, maintenance and repair of motor vehicles; retail sale of automotive fuel											
51	Wholesale trade and commission trade											
52	Retail trade, repair of personal and household goods											
Number of firms												
50	2036	2620	3296	3934	4393	5007	5337	5323	3233	3271	3587	3700
51	10927	13362	15774	17678	19150	21013	21854	21572	13025	12972	13434	13230
52	6197	7495	8803	10405	11769	13431	14627	14976	7236	7457	7592	7492
Share of exporters (%)												
50	16.1	13.4	11.1	12.3	11.1	10.5	10.7	9.5	15.6	18.4	16.5	17.5
51	27.3	24.4	23.2	22.6	20.2	19.4	19.8	19.2	33.6	39.8	37.8	38.1
52	11.2	9.3	8.6	8.2	7.3	6.5	6.8	6.3	14.0	16.4	15.1	14.0
Share of total export volume (%)												
50	1.4	1.7	1.6	1.4	0.5	0.3	0.3	0.3	0.3	0.3	0.2	0.2
51	15.2	13.7	11.7	12.6	8.2	7.7	6.6	5.5	5.6	5.5	5.1	4.8
52	1.1	2.2	1.2	0.6	0.5	0.3	0.3	0.3	0.4	0.4	0.4	0.4
Average number of Destinations												
50	1.7	1.8	2.2	2.3	2.3	2.2	2.3	2.2	2.2	2.3	2.3	2.3
51	2.4	2.4	2.3	2.3	2.4	2.4	2.4	2.5	2.5	2.5	2.6	2.6
52	2.0	2.0	1.9	1.8	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.9
Average number of product categories exported												
50	6.8	7.4	10.2	9.5	11.2	13.1	15.1	15.7	16.2	15.3	17.3	14.0
51	6.1	5.9	6.1	5.9	6.1	6.1	6.6	6.8	7.0	7.3	7.4	7.2
52	5.3	4.6	5.0	4.8	6.0	6.4	6.5	6.4	6.8	6.7	8.2	7.8
Share of importers (%)												
50	45.0	41.4	37.4	30.2	24.2	21.4	20.6	20.4	36.3	44.3	45.7	47.6
51	46.3	44.3	41.7	37.9	35.1	33.3	33.9	34.1	58.0	61.3	62.9	66.0
52	28.8	25.3	23.0	19.4	16.9	15.9	15.6	15.6	32.6	34.5	35.7	37.3
Share of total import volume (%)												
50	5.4	7.4	7.0	5.6	4.5	5.0	5.3	5.4	4.9	5.3	6.2	6.5
51	27.6	30.5	29.8	25.8	23.9	22.8	21.3	19.4	18.9	19.3	20.4	21.3
52	4.3	4.4	4.0	3.3	2.5	2.5	2.6	2.4	2.2	2.2	2.4	2.3
Average number of origins												
50	3.0	2.8	3.0	3.3	3.6	4.5	4.7	4.7	5.0	5.0	5.0	5.2
51	3.1	3.2	3.2	3.4	3.7	4.1	4.4	4.6	4.7	4.8	4.9	5.0
52	2.5	2.7	2.7	3.1	3.3	3.7	4.0	4.2	4.5	4.5	4.5	4.5
Average number of product categories imported												
50	24.7	23.7	26.4	25.7	27.1	31.2	32.4	31.6	31.6	26.9	25.3	26.1
51	14.7	14.2	14.6	14.4	15.5	16.7	18.1	19.3	19.3	19.5	20.1	20.1
52	12.8	13.3	13.2	13.1	14.4	15.6	17.0	17.9	18.7	18.4	19.1	19.2