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Abstract

The paper is going to use the WIOD to analyse the structure, extent and evolution of production processes outsourcing in Italy and Germany from 1995 to 2011 by means of global vertically integrated sectors, in order to single out and compare the different sources of gains/losses in competitiveness.

Secondly, global vertically integrated sectors are going to be employed to get a measure of labour productivity changes in the two countries. By comparing the trends of these two sets of indicators, it is possible to shed light on the evolution of international competitiveness in the two countries, to assess the extent to which competitiveness gains/losses are associated to actual productivity increases/decreases and to what extent they are simply due to a different geographical allocation of production stages.

1. Introduction

Multi-sectoral structures emerge as the natural analytical setting to analyse the connection between activity levels, trade patterns and income and production interdependencies between (European) economies. Several insights from Regional Input-Output Analysis (Leontief, 1953; Leontief and Strout, 1963) can be re-oriented towards the study of inter-national inter-industry networks of commodity and money flows. In this respect, early explicit attempts at exploiting multi-regional Input-Output models in order to study European integration and interdependence (Rampa, 1986; Rampa and Lanza, 1988; Rampa and Bertoletti, 1990) can be brought to the fore thanks to the availability of new datasets — such as the World Input-Output Database – WIOD (Timmer, 2012) — and new computing techniques.

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In fact, such earlier attempts have been embedded, to a certain extent, in the literature on vertical specialisation of production — (triggered by Hummels and Yi, 2001) and international transmission of business cycles (see for example Ayhan Kose and Yi, 2001; Johnson, 2012). Indeed, the interaction of these two areas for the study of some of the effects of the 'Global Recession' has been recently addressed by Bems, Johnson and Yi (Bems, Johnson, and Yi, 2010, 2011).

Moreover, the consequences of the crisis upon income, wages and employment rendered apparent the connections between trade and value added components of national economies. Exploring this issue recently gave rise to a growing strand of literature on trade in value added and global value chains (Johnson and Noguera, 2012; Wang et al., 2009; Koopman et al., 2010).

Different decomposition techniques have been adopted to uncover the contribution of factors and regions to aggregate indicators of vertical specialisation (Meng and Inomata, 2009; Meng et al., 2011), exploiting the analytical advantages of an international Input-Output framework.

In particular, a set of well-established indicators of off-shoring and internationalisation of manufacturing[1] can be computed using multi-regional data such as the WIOD database and used to compare different contries/regions and study the evolution through time of their exploitation of international division of labour. More specifically, three sets of indicators have been traditionally computed:

1. The ratio of imported to total inputs (Feenstra and G.H., 1996, 1999):

$$ITT = \mathbf{e}^T \mathbf{A}_m \mathbf{y} [\mathbf{e}^T (\mathbf{A}_m + \mathbf{A}_d) \mathbf{y}]^{-1}$$

2. The import content of domestic production (see Egger and Egger, 2003):

$$ICP = \mathbf{e}^T \mathbf{A}_m \mathbf{y} (\mathbf{e}^T \mathbf{y})^{-1}$$

3. The *import content of exports* (Hummels and Yi, 2001; Dietzenbacher, 2010):

$$ICE = \mathbf{e}^T \mathbf{A}_m (\mathbf{I} - \mathbf{A}_d)^{-1} \mathbf{x} (\mathbf{e}^T \mathbf{x})^{-1}$$

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[1]See e.g. Breda and Cappariello (2012) for a review.

2. International trade and outsourcing

Italy and Germany are often compared as to their external trade performance, in order to single out their structural differences and the corresponding determinants. It is often argued that Germany's better performance is due to a higher competitiveness, in turn triggered by a better productivity dynamics. Before going into the details of these issues, a few words are worth being spent on the structure of Italy's and Germany's exports and imports during the period 1995-2011, which is shown in Table A.2.[2]

As can be seen, the industries that export the most both in Italy and in Germany are those in the hi-tech group, representing in 2011 the 32.5% of exports in the case of Italy, and the 37.0% in the case of Germany. It is interesting to note that while in Italy such proportion has been sightly increasing from 1995 to 2011, in Germany it has been sharply decreasing, with an overall loss of almost 4 p.p. While the differences between the two countries are small in the medium-tech sector, they become relevant in low-tech and vehicles, the former being the second exporting group for Italy and the latter for Germany. This difference is showing that while Germany specialised in the production and delivery of cars, Italy specialised in the textile and food processing sectors.

Table A.2 also shows that the highest proportion of imports consists, both in Italy and Germany, of the products of hi-tech industries — in 2011, the 24.9% of the total in Italy and the 32.2% in Germany. Such proportion has decreased in Italy since 1995, while has increased in Germany. The greatest difference between the two countries is given by energetic imports, which represent the 19% of Italian imports and only the 7% of Germany's.

The composition of international trade for the two countries is inspected in some more detail in Tables A.3 and A.4.[3]

Table A.3 shows that in 2008 the 32.5% of Italian hitech exports were directed towards fixed capital formation, the proportion being 27.2% in Germany. On the other side, only the 19.6% of Italian hi-tech exports consisted in intermediates for other countries hi-tech industries, versus the 24.0% in Germany. In both cases, the proportion of exports to fixed capital formation decreased from 1995 to 2008, while that of exports to other countries' hi-tech industries increased.

Turning to imports, Table A.4 shows that in 2008 the 27.8% of German hi-tech imports consisted of intermediates for the hi-tech industries and the 23%

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[2]The classification is shown in Table A.1.

[3]In what follows, we will concentrate on the years from 1995 to 2008, for which both current and constant prices data are available.

of fixed capital formation; in Italy the situation was the opposite, with 22.2% of hi-tech imports consisting of intermediates for the hi-tech sectors and the 27.3% of fixed capital. Moreover, the most apparent difference in the imports structure of Italy and Germany concerns the energetic sector: while the 77.4% of Italy's imports consist of intermediates for the production of energy itself, and only the 6.4% goes to final consumption, in Germany the corresponding proportions are 37.9% and 25.1%.

We can now concentrate on the evolution through time of productivity, competitiveness and outsourcing processes, in order to assess how the different performances of the two countries affected their trade pattern.

2.1. Standard indicators of off-shoring

Before going into the analysis of labour productivity changes, it is worth discussing the results of computing the three standard indicators of off-shoring mentioned in the Introduction. Such indicators have been computed at the activity rather than economy-wide level; results are shown in Tables A.5-A.7.

ITT gives the ratio of imported to total direct requirements for gross output. It can be seen from Table A.5 that Italy's and Germany's ITT show a very different structure and dynamics: for Italy, the average level went from 21.4% in 1995 to 25% in 2008; in Germany, from 33.3% to 49.2%, with a constantly increasing trend.

While in 1995 Italy the index was below 25% for all activities with the exception of *Chemicals* (44.6%), *Optical Equipm.* (35.9%) and *Transport Equipm.* (27.8%), in Germany the ratio of imported inputs to total were much higher for almost all activities. As to the dynamics of ITT, in Italy six activities showed a decrease[4] and seven an increase[5] over the whole period. The most relevant increase took place in the *Transport Equipm.* sectors, where the ratio of imported to total inputs increased by 25 p.p.

The ICP measures the direct imports requirements for the production of gross output normalised by the value of the latter at current prices. Also in this case, Germany shows a higher dependence on imports than Italy. On average, ICP went from 12.7% to 15.1% (+2.5 p.p.) in the latter, and from 15% to 22.6% (+7.6 p.p.) in the former. Also in this case, the outlier for Italy is the *Transport Equipm.* sector, where the ratio of imports to total production raised by more than 14 p.p. over the whole period considered.

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[4]All *lowtech* manufactures but *Wood* and *Optical Equipm.*.

[5]*Wood*, all *medtech* manufactures, *hitech* manufactures but *Optical Equipm.*, and *Transport Equipm.*.

Finally, ICE provides a measure of total imports embodied in total exports. This is the only measure involving some circularity, since exports are an item of final demand — while ITT and ICP are computed with reference to gross output.

In this case, the difference between Italy and Germany is much less relevant. Moreover, the ICE index was slightly greater in the case of Italy in the first periods, whith Germany's growing higher 1998 onwards. The overall average change, from 1995 to 2008, of ICE for Italy and Germany was equal to 0.7 and 5.5 p.p. respectively.

2.2. Change in labour productivity

The most obvious question to ask concerns the evolution of labour productivity in the two countries. The issue can be looked at from different perspectives, since the complexity of production structures, within — but most of all across — national borders, considerably increased over the period under analysis.

To begin with, Table A.8 shows the evolution through time of (national) vertically integrated labour productivity in both Italy and Germany for all manufacturing sectors. Even without considering 2008 — when the crisis made productivity to decrease due to the sharp decline in output — the difference between Italian and German productivity performance is apparent: with exception of two *lowtech* sectors (*Wood* and *Food*), German productivity increased much more, on average, over the whole period. In particular, Italian productivity growth started to decline from 2001 onwards, while German's performance has been constant and positive over almost the whole period.

However, looking at the evolution of labour productivity only can be misleading in evaluating a country's performance; in order to have a complete picture, it is important to observe the evolution of employment too. In fact, *productivity increases* can be coupled with either increasing or decreasing employment levels; in the second case, productivity increases might cover phenomena of labour expulsion, which can in turn be due to the fact that the sector under analysis is a declining one, or that processes with above-average labour-intensity are being outsourced. In the same way, *productivity reductions* can be accompanied by either increasing or decreasing employment. While in the second case we clearly are in front of a lagging sector, in the former we might observe the outcome of an expanding activity which might lead to following productivity increases.[6]

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[6]It must be observed that productivity levels are affected by changes in the levels of output. For this reason, when analysing the patterns of productivity changes, it is always necessary to consider time series which are large enough toproperly take this phenomenon into account.

For each country, Table A.9 reports the number of periods in which all manufacturing sectors displayed each of the four possible combinations of productivity/employment dynamics.

Productivity *and* employment growth was a more frequent pattern in Italy than in Germany, for all manufacturing sectors with the exception of *Trasport Equipm.*. In particular, the sectors *Basic, Fabr. Metal* (9 vs 7 periods), *Machinery nec* (8 vs 7 periods), and *Optical Equipm.* (7 vs 4 periods) have been particularly dynamic in Italy. In Germany all sectors — but *Basic, Fabr. Metal*, *Machinery nec* and *Trasport Equipm.* — show as the most common pattern the pair increasing productivity/decreasing employment.

These results seem to suggest that German productivity has been increasing more than in Italy not due to technological change, but rather to a modification of the international division of labour. This conclusion can be confirmed by inspection of Table A.10, showing the dynamics of *international* vertically integrated labour productivity. It is immediately apparent that the differences between Italy and Germany are much smaller than in the previous case. More specifically, while the performance of Italy does not display major modifications with respect to the national picture, Germany's productivity performance results as being much more moderate when the whole international production processes are taken into account. This suggests that: (i) the phenomenon of international fragmentation of production smoothed inter-country differences in the technological progress of theur international production processes; (ii) German production chains are much more oriented towards outsourcing of low-value added, labour-intensive processes.

A further piece of evidence in this direction is provided by Table A.11, showing the ratio of own to total international vertically integrated labour for manufacturing.

It is immediately apparent that the *own* component of German labour coefficients is much lower than the Italian,[7] and that in both countries it has been decreasing from 1995 to 2008.

In the *Chemicals* sector, the proportion of German to total labour passed from 54.2% in 1995 to 41.6% in 2008 — a loss of 12.6 p.p.; in Italy, it went from 56.1% to 49.5% —- a 6.6 p.p. decrease. The difference is however more apparent when considering the remaining sectors. In *Machinery*, the proportion of own to total labour went from 60.0% to 45.5% (-14.5 p.p.) in Germany and

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[7]By *own* component we refer to that proportion of internationally VI labour which is done into the country. The rest of the coefficient, i.e. foreign labour, is decomposed according to the industries where such labour is employed abroad.

from 67.4% to 59.8% (-7.6 p.p.) in Italy; in *Optical Equipment* from 58.6% to 38.9% (-19.7 p.p.) in Germany and from 66.0% to 59.1% (-6.9 p.p.) in Italy. Finally, in *Transport Equipment* from 50.7% to 36.4% (-14.3 p.p.) in Germany and from 65.4% to 51.9% (-13.5 p.p.) in Italy.[8]

In general, in 2008 the proportion of own to total labour in Italy was 7.9 p.p. higher than in Germany in the *Chemicals* sector, 14.3 p.p. in the *Machinery* sector, 20.2 p.p. in the *Optical Equipment* sector, and 15.5 p.p. in the *Transport Equipment* sector.

Finally, we can turn to the analysis of the disaggregation of the foreign component of international VI labour according to the industry category of origin, as shown in Tables A.12-A.14.

In all *lowtech* manufactures, the greatest proportion of 'imported' vertically integrated labour comes from industries belonging to the *agro*, *tertiary* and *lowtech* groups (with the exception of *Food*, where the latter component is way less important), both in Germany and in Italy.

In the *medtech* industries, dealt with in Table A.13, the participation of *lowtech* indutries is less relevant than in the previous case, with the *medtech* group acquiring greater importance, especially for Germany in the *Non-Metal Mineral nec* sector. In the case of *Rubber and Plastics*, labour import from *hitech* industries is quite relevant in both countries.

Turning to *hitech* and *vehicles*, Table A.14 shows that in all four sectors the most important component of foreign labour is represented by services. While the decomposition of VI labour coefficients for the *Chemicals* and *Transport Equipment* sectors leads to quite similar structures in the two countries, divergences are more apparent in the other two cases.

Both in the *Machinery* and in the *Optical Equipment* sectors, the hi-tech component of foreign labour in Germany is much bigger than in Italy — in 2008 19.45% versus 12.72% in the former, 26.39% versus 17.26% in the latter, and constantly increasing through time in both countries. The difference appears even stronger when taking into account the fact that the proportion of imported to total labour is much higher in Germany than in Italy.

3. Conclusions

While national labour productivity in the period 1995-2008 was actually increasing more in Germany than in Italy, such a huge difference almost disappears

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[8]In the latter sector Italy and Germany followed almost the same path. This result was to be expected by knowing the development strategy followed in recent years by the greatest Italian firm producing cars.

when international production chains, i.e. internationally vertically integrated sectors, are considered. The results suggest that Germany's higher domestic productivity growth is due to a different structure of interntional fragmentation of production more than to a technological difference in the production processes within the borders. This conclusion is further supported by the results concerning the joint dynamics of productivity and employment and the decomposition of VI labour coefficients in the two countries. Germany is actually characterised by a much lower domestic component of interational VI in the hi-tech and Transport Equipment sectors, which has been decreasing much faster than in Italy over the period considered.

Moreover, Italy's hi-tech and Transport Equipment sectors are less dependent on imports than Germany's in what concerns intermediates produced by manufacturing industries. Finally, German competitiveness has been further boosted by a slower growth of wages with respect to domestic labour productivity, which allowed to shrink production costs at the expense of internal final demand.

Appendix A. Methodology

The main data source to perform the empirical computations has been the World Input-Output Database (WIOD) Project (Timmer, 2012),[9] which provides a times-series of square[10] industry $\times$ industry Input-Output tables at basic current (and past-year) prices for the period 1995-2009.[11] The WIOD setting consists in 40 regions,[12] with 35 industries each, obtaining $40 \times 35 = 1400$ geo-industries, with an additional residual region for the Rest of the World (RoW).[13]

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[9]The WIOD Project has been funded by the EC as part of the 7th. Framework Programme, and it has been developed and deployed by a Consortium of European institutions from the Netherlands, Spain, Austria, Germany, Belgium, France and Greece. See http://www.wiod.org/ for details. The database can be accessed for free.

[10]The fixed product sales structure assumption has been used in the WIOD Project to obtain a square Input-Output system from a set of International Supply and Use Tables. See Timmer (2012) for details.

[11]The latest release also includes tables for 2010 and 2011. However, it does not include the socio-economic accounts and the tables at past-year prices, which are necessary for computing labour productivity. The table for 2009 from the previous release has not been used here because it is based on an update of the 2008 one. While the procedure is in general accurate, given the peculiarities of the post-crisis years using such a table could have led to misleading results.

[12]The 40 regions included are: each of the EU27 countries, US, Canada, Mexico, Brazil, China, India, Japan, South Korea, Australia, Taiwan, Turkey, Indonesia and Russia.

[13]The Multi-regional Input-Output accounting framework provided by this database conforms to the methodology discussed in Garbellini et al. (2014).

The two basic measures used in Section are national and international vertically integrated labour, and the corresponding labour productivity changes.

The multiregional Input-Output framework can be written as $\mathbf{X}\mathbf{e} + \mathbf{f}$, i.e.:

$$\begin{bmatrix} \mathbf{q}^1 \\ \vdots \\ \mathbf{q}^r \\ \vdots \\ \mathbf{q}^s \end{bmatrix} = \begin{bmatrix} \mathbf{X}^{11} & \cdots & \mathbf{X}^{1r} & \cdots & \mathbf{X}^{1s} \\ \vdots & \ddots & \vdots & \ddots & \vdots \\ \mathbf{X}^{r1} & \cdots & \mathbf{X}^{rr} & \cdots & \mathbf{X}^{rs} \\ \vdots & \ddots & \vdots & \ddots & \vdots \\ \mathbf{X}^{s1} & \cdots & \mathbf{X}^{sr} & \cdots & \mathbf{X}^{rs} \end{bmatrix} \begin{bmatrix} \mathbf{e} \\ \vdots \\ \mathbf{e} \\ \vdots \\ \mathbf{e} \end{bmatrix} + \begin{bmatrix} \mathbf{f}^{11} & \cdots & \mathbf{f}^{1r} & \cdots & \mathbf{f}^{1s} \\ \vdots & \ddots & \vdots & \ddots & \vdots \\ \mathbf{f}^{r1} & \cdots & \mathbf{f}^{rr} & \cdots & \mathbf{f}^{rs} \\ \vdots & \ddots & \vdots & \ddots & \vdots \\ \mathbf{f}^{s1} & \cdots & \mathbf{f}^{sr} & \cdots & \mathbf{f}^{ss} \end{bmatrix} \begin{bmatrix} 1 \\ \vdots \\ 1 \\ \vdots \\ 1 \end{bmatrix}$$

where s is the number of countries, $\mathbf{q}^r$ is the vector of country r's gross output, $\mathbf{X}^{rr}$ country r's matrix of inter-industry transactions, $\mathbf{X}^{r1}$ the matrix of country r's intermediate exports to country 1, $\mathbf{X}^{1r}$ the matrix of country r's intermediate imports from country 1, $\mathbf{f}^{r1}$ the vector of country r's final exports to country 1, and $\mathbf{f}^{1r}$ the vector of country r's final imports from country 1.

Hence, from country r's perspective, the matrix of intermediate imports, total exports, total imports, final demand and gross output can be computed as, respectively:

$$\mathbf{X}^r_m = \sum_{j \neq r} \mathbf{X}^{jr}$$

$$\mathbf{x}^r = \sum_{j \neq r} \mathbf{X}^{rj}\mathbf{e} + \sum_{j \neq r} \mathbf{f}^{rj}$$

$$\mathbf{m}^r = \mathbf{X}^r_m\mathbf{e} + \sum_{j \neq r} \mathbf{f}^{jr}$$

$$\mathbf{d}^r = \mathbf{x}^r + \sum_{j \neq r} \mathbf{f}^{rj}$$

$$\mathbf{q}^r = \mathbf{X}^{rr}\mathbf{e} + \mathbf{d}^r$$

Denoting by $\mathbf{a}^T_n = [\mathbf{a}^{rT}_n]$ $(r = 1, \ldots, s)$ the vector of direct labour coefficients, the vector of vertically integrated labour coefficients for each country r is given by:

$$\mathbf{v}^{rT} = [v^r_i] = \mathbf{e}^T \widehat{\mathbf{a}}^r_n (\mathbf{I} - \mathbf{A}^{rr})^{-1} = \mathbf{e}^T \mathbf{V}^r (\mathbf{I} - \mathbf{A}^{rr})^{-1}$$

where

$$\mathbf{A}^{rr} = \mathbf{X}^{rr} \left(\widehat{\mathbf{q}}^r\right)^{-1}$$

Each column of matrix $\mathbf{V}^r$ represents the corresponding expanded vertically integrated labour coefficient, disaggregated by industry of origin.

In the same way, the vector of international vertically integrated labour coefficients is given by:

$$\mathbf{v}^T = [v^{i,r}] = \mathbf{e}^T \widehat{\mathbf{a}}_n (\mathbf{I} - \mathbf{A})^{-1} = \mathbf{e}^T \mathbf{V} (\mathbf{I} - \mathbf{A})^{-1}$$

where

$$\mathbf{A} = \mathbf{X} \widehat{\mathbf{q}}^{-1}$$

Though the analytical expressions for the national and international vertically integrated labour coefficients is formally analogous, the meaning of the two sets of indicators is different. While v_i^r (vertically integrated labour for subsystem i in country r) is the quantity of country i's labour directly and indirctly necessary to produce one unit of commodity i as final demand — including intermediate exports — $v^{i,r}$ (vertically integrated labour for subsystem $\{i, r\}$) is the quantity of labour directly and indirectly needed, *independently of the country of origin*, for country i to deliver one unit of commodity i as a *final consumption and investment commodity only*. In other words, while in the first case production chains are vertically integrated throghout industries but *within* national borders, in the second case subsystems are vertically integrated *both* throughout industries *and* national borders.

Finally, labour productivity changes are computed as:

$$\varrho_{i,t}^r = \frac{\varrho_{i,t}^r - \varrho_{i,t-1}^r}{\varrho_{i,t-1}^r}$$

$$\varrho_t^{i,r} = \frac{\varrho_t^{i,r} - \varrho_{t-1}^{i,r}}{\varrho_{t-1}^{i,r}}$$

It can be shown[14] that when labour coefficients are computed using tables at constant prices, changes in labour productivity does not depend on relative prices.

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[14] See Garbellini and Wirkierman (2014) for a formal proof.

Table A.1: Classification of activities by technological group

Technological group	Code	Short description	Description
agro	AtB	Agriculture	Agriculture, Hunting, Forestry and Fishing
const	F	Construction	Construction
hitech	24	Chemicals	Chemicals and Chemical Products
	29	Machinery nec	Machinery, Nec
	30t33	Optical Equipm.	Electrical and Optical Equipment
lowtech	19	Leather	Leather, Leather and Footwear
	20	Wood	Wood and Products of Wood and Cork
	15t16	Food	Food, Beverages and Tobacco
	17t18	Textiles	Textiles and Textile Products
	21t22	Paper, Printing	Pulp, Paper, Paper , Printing and Publishing
	36t37	Manufacturing nec	Manufacturing, Nec; Recycling
medtech	25	Rubber and Plastics	Rubber and Plastics
	26	Non-Metal Mineral nec	Other Non-Metallic Mineral
	27t28	Basic, Fabr.Metal	Basic Metals and Fabricated Metal
minengy	23	Coke, Ref.Petr	Coke, Refined Petroleum and Nuclear Fuel
	C	Mining	Mining and Quarrying
	E	Electricity, Gas, Water	Electricity, Gas and Water Supply
tertiary	50	Trade: Vehicles	Sale, Maintenance and Repair of Motor Vehicles and Motorcycles; Retail Sale of Fuel
	51	Wholesale Trade	Wholesale Trade and Commission Trade, Except of Motor Vehicles and Motorcycles
	52	Retail Trade	Retail Trade, Except of Motor Vehicles and Motorcycles; Repair of Household Goods
	60	Inland Transport	Inland Transport
	61	Water Transport	Water Transport
	62	Air Transport	Air Transport
	63	Auxiliary Transp. Act.	Other Supporting and Auxiliary Transport Activities; Activities of Travel Agencies
	64	Post and Telecomm.	Post and Telecommunications
	70	Real Estate	Real Estate Activities
	71t74	Renting of M&Eq	Renting of M&Eq and Other Business Activities
	H	Hotels, Restaurants	Hotels and Restaurants
	J	Financial Intermediation	Financial Intermediation
	L	PA and Defence	Public Admin and Defence; Compulsory Social Security
	M	Education	Education
	N	Health	Health and Social Work
	O	Social Services	Other Community, Social and Personal Services
	P	Private HH	Private Households with Employed Persons
vehicles	34t35	Transport Equipm.	Transport Equipment

Table A.2: Composition of Exports/Imports by technological classification of industries of origin, Italy and Germany

	Exports								
	Italy					Germany			
	1995	2000	2008	2011		1995	2000	2008	2011
agro	1.6	1.3	1.3	1.4	agro	0.9	0.9	0.8	0.9
const	0.3	0.2	0.3	0.2	const	0.3	0.4	0.3	0.3
minengy	1.5	2.3	4.3	4.5	minengy	1.5	1.9	3.6	3.1
low	26.4	24.7	20.1	20.3	low	13.8	12.9	12.4	12.1
med	15.3	14.3	17.3	17.4	med	14.2	12.9	14.9	15.1
hi	31.4	32.6	32.4	32.5	hi	41.1	39.3	37.4	37.0
vehicles	8.7	9.6	9.5	8.5	vehicles	18.6	20.9	18.8	19.5
tertiary	14.8	14.9	14.8	15.2	tertiary	9.6	10.9	11.8	11.9
Total	100.0	100.0	100.0	100.0	Total	100.0	100.0	100.0	100.0
	Imports								
	Italy					Germany			
	1995	2000	2008	2011		1995	2000	2008	2011
agro	4.5	3.2	2.6	2.9	agro	4.3	3.1	2.7	3.3
const	0.4	0.2	0.3	0.3	const	0.9	0.7	0.5	0.5
minengy	8.2	11.2	16.2	19.0	minengy	5.7	8.0	13.0	7.0
low	19.6	16.8	15.4	15.5	low	21.5	17.8	14.1	15.3
med	14.0	11.9	13.6	12.3	med	13.4	11.8	14.5	15.7
hi	28.6	29.0	24.9	24.9	hi	29.5	31.0	29.2	32.2
vehicles	9.2	11.6	10.3	8.1	vehicles	10.9	12.1	11.6	12.3
tertiary	15.5	16.2	16.7	17.0	tertiary	13.8	15.4	14.5	13.7
Total	100.0	100.0	100.0	100.0	Total	100.0	100.0	100.0	100.0

Table A.3: Composition of exports by delivering and purchasing technological categories, Italy and Germany

1995

	Germany										Italy									
	agro	const	en	low	med	hi	veh	tert	C	K	agro	const	en	low	med	hi	veh	tert	C	K
hitech	2.3	4.2	2.4	4.6	5.5	20.5	3.2	11.2	12.1	34.0	2.1	3.8	2.4	3.8	4.4	16.7	3.3	9.7	14.3	39.5
lowtech	1.7	1.9	0.4	25.7	1.8	2.4	0.9	12.9	51.1	1.1	0.5	1.4	0.2	18.5	1.2	1.4	1.2	6.8	67.0	1.7
medtech	0.8	15.4	1.6	8.0	28.9	16.3	9.1	8.3	5.9	5.7	1.1	20.8	1.7	6.7	22.3	13.6	8.9	8.1	10.0	6.9
minengy	3.6	7.5	12.8	5.9	10.9	11.7	1.3	22.5	19.9	4.1	3.3	9.4	11.7	3.9	7.9	6.5	0.9	24.6	29.4	2.5
tertiary	1.8	4.6	3.4	8.9	4.8	7.2	2.1	45.6	18.0	3.8	1.7	4.4	3.5	8.3	5.4	7.6	2.6	37.3	23.2	6.0
vehicles	0.3	0.6	0.5	0.7	0.8	2.1	21.4	12.7	26.8	34.0	0.3	0.4	0.3	0.5	0.5	1.3	25.9	11.8	30.6	28.4

2000

	Germany										Italy									
	agro	const	en	low	med	hi	veh	tert	C	K	agro	const	en	low	med	hi	veh	tert	C	K
hitech	1.8	3.9	2.2	3.9	5.0	22.3	3.6	11.7	13.0	32.6	1.7	3.9	2.3	3.7	4.4	17.7	3.8	10.0	16.8	35.6
lowtech	1.1	2.3	0.4	25.2	1.8	2.7	1.1	13.3	50.6	1.7	0.5	1.3	0.2	18.3	1.1	1.4	1.5	6.8	67.0	1.9
medtech	0.7	15.7	1.4	7.9	28.3	17.3	9.7	8.9	5.7	4.5	0.8	19.8	1.7	6.8	22.5	14.9	10.0	8.6	8.4	6.6
minengy	3.1	6.4	16.2	4.1	7.2	10.1	0.9	25.0	23.5	3.6	3.1	7.6	12.8	3.2	5.1	7.3	0.7	27.5	30.8	1.9
tertiary	1.6	4.4	3.8	7.7	4.2	8.2	2.0	47.0	16.7	4.4	1.2	4.4	3.1	8.0	4.0	7.6	2.4	40.8	23.3	5.1
vehicles	0.3	0.5	0.4	0.6	0.6	1.7	23.7	11.8	28.0	32.4	0.3	0.4	0.3	0.5	0.5	1.4	30.9	14.4	26.7	24.6

2008

	Germany										Italy									
	agro	const	en	low	med	hi	veh	tert	C	K	agro	const	en	low	med	hi	veh	tert	C	K
hitech	1.7	4.2	3.4	3.4	5.9	24.0	3.7	11.9	14.6	27.2	1.6	4.5	3.4	3.0	5.2	19.6	4.2	10.4	15.5	32.5
lowtech	1.0	2.6	0.6	19.1	1.9	2.7	0.8	13.3	55.5	2.4	0.4	1.4	0.4	14.4	1.1	1.5	1.3	7.1	69.8	2.6
medtech	0.6	16.4	1.8	6.2	31.6	18.4	8.7	7.8	4.9	3.6	0.7	18.0	2.1	5.4	27.5	16.9	9.8	7.4	5.6	6.7
minengy	3.0	4.2	12.2	5.0	8.2	12.7	1.2	25.4	25.9	2.3	2.6	4.5	15.8	3.0	5.0	5.4	0.5	27.3	35.0	0.8
tertiary	1.2	5.0	3.7	6.0	4.6	10.4	2.1	47.5	15.8	3.7	1.0	4.8	2.8	7.4	3.9	8.4	2.2	43.8	21.8	4.1
vehicles	0.4	0.9	0.6	0.6	1.0	2.2	24.6	12.0	28.7	29.2	0.4	0.7	0.6	0.5	0.6	1.6	29.4	13.1	25.1	28.0

Table A.4: Composition of imports by delivering and purchasing technological categories, Italy and Germany

1995

| | Germany | | | | | | | | | | Italy | | | | | | | | | |
	agro	const	en	low	med	hi	veh	tert	C	K	agro	const	en	low	med	hi	veh	tert	C	K
hitech	1.5	3.8	1.5	4.1	6.5	25.1	3.7	10.0	15.6	28.3	0.7	2.7	0.9	6.4	8.2	26.3	2.2	13.2	13.2	26.3
lowtech	0.5	2.9	0.2	17.6	1.8	3.2	1.4	7.5	63.7	1.3	0.9	1.7	0.2	28.5	2.3	2.6	0.7	11.2	51.2	0.7
medtech	0.5	14.8	1.3	3.6	32.1	19.6	12.3	4.8	6.7	4.2	0.1	10.3	0.6	8.2	37.1	23.5	6.5	7.1	4.2	2.5
minengy	1.3	3.0	26.4	3.9	13.9	7.3	1.1	11.4	31.3	0.4	0.9	1.8	56.6	2.6	10.0	3.9	0.3	11.3	12.3	0.2
tertiary	0.8	3.3	5.9	6.2	4.8	9.4	2.7	44.6	19.8	2.6	0.6	4.8	9.7	8.5	5.1	6.8	1.4	45.2	16.4	1.5
vehicles	0.1	0.2	0.1	0.2	0.6	1.0	23.6	4.2	29.1	41.0	0.2	0.4	0.0	0.3	1.0	1.6	8.7	11.2	31.4	45.2

2000

| | Germany | | | | | | | | | | Italy | | | | | | | | | |
	agro	const	en	low	med	hi	veh	tert	C	K	agro	const	en	low	med	hi	veh	tert	C	K
hitech	0.9	3.0	1.1	3.5	5.3	26.0	4.1	8.8	16.5	30.8	0.5	2.2	1.3	5.1	6.9	23.4	2.2	12.4	15.5	30.5
lowtech	0.5	2.4	0.2	16.6	1.7	3.2	1.9	7.5	63.9	2.1	0.6	1.5	0.3	26.4	2.1	2.5	0.7	10.9	53.9	1.1
medtech	0.4	13.4	1.2	3.7	30.3	19.4	15.9	4.3	7.2	4.1	0.1	9.8	0.8	8.2	35.3	23.5	6.9	7.5	4.9	3.0
minengy	1.2	2.5	32.7	3.2	10.1	6.9	1.1	12.2	29.8	0.2	0.5	1.3	72.3	1.5	5.9	2.3	0.2	6.5	9.4	0.2
tertiary	0.4	2.1	5.7	4.8	3.9	9.0	3.9	48.2	18.9	3.1	0.4	4.0	10.1	8.1	4.6	6.4	1.5	46.9	16.0	1.9
vehicles	0.1	0.1	0.1	0.2	0.4	1.1	29.3	7.0	22.9	38.7	0.1	0.3	0.1	0.3	1.0	1.6	10.5	13.0	30.3	42.9

2008

| | Germany | | | | | | | | | | Italy | | | | | | | | | |
	agro	const	en	low	med	hi	veh	tert	C	K	agro	const	en	low	med	hi	veh	tert	C	K
hitech	1.1	2.7	1.5	3.2	6.3	27.8	4.8	8.2	21.5	23.0	0.6	1.9	2.2	4.7	6.5	22.2	2.6	12.2	19.8	27.3
lowtech	0.8	1.6	0.3	17.4	2.3	3.7	2.3	7.6	62.1	1.9	0.6	1.4	0.4	18.8	2.0	2.0	0.6	9.4	64.0	0.9
medtech	0.4	8.4	1.2	3.2	37.5	20.3	17.0	3.5	5.4	3.0	0.1	8.5	0.8	6.9	44.2	20.0	6.0	7.1	4.1	2.3
minengy	1.0	1.4	37.9	3.5	11.1	6.6	1.2	11.8	25.1	0.3	0.4	0.8	77.4	1.0	5.6	2.0	0.1	6.2	6.4	0.1
tertiary	0.5	1.8	9.0	4.6	4.6	9.4	4.1	45.7	17.2	3.3	0.4	4.0	13.8	7.0	4.9	6.0	1.5	47.6	13.6	1.3
vehicles	0.1	0.2	0.1	0.3	0.5	1.6	35.5	7.0	18.5	36.2	0.3	0.4	0.1	0.5	3.1	3.2	14.0	18.3	33.0	27.1

Table A.5: *ITT*, Italy and Germany (1995-2008)

		1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Difference
								Italy								
								(%)								(1995-2008)
lowtech	Food	9.61	9.16	8.87	8.02	7.48	8.53	9.33	9.04	8.25	8.02	8.03	8.60	8.75	9.31	-0.30
	Leather	16.42	16.25	14.36	14.27	12.02	17.38	18.35	15.83	13.59	13.47	14.16	16.34	16.85	15.09	-1.33
	Manufacturing nec	12.90	12.23	12.17	12.54	11.61	12.88	13.10	11.63	11.34	11.58	11.17	12.89	12.56	12.33	-0.57
	Paper, Printing	21.41	17.43	18.58	18.41	18.11	20.03	18.48	18.26	17.77	17.57	18.28	18.77	18.76	18.32	-3.09
	Textiles	18.57	17.42	20.40	19.14	18.19	20.46	21.48	18.83	18.36	19.18	18.81	20.47	20.30	18.30	-0.27
	Wood	18.82	16.81	18.12	18.39	18.19	19.10	18.32	19.45	19.29	20.94	21.59	23.76	23.28	22.24	3.43
medtech	Basic, Fabr.Metal	23.94	21.10	22.22	22.98	21.70	26.04	24.84	23.38	22.58	25.71	26.40	31.60	32.56	31.49	7.55
	Non-Metal Mineral nec	9.63	8.78	8.76	9.05	8.64	9.11	8.99	8.27	8.15	8.71	8.61	9.09	9.46	9.73	0.10
	Rubber and Plastics	16.92	15.99	16.18	16.43	16.83	18.22	18.88	17.57	18.52	19.93	21.60	23.17	24.20	24.40	7.49
hitech	Chemicals	44.60	42.69	43.85	43.98	42.39	48.06	48.19	45.79	47.22	47.96	50.80	51.54	51.55	51.34	6.74
	Machinery nec	21.22	21.34	22.19	22.26	20.45	22.60	22.84	24.11	23.93	22.65	22.76	24.43	26.88	28.10	6.87
	Optical Equipm.	35.87	33.22	31.92	32.57	33.65	36.65	34.73	30.99	29.80	34.11	33.56	33.79	32.96	32.01	-3.86
vehicles	Transport Equipm.	27.77	25.84	26.51	31.76	29.39	37.75	40.15	38.54	48.91	47.41	46.76	48.05	48.34	52.86	25.09
Average		21.36	19.87	20.32	20.75	19.90	22.83	22.90	21.67	22.13	22.87	23.27	24.81	25.11	25.04	3.68
								Germany								
		1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Difference
								(%)								(1995-2008)
lowtech	Food	9.55	9.74	10.76	11.61	11.01	13.86	13.75	14.44	14.18	14.92	15.09	17.05	19.32	20.28	10.72
	Leather	59.37	55.78	61.43	63.95	59.69	57.90	59.63	64.72	65.66	86.92	92.21	92.02	94.08	94.06	34.69
	Manufacturing nec	37.15	36.92	37.45	38.78	38.92	42.11	42.36	42.45	45.20	46.37	45.87	46.32	41.39	38.59	1.44
	Paper, Printing	23.28	22.18	22.72	24.46	24.66	30.03	29.38	30.85	33.46	33.38	33.71	35.94	36.84	37.12	13.84
	Textiles	71.05	71.73	76.26	61.27	76.76	66.14	63.90	65.79	68.71	82.98	85.15	87.69	87.61	89.50	18.46
	Wood	21.25	22.89	23.76	25.16	24.42	29.21	27.46	26.28	28.22	27.76	27.59	29.26	29.42	30.21	8.96
medtech	Basic, Fabr.Metal	30.20	31.23	31.93	32.61	31.76	37.47	36.31	37.16	37.84	41.06	42.37	47.49	47.78	47.81	17.61
	Non-Metal Mineral nec	15.26	15.92	17.02	18.90	18.14	20.94	21.86	21.97	22.68	23.80	24.34	25.43	26.76	27.36	12.10
	Rubber and Plastics	22.84	24.08	25.47	27.23	28.01	32.16	31.28	32.42	34.56	35.84	37.28	39.19	41.35	41.65	18.81
hitech	Chemicals	50.10	52.11	56.34	65.06	71.03	61.56	64.44	58.38	59.36	64.76	68.50	75.39	75.60	81.62	31.51
	Machinery nec	20.34	21.47	24.75	26.26	28.65	30.60	30.32	32.12	31.16	32.53	33.14	32.92	35.07	34.98	14.64
	Optical Equipm.	38.12	38.56	40.40	39.41	42.48	47.25	48.42	49.43	49.68	56.74	56.67	50.26	54.15	55.50	17.38
vehicles	Transport Equipm.	34.24	35.69	38.03	37.93	37.17	35.71	34.55	35.64	38.15	39.45	40.41	40.53	40.20	41.28	7.03
Average		33.29	33.72	35.87	36.36	37.90	38.84	38.74	39.36	40.68	45.12	46.33	47.65	48.43	49.23	15.94

Table A.6: ICP, Italy and Germany (1995-2008)

| | | Italy | | | | | | | | | | | | | | |
| | | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | Difference |
								(%)									(1995-2008)
lowtech	Food	3.92	3.65	3.58	3.26	2.98	3.58	3.92	3.67	3.34	3.27	3.28	3.51	3.61	3.88	-0.04
	Leather	5.58	5.49	5.45	5.23	4.24	6.33	6.93	6.14	5.20	4.90	4.99	6.02	6.19	5.43	-0.15
	Manufacturing nec	3.14	2.77	3.00	3.15	2.91	3.46	3.53	3.33	3.30	3.69	3.67	4.21	4.13	4.10	0.96
	Paper, Printing	15.80	12.11	12.94	13.01	13.09	15.20	13.96	13.50	13.10	13.01	13.64	14.02	14.08	13.64	-2.16
	Textiles	7.22	6.43	7.45	7.14	6.78	7.65	7.65	7.13	6.89	7.00	6.86	7.56	7.40	6.71	-0.50
	Wood	16.86	14.73	15.74	16.05	16.06	17.18	15.80	16.91	16.95	18.64	19.47	21.37	21.35	20.13	3.28
medtech	Basic, Fabr.Metal	21.77	18.35	19.61	20.25	18.92	22.92	21.89	20.27	19.41	22.33	22.65	27.38	28.25	26.77	5.00
	Non-Metal Mineral nec	6.85	6.29	6.23	6.43	6.27	6.64	6.67	6.31	6.28	6.74	6.76	7.18	7.46	7.70	0.84
	Rubber and Plastics	12.23	11.64	11.67	11.91	12.34	13.15	13.46	12.59	13.09	13.81	14.75	15.78	16.49	16.59	4.36
hitech	Chemicals	34.80	32.35	33.28	33.36	31.86	36.48	35.68	33.73	35.77	37.17	38.93	40.34	41.30	41.17	6.38
	Machinery nec	5.64	5.57	5.61	6.10	6.14	6.74	6.83	7.09	7.03	6.74	6.80	7.20	7.76	7.96	2.32
	Optical Equipm.	21.14	19.04	18.21	19.04	20.02	22.09	20.55	18.42	18.03	20.87	20.49	20.52	19.31	18.97	-2.16
vehicles	Transport Equipm.	9.80	8.93	9.47	10.93	11.26	15.00	16.47	16.30	22.29	21.13	21.18	21.34	21.95	23.81	14.02
Average		12.67	11.34	11.71	11.99	11.76	13.57	13.33	12.72	13.13	13.79	14.11	15.11	15.33	15.14	2.47

| | | Germany | | | | | | | | | | | | | | |
| | | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | Difference |
								(%)									(1995-2008)
lowtech	Food	2.71	2.79	3.11	3.29	3.01	3.61	3.47	3.59	3.80	3.97	4.00	4.63	5.25	5.58	2.86
	Leather	15.92	15.03	17.04	17.64	16.52	17.96	17.48	16.60	18.32	23.67	26.82	27.33	28.18	27.66	11.74
	Manufacturing nec	8.13	8.36	8.88	9.24	9.11	10.59	10.67	11.36	12.14	13.18	13.55	14.83	14.30	13.28	5.15
	Paper, Printing	15.16	14.19	14.27	15.36	15.57	18.74	18.68	18.82	20.06	19.67	19.39	20.48	21.26	21.30	6.14
	Textiles	21.35	21.38	23.10	19.10	23.54	21.10	19.36	19.44	20.84	24.23	24.55	26.44	25.33	25.32	3.97
	Wood	19.17	20.76	21.33	22.29	21.47	23.78	21.29	19.70	21.46	20.97	20.44	22.07	22.26	22.52	3.35
medtech	Basic, Fabr.Metal	23.50	24.00	24.41	25.27	24.94	29.32	27.73	27.33	28.17	31.16	32.57	37.66	39.57	39.36	15.86
	Non-Metal Mineral nec	12.82	13.21	13.95	15.17	14.66	16.71	17.08	16.59	17.22	17.33	17.47	18.31	18.81	19.19	6.37
	Rubber and Plastics	16.05	16.92	17.94	19.15	19.58	22.48	21.42	21.30	22.99	23.43	24.53	26.29	28.05	28.08	12.03
hitech	Chemicals	24.44	24.65	26.18	31.15	34.27	30.97	33.32	28.06	28.35	31.33	32.73	35.40	36.08	37.26	12.82
	Machinery nec	6.65	6.95	7.76	8.19	8.87	9.34	9.40	9.71	9.59	10.04	10.30	10.41	11.41	11.30	4.66
	Optical Equipm.	21.05	21.19	22.11	22.20	23.61	25.88	26.88	26.15	26.12	29.64	29.69	26.57	28.31	28.89	7.84
vehicles	Transport Equipm.	8.16	9.31	10.38	10.63	10.89	11.54	11.22	11.61	12.31	12.68	13.32	13.47	13.25	13.77	5.61
Average		15.01	15.29	16.19	16.82	17.39	18.62	18.31	17.71	18.57	20.10	20.72	21.84	22.47	22.58	7.57

Table A.7: ICE, Italy and Germany (1995-2008)

		1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Difference
								Italy								
								(%)								(1995-2008)
lowtech	Food	6.04	5.54	5.52	4.95	4.25	5.38	5.80	4.96	4.53	4.39	4.37	4.63	4.78	4.94	-1.10
	Leather	6.38	6.18	6.47	6.12	4.88	7.13	7.94	7.21	6.10	5.60	5.64	6.82	7.15	6.18	-0.20
	Manufacturing nec	3.09	2.65	2.85	3.00	2.81	3.38	3.44	3.32	3.37	4.09	4.25	5.03	4.87	4.98	1.89
	Paper, Printing	36.79	28.24	30.02	30.43	31.12	36.49	34.67	31.56	30.57	30.61	31.87	33.50	33.83	32.49	-4.30
	Textiles	9.57	8.32	9.39	9.15	8.79	9.93	9.66	9.21	8.79	8.76	8.60	9.33	9.20	8.47	-1.10
	Wood	57.95	49.84	52.10	53.66	54.09	57.90	51.67	51.32	55.11	59.82	60.00	63.59	65.97	61.97	4.02
medtech	Basic, Fabr.Metal	48.22	40.73	43.46	44.93	42.69	48.61	47.03	43.51	41.12	42.89	42.33	48.20	50.33	47.04	-1.18
	Non-Metal Mineral nec	5.72	5.21	5.18	5.46	5.56	6.06	6.58	6.54	6.56	7.10	7.41	7.75	8.35	8.63	2.91
	Rubber and Plastics	17.00	16.50	16.39	17.33	17.80	18.53	18.48	17.99	17.35	17.91	18.38	19.34	20.17	20.07	3.07
hitech	Chemicals	44.97	40.90	41.50	40.71	38.46	40.53	38.09	35.42	37.21	38.81	39.25	41.23	42.53	41.62	-3.35
	Machinery nec	4.62	4.45	4.44	4.98	5.13	5.72	5.74	5.92	5.75	5.60	5.67	6.17	6.66	6.68	2.06
	Optical Equipm.	22.35	20.15	19.92	20.24	20.74	22.30	20.77	19.14	18.17	20.95	20.31	20.59	20.20	19.32	-3.02
vehicles	Transport Equipm.	7.55	6.86	7.66	8.33	8.88	11.50	13.13	12.53	16.67	15.76	15.69	16.18	16.57	17.64	10.09
Average		20.79	18.12	18.84	19.18	18.86	21.04	20.23	19.13	19.33	20.17	20.29	21.72	22.35	21.54	0.75
								Germany								
		1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Difference
								% ratio to total								(1995-2008)
lowtech	Food	3.21	3.26	3.63	3.78	3.45	3.76	3.65	3.68	3.99	4.17	4.10	4.75	5.24	5.49	2.28
	Leather	14.02	13.33	15.08	15.35	14.35	14.79	15.02	13.45	13.89	17.29	18.64	19.90	21.66	19.96	5.94
	Manufacturing nec	12.41	12.64	13.42	14.24	13.47	15.78	15.37	16.31	16.54	18.20	19.09	20.33	18.52	17.44	5.03
	Paper, Printing	22.70	21.65	21.99	23.11	23.37	27.37	27.85	26.14	26.16	25.52	24.72	26.26	27.50	27.53	4.82
	Textiles	18.73	18.47	19.63	16.49	19.69	18.26	16.87	16.51	17.17	19.56	19.57	21.14	20.27	19.82	1.09
	Wood	39.91	38.05	37.59	35.20	33.92	33.71	29.76	27.31	29.65	28.51	28.10	30.43	30.99	29.48	-10.43
medtech	Basic, Fabr.Metal	38.46	37.94	38.52	41.35	40.71	46.20	43.96	42.79	43.86	47.14	49.16	53.86	57.67	56.81	18.35
	Non-Metal Mineral nec	15.31	15.19	16.01	17.20	16.48	18.69	19.52	18.53	17.90	17.81	18.90	19.79	20.77	20.25	4.94
	Rubber and Plastics	18.27	18.85	20.24	21.38	22.06	24.79	24.18	23.49	24.42	24.98	26.89	28.17	29.50	28.92	10.65
hitech	Chemicals	20.17	19.98	21.31	24.81	26.74	26.91	28.70	24.18	24.32	25.66	26.63	28.09	29.42	29.05	8.88
	Machinery nec	6.50	6.83	7.48	8.01	8.69	9.45	9.72	9.81	9.84	10.05	10.45	10.67	12.07	11.95	5.45
	Optical Equipm.	18.28	18.00	18.88	19.06	20.62	22.83	23.58	22.43	22.90	25.94	25.97	25.00	26.09	25.96	7.68
vehicles	Transport Equipm.	8.32	9.74	10.98	11.39	11.89	12.19	12.04	12.27	13.11	13.48	14.08	14.55	14.48	15.02	6.70
Average		18.18	18.00	18.83	19.34	19.65	21.13	20.79	19.76	20.29	21.41	22.02	23.30	24.17	23.67	5.49

Table A.8: National VI labour productivity change, Italy and Germany (1996-2008)

								Italy							
		1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Average
								% growth								(1996-2007)
lowtech	Leather	-1.90	4.91	0.70	-0.59	6.23	4.83	-3.16	0.12	1.22	2.94	4.95	-1.01	-7.48	1.60
	Wood	4.05	7.06	3.48	4.13	6.66	5.30	-4.57	3.09	1.71	0.94	3.32	1.40	-7.84	3.05
	Food	3.35	4.86	2.75	4.75	8.31	-1.53	0.88	1.73	1.10	4.70	-0.62	-0.15	-3.58	2.51
	Textiles	1.85	3.11	2.50	4.54	7.97	0.58	-1.42	-2.00	0.19	2.41	3.38	-0.49	-1.25	1.89
	Paper, Printing	0.56	5.36	2.12	2.69	5.08	2.06	-0.71	-0.53	3.01	0.98	1.35	1.71	-2.21	1.98
	Manufacturing nec	-0.87	6.23	-0.14	3.38	6.82	-2.02	-0.42	-0.90	1.73	1.16	1.42	0.25	-3.05	1.39
medtech	Rubber and Plastics	1.36	4.34	2.01	2.85	0.56	0.40	4.54	0.45	4.83	-0.08	2.20	-2.07	-4.55	1.78
	Non-Metal Mineral nec	2.41	2.47	2.46	3.47	4.74	-0.10	2.35	-0.15	2.83	-0.38	1.66	-2.38	-6.03	1.62
	Basic, Fabr.Metal	-3.09	6.07	0.64	1.94	4.22	1.48	0.90	0.44	0.70	1.37	0.03	0.90	-2.77	1.30
hitech	Chemicals	5.34	5.25	1.62	5.32	-0.06	0.99	2.38	3.78	1.51	-2.28	2.14	0.82	-3.10	2.23
	Machinery nec	-0.74	2.45	-0.17	1.17	5.99	0.30	-0.89	0.73	3.03	1.08	2.24	1.57	-2.57	1.40
	Optical Equipm.	1.27	5.40	0.70	1.09	6.75	1.96	-0.25	-2.35	6.77	-0.14	0.67	1.52	-2.89	1.95
vehicles	Transport Equipm.	-0.37	7.64	1.45	3.06	6.70	1.83	0.29	0.56	-0.14	-3.26	3.76	4.20	-3.04	2.14
								Germany							
		1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Average
								% growth								(1996-2007)
lowtech	Leather	4.01	4.80	1.26	6.22	-1.26	8.79	2.11	-1.97	6.01	8.49	3.94	3.63	-13.81	3.84
	Wood	1.13	10.11	0.74	5.54	2.68	1.55	4.44	5.82	-2.06	9.33	6.14	-1.99	-4.50	3.62
	Food	3.59	1.14	-0.85	3.23	3.31	1.27	-0.02	2.85	1.71	2.59	4.65	2.18	-4.45	2.14
	Textiles	6.57	7.16	1.86	4.93	4.17	1.77	0.03	4.17	5.48	4.19	5.64	6.27	-3.38	4.35
	Paper, Printing	6.01	2.80	0.22	15.99	2.61	-1.82	-0.70	1.70	5.57	5.41	6.00	1.67	10.89	3.79
	Manufacturing nec	1.84	6.01	3.71	3.11	5.50	0.94	-1.77	1.49	5.33	2.97	9.72	-1.68	8.76	3.10
medtech	Rubber and Plastics	4.01	4.08	1.26	3.64	1.19	0.07	4.36	3.68	3.79	3.28	7.27	1.14	-2.40	3.15
	Non-Metal Mineral nec	2.14	4.12	1.10	3.17	2.84	0.30	1.48	4.97	4.29	1.16	7.85	-0.14	-2.03	2.77
	Basic, Fabr.Metal	3.47	4.75	2.96	0.61	7.19	1.42	0.86	2.76	1.80	0.63	7.36	3.34	-3.22	3.10
hitech	Chemicals	5.81	5.10	3.75	4.18	6.09	2.79	1.36	2.33	5.71	3.55	4.18	3.86	-1.88	4.06
	Machinery nec	4.03	3.42	4.47	-1.03	6.88	1.73	-0.47	0.56	3.48	5.71	7.95	4.49	-2.30	3.43
	Optical Equipm.	7.31	6.39	4.69	8.94	10.35	-0.95	-0.73	8.80	7.69	9.98	13.14	12.07	-2.66	7.31
vehicles	Transport Equipm.	3.29	7.97	5.52	1.62	2.77	6.60	0.18	4.70	2.42	4.61	9.80	5.48	-1.94	4.58

Table A.9: Labour productivity and employment dynamics, Italy and Germany (1996-2007)

		$\varrho > 0, r_E^{(\%)} > 0$		$\varrho > 0, r_E^{(\%)} < 0$		$\varrho < 0, r_E^{(\%)} > 0$		$\varrho < 0, r_E^{(\%)} < 0$	
		ITA	DEU	ITA	DEU	ITA	DEU	ITA	DEU
lowtech	Food	3	3	6	7	2	0	1	2
	Leather	0	1	8	9	1	0	3	2
	Manufacturing nec	3	2	4	8	1	1	4	1
	Paper, Printing	4	4	6	6	2	0	0	2
	Textiles	2	0	7	12	0	0	3	0
	Wood	4	2	7	8	1	2	0	0
medtech	Basic, Fabr.Metal	9	7	2	5	1	0	0	0
	Non-Metal Mineral nec	3	3	5	8	2	1	2	0
	Rubber and Plastics	6	6	4	6	1	0	1	0
hitech	Chemicals	5	4	5	8	2	0	0	0
	Machinery nec	8	7	1	3	2	0	1	2
	Optical Equipm.	7	4	2	6	1	1	2	1
vehicles	Transport Equipm.	5	8	4	4	1	0	2	0

Table A.10: International VI labour productivity change, Italy and Germany (1996-2008)

		1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Average
								Italy							
								% growth							(1996-2007)
lowtech	Food	6.85	1.00	2.18	5.91	8.41	1.61	3.57	-1.75	-1.89	4.30	0.67	0.52	-6.04	2.62
	Leather	4.49	2.39	-1.45	3.42	-1.64	-1.12	-3.20	-0.88	2.24	3.44	-0.59	-0.52	-3.95	0.55
	Manufacturing nec	3.77	1.08	-5.51	2.81	4.73	0.90	-1.40	-3.32	-0.39	2.46	-0.78	0.46	-2.57	0.40
	Paper, Printing	9.95	2.27	-1.52	2.09	0.20	4.10	1.02	-2.41	2.32	1.72	1.21	0.00	-2.19	1.75
	Textiles	9.17	-1.21	-2.82	5.77	0.54	-1.84	-0.41	-4.85	-2.49	1.89	0.19	2.76	-0.02	0.56
	Wood	6.44	2.07	-3.36	3.37	8.31	8.29	-3.20	-2.70	-1.54	2.13	4.47	-0.35	-4.93	1.99
medtech	Basic, Fabr.Metal	7.29	1.38	-3.28	4.69	1.43	3.15	-0.36	-1.51	-6.89	2.53	-6.12	-0.81	-5.05	0.12
	Non-Metal Mineral nec	6.32	0.43	-3.57	1.83	3.32	-0.47	-0.28	-2.48	0.59	3.36	0.54	-1.06	-5.49	0.71
	Rubber and Plastics	6.46	0.56	-1.19	4.11	0.15	1.65	1.57	-2.64	1.81	0.70	-0.28	-1.22	-6.08	0.98
hitech	Chemicals	9.05	-1.55	-1.87	4.97	-1.79	2.39	1.02	-0.13	1.17	-0.69	0.30	-0.53	-5.27	1.03
	Machinery nec	4.97	-0.44	-3.96	1.63	4.75	0.77	-1.89	-0.61	0.63	2.38	-0.78	-0.94	-5.72	0.54
	Optical Equipm.	5.74	2.71	-3.35	2.17	4.83	1.74	-0.67	-1.69	1.02	2.34	-1.99	-0.20	-4.41	1.05
vehicles	Transport Equipm.	3.52	4.50	-4.55	0.93	1.85	0.28	-1.97	-1.60	-2.34	-0.30	-1.78	1.16	-7.26	-0.02
								Germany							
								% growth							(1996-2007)
lowtech	Food	4.56	-9.35	1.32	5.61	2.89	6.87	3.13	-2.05	-0.54	2.22	4.38	-0.34	-8.43	1.56
	Leather	5.90	3.18	-0.05	4.69	-0.87	-1.55	6.36	-4.33	-24.29	-1.28	8.52	-1.98	3.17	-0.48
	Manufacturing nec	5.42	4.68	-2.84	0.81	-0.95	5.26	-1.77	-4.61	-1.77	2.47	6.48	-0.32	-0.69	1.07
	Paper, Printing	7.86	3.09	-2.08	7.77	-2.00	0.56	1.53	-1.73	4.07	4.75	4.07	-0.10	3.24	2.32
	Textiles	8.76	2.09	-6.60	9.53	-5.37	5.81	1.35	-6.43	-11.01	0.43	0.08	5.04	-2.02	0.31
	Wood	7.08	4.87	-6.40	0.60	3.92	7.11	1.55	0.45	-1.55	3.68	0.98	-3.60	1.92	1.56
medtech	Basic, Fabr.Metal	8.85	3.41	0.39	3.09	0.69	5.19	1.63	-3.30	-6.45	-1.40	-2.11	-1.21	-4.28	0.73
	Non-Metal Mineral nec	4.36	3.25	-1.22	1.10	0.07	5.04	1.51	0.26	1.46	0.98	5.99	-1.30	-4.31	1.79
	Rubber and Plastics	7.59	1.30	-1.16	2.08	0.25	3.83	3.33	-2.86	0.15	1.42	2.87	0.05	-4.49	1.57
hitech	Chemicals	8.09	1.04	-1.91	0.07	2.40	7.55	2.43	-3.12	1.77	0.20	2.66	-1.32	-5.62	1.66
	Machinery nec	6.09	3.90	-0.13	-2.82	4.04	2.97	0.28	-4.89	-2.37	3.21	2.22	0.27	-5.08	1.06
	Optical Equipm.	9.75	4.73	-1.12	5.53	1.86	-1.55	1.62	-2.14	-2.11	7.29	9.09	5.65	-0.43	3.22
vehicles	Transport Equipm.	2.89	6.29	-2.49	-3.12	1.64	8.14	-1.36	-2.62	-4.01	2.20	5.37	1.91	-7.13	1.24

Table A.11: International VI labour coefficients, proportion of own labour, Italy and Germany (1995-2008)

		Italy														
		1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Difference
		% ratio to total														(1995-2008)
lowtech	Food	64.92	67.33	64.69	63.86	64.57	65.08	68.35	69.43	67.24	64.54	65.04	64.84	65.49	64.52	-0.40
	Leather	62.89	66.64	66.63	64.91	67.67	62.91	60.29	60.61	60.41	59.89	60.47	58.09	58.27	59.40	-3.49
	Manufacturing nec	67.60	70.96	68.37	65.04	66.03	64.87	66.15	66.03	64.56	62.69	63.44	61.38	61.74	61.98	-5.62
	Paper, Printing	67.72	72.75	71.12	68.99	69.88	68.18	69.58	69.53	68.83	68.33	68.58	68.53	67.83	67.44	-0.28
	Textiles	59.45	63.76	60.80	58.55	60.29	56.28	55.16	56.00	54.00	51.93	51.86	50.23	51.73	52.59	-6.85
	Wood	70.15	72.42	69.69	65.86	66.26	67.13	68.39	68.94	66.43	63.80	64.19	64.77	64.49	65.71	-4.44
medtech	Basic, Fabr.Metal	66.05	71.39	68.86	66.13	68.03	65.82	67.15	66.86	65.65	61.25	62.27	57.79	57.25	56.45	-9.60
	Non-Metal Mineral nec	70.90	74.01	72.74	69.73	69.69	68.90	69.21	68.58	67.43	66.24	68.07	67.20	67.73	67.44	-3.46
	Rubber and Plastics	62.24	65.20	62.94	61.12	62.56	61.66	62.62	62.08	60.34	59.14	59.14	57.98	58.00	57.05	-5.19
hitech	Chemicals	56.10	58.45	55.17	53.38	54.53	53.13	54.70	54.81	52.54	52.11	52.16	51.10	50.64	49.56	-6.53
	Machinery nec	67.44	71.53	69.75	67.12	68.33	66.94	67.69	67.11	66.07	64.15	64.84	62.47	61.50	59.82	-7.62
	Optical Equipm.	65.98	69.45	68.28	65.67	66.80	65.09	65.73	65.78	65.37	61.20	62.24	60.36	59.80	59.14	-6.84
vehicles	Transport Equipm.	65.41	68.72	67.06	63.65	64.28	61.37	61.02	60.70	58.66	57.14	58.14	55.30	54.34	51.96	-13.45
		Germany														
		1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Difference
		% ratio to total														(1995-2008)
lowtech	Food	61.47	61.85	54.99	55.18	56.10	55.39	58.76	60.05	57.62	56.44	56.39	56.33	55.19	53.11	-8.37
	Leather	47.35	48.72	47.84	47.15	46.78	47.53	44.06	45.50	43.93	30.85	28.37	29.46	28.17	31.85	-15.49
	Manufacturing nec	60.46	62.49	61.97	58.42	57.41	55.13	57.31	57.41	53.82	50.42	50.21	49.17	49.74	47.25	-13.21
	Paper, Printing	69.46	70.68	70.81	68.86	65.89	63.52	64.93	66.15	63.61	62.92	62.71	61.90	61.20	58.50	-10.97
	Textiles	43.59	44.89	42.93	39.75	41.02	37.94	39.62	40.05	35.98	30.04	28.86	27.26	27.14	27.25	-16.33
	Wood	60.30	62.63	60.24	55.85	53.74	53.85	56.76	56.40	53.58	53.11	52.12	50.57	50.60	52.59	-7.71
medtech	Basic, Fabr.Metal	55.68	58.16	57.68	56.03	56.88	53.96	56.00	56.02	52.85	49.11	48.33	44.25	43.05	42.41	-13.26
	Non-Metal Mineral nec	67.46	68.97	68.44	66.22	65.16	63.57	66.27	66.33	63.60	62.26	62.01	61.47	60.99	59.26	-8.20
	Rubber and Plastics	59.42	61.00	59.27	57.12	56.09	56.44	58.22	57.87	54.40	52.62	51.89	50.24	49.76	48.12	-11.30
hitech	Chemicals	54.25	55.37	53.64	50.63	48.80	48.13	50.19	50.60	48.33	47.09	45.69	45.40	43.70	41.63	-12.61
	Machinery nec	60.03	61.63	61.49	59.10	57.76	56.74	57.69	57.39	54.45	51.31	50.74	48.69	47.00	45.59	-14.44
	Optical Equipm.	58.62	60.40	59.83	57.45	55.89	52.31	52.66	52.52	47.50	42.97	42.12	41.09	38.97	38.96	-19.66
vehicles	Transport Equipm.	50.70	51.14	50.60	47.97	46.44	47.09	48.10	47.21	43.64	41.00	40.54	39.09	38.08	36.40	-14.30

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Table A.12: Decomposition of 'imported' VIL by industry of origin, constant 1995 prices, lowtech VISs

VIS	Component	Germany				Italy			
		1995	2000	2004	2008	1995	2000	2004	2008
Food	agro	55.06	61.66	54.82	52.35	67.14	60.68	57.46	54.37
	const	1.04	0.67	0.69	0.85	0.57	0.57	0.56	0.56
	minengy	2.60	2.24	2.06	2.35	2.00	2.28	2.25	1.97
	vehicles	0.52	0.45	0.46	0.43	0.29	0.57	0.56	0.85
	tertiary	26.23	23.32	28.44	29.27	19.14	24.50	27.32	28.17
	lowtech	6.23	5.61	6.42	6.41	5.43	5.13	5.63	6.20
	medtech	4.42	3.14	3.67	3.85	2.57	3.13	3.10	3.66
	hitech	3.90	2.91	3.44	4.49	2.86	3.13	3.10	4.23
Leather	agro	23.15	24.95	30.49	33.77	31.72	28.30	27.00	27.65
	const	0.95	0.76	0.58	0.44	0.54	0.54	0.50	0.49
	minengy	2.47	2.29	1.45	1.62	2.69	2.43	2.00	1.98
	vehicles	0.38	0.38	0.29	0.29	0.54	0.54	0.50	0.74
	tertiary	33.21	32.38	23.70	20.70	30.38	34.50	33.50	31.60
	lowtech	31.69	30.86	38.01	36.86	25.81	25.07	28.50	28.40
	medtech	3.42	3.62	2.75	2.79	4.03	4.58	4.50	4.69
	hitech	4.74	4.76	2.75	3.52	4.30	4.04	3.50	4.44
Manufacturing nec	agro	19.90	18.67	18.18	18.71	22.77	20.00	19.79	20.05
	const	1.26	0.89	1.01	1.13	0.92	0.86	0.80	0.79
	minengy	3.78	3.11	2.63	3.21	4.62	3.71	3.48	3.69
	vehicles	0.76	0.67	0.61	0.95	0.62	0.57	0.80	1.06
	tertiary	32.24	32.67	32.53	32.70	32.00	35.14	36.36	35.88
	lowtech	26.45	29.78	32.32	27.60	20.31	22.86	22.99	20.84
	medtech	9.32	8.67	7.68	8.88	12.92	11.71	10.96	11.35
	hitech	6.30	5.56	5.05	6.81	5.85	5.14	4.81	6.33
Paper, Printing	agro	15.74	17.26	15.95	16.11	24.38	19.44	19.56	19.94
	const	1.64	1.10	1.35	1.44	0.93	0.94	0.95	0.92
	minengy	4.59	4.11	3.51	3.61	4.32	4.39	4.10	3.68
	vehicles	0.66	0.55	0.54	0.72	0.62	0.94	0.95	1.23
	tertiary	46.56	47.95	50.54	48.08	37.04	44.20	45.43	43.56
	lowtech	17.70	17.81	16.76	17.31	20.68	18.18	17.35	16.87
	medtech	5.57	4.66	4.86	5.29	4.94	5.02	5.36	6.13
	hitech	7.54	6.58	6.49	7.45	7.10	6.90	6.31	7.67
Textiles	agro	24.47	24.64	25.32	31.14	31.11	28.02	27.03	31.09
	const	0.71	0.64	0.57	0.55	0.49	0.68	0.62	0.42
	minengy	2.66	2.25	1.72	2.06	2.72	2.51	1.87	2.10
	vehicles	0.35	0.32	0.29	0.27	0.49	0.46	0.42	0.63
	tertiary	28.01	26.41	23.61	20.71	24.94	27.79	25.36	23.53
	lowtech	35.46	38.16	42.63	38.27	32.84	33.49	39.09	34.87
	medtech	3.19	2.90	2.43	2.61	2.96	2.96	2.49	2.94
	hitech	5.14	4.67	3.43	4.39	4.44	4.10	3.12	4.41
Wood	agro	36.18	36.66	33.69	30.95	37.25	31.10	34.90	34.40
	const	1.26	0.87	0.85	1.05	0.67	0.61	0.55	0.87
	minengy	3.02	2.60	2.56	3.16	3.02	2.74	2.49	2.33
	vehicles	0.50	0.43	0.43	0.63	0.34	0.61	0.55	0.87
	tertiary	27.39	26.90	29.64	31.79	25.50	28.66	28.53	29.45
	lowtech	21.36	23.21	23.67	20.42	24.50	28.05	25.48	22.16
	medtech	5.53	4.56	4.26	5.05	4.70	4.57	4.16	5.25
	hitech	4.77	4.77	4.90	6.95	4.03	3.66	3.32	4.66

Table A.13: Decomposition of 'imported' VIL by industry of origin, constant 1995 prices, medtech VISs

VIS	Component	Germany				Italy			
		1995	2000	2004	2008	1995	2000	2004	2008
Basic, Fabr.Metal	agro	7.69	8.04	8.06	8.85	12.09	10.47	10.05	11.24
	const	1.58	1.30	1.38	1.39	1.18	1.16	1.03	1.15
	minengy	8.14	6.74	6.29	6.60	8.26	6.40	6.44	6.19
	vehicles	0.90	0.87	0.79	1.04	0.88	1.16	1.29	1.61
	tertiary	40.72	44.78	47.35	45.14	38.35	43.31	46.13	43.58
	lowtech	5.88	6.30	6.88	6.77	7.37	7.56	7.73	7.80
	medtech	27.15	25.00	22.40	22.57	24.78	23.55	21.13	21.10
	hitech	7.92	6.96	6.88	7.64	7.08	6.40	6.19	7.34
Non-Metal Mineral nec	agro	10.46	9.59	9.50	10.78	15.07	12.18	11.24	13.15
	const	2.46	1.64	1.85	1.96	1.37	1.28	1.48	1.53
	minengy	9.54	9.32	9.23	8.33	16.78	14.10	16.57	12.84
	vehicles	0.62	1.10	1.06	1.23	0.68	0.96	0.89	1.22
	tertiary	45.23	49.59	51.45	49.51	39.04	44.55	44.67	43.73
	lowtech	6.46	6.03	6.60	6.86	8.56	8.01	7.99	8.56
	medtech	17.23	15.62	12.66	12.25	11.30	12.18	11.24	11.31
	hitech	8.00	7.12	7.65	9.07	7.19	6.73	5.92	7.65
Rubber and Plastics	agro	15.10	15.40	15.82	18.11	20.69	17.10	17.11	18.41
	const	1.24	1.15	1.05	1.16	1.06	1.04	0.98	0.93
	minengy	4.70	4.14	4.01	4.24	5.04	4.66	4.16	3.96
	vehicles	0.74	0.69	0.63	0.77	0.80	1.04	1.22	1.63
	tertiary	44.31	45.75	45.36	42.58	40.05	44.56	45.72	42.89
	lowtech	9.90	10.57	12.66	10.98	9.55	9.59	10.76	10.26
	medtech	10.40	10.11	9.92	10.02	10.08	10.10	10.02	10.26
	hitech	13.61	12.18	10.55	12.14	12.73	11.92	10.02	11.66

Table A.14: Decomposition of 'imported' VIL by industry of origin, constant 1995 prices, hitech and vehicles VI sectors

		Germany				Italy			
VIS	Component	1995	2000	2004	2008	1995	2000	2004	2008
Chemicals	agro	12.72	12.55	12.83	14.02	17.95	15.53	16.08	18.02
	const	1.54	1.16	1.32	1.20	1.14	1.06	1.04	0.99
	minengy	5.92	5.98	4.91	4.96	6.36	5.53	5.22	4.75
	vehicles	0.66	0.77	0.75	0.85	0.68	0.85	0.84	0.99
	tertiary	51.75	55.21	56.23	54.02	41.82	46.81	49.06	45.54
	lowtech	7.46	7.14	7.55	7.01	8.64	8.30	8.56	8.71
	medtech	8.55	6.37	6.23	6.32	8.64	8.30	6.68	6.93
	hitech	11.40	10.81	10.19	11.62	14.77	13.62	12.53	14.06
Machinery nec	agro	9.02	8.80	8.83	9.91	13.80	11.48	10.89	12.22
	const	1.50	1.16	1.23	1.28	0.92	0.91	1.12	1.00
	minengy	5.01	4.17	3.90	4.22	6.13	4.83	4.75	4.74
	vehicles	1.00	1.16	1.03	1.28	0.92	1.21	1.68	2.00
	tertiary	40.10	42.13	43.74	41.10	39.26	44.11	46.37	43.14
	lowtech	6.27	6.71	6.78	6.97	7.36	7.25	7.54	7.73
	medtech	18.55	17.36	16.02	15.78	19.63	18.73	17.04	16.46
	hitech	18.55	18.52	18.48	19.45	11.96	11.48	10.61	12.72
Optical Equipm.	agro	8.94	9.41	9.46	10.66	13.82	11.71	10.82	12.47
	const	1.21	1.05	1.05	0.98	0.88	1.14	1.03	0.98
	minengy	4.59	3.77	3.50	3.93	5.00	4.29	4.12	4.16
	vehicles	0.72	0.84	0.70	0.82	0.88	1.14	1.03	1.47
	tertiary	39.61	42.68	42.03	38.52	40.29	44.86	45.88	42.54
	lowtech	6.28	6.49	6.30	6.72	6.76	6.86	6.96	7.58
	medtech	15.22	13.60	12.26	11.97	14.41	14.29	13.40	13.45
	hitech	23.43	22.18	24.69	26.39	17.94	15.71	16.75	17.36
Transport Equipm.	agro	9.33	9.07	9.15	10.22	13.87	11.37	10.96	11.85
	const	1.42	1.13	1.19	1.26	0.87	1.03	0.93	1.04
	minengy	4.67	3.78	3.39	3.77	5.49	4.13	3.96	3.95
	vehicles	7.71	8.70	8.47	8.81	4.05	6.20	6.29	7.90
	tertiary	39.55	43.10	43.73	41.82	38.73	42.89	44.52	41.16
	lowtech	8.11	8.32	9.15	8.65	9.25	8.79	9.09	8.94
	medtech	17.85	15.88	14.58	14.47	17.34	16.28	14.69	14.14
	hitech	11.36	10.02	10.34	11.01	10.40	9.30	9.56	11.02

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