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The Impact of Trade Margins Matrix on the Statistical Sources

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Abstract

The trade margins (or distributive margins) matrix represents one of the most relevant aggregate in a input-output framework. Consequently, the distributive margin is a typical issue of National Accounts, where the trade service is quantified by the differences between the value of the sales and the value of purchases of goods for resale. In this paper we describe the principal steps of the procedure for the construction of this matrix for Italy. The proposed methodology is founded on the business statistics approach and tries to answer to the question "who sell what and to whom?". The data collected from the enterprises, at a very detailed level of classification, provide a good representation of the "distributive channels" (e.g. supermarkets, traditional grocery stores) but it needed an integration with information related to the economic destination of products (householders, enterprises, etc.) and to the different products sold by each commercial firm.

Using the trade margins matrix we can reconstruct all the transactions from the production to the consumption of a good (the trade *filières*). For this reason, the trade margins matrix is also a very important tool for the economic analysis.

The difficulties in making a trade margins matrix consists in some hypotheses that develop the theoretical concepts and in the use of more then one data sources. This paper, sets out the background to estimate a trade margins matrix in national accounts, stresses same methodological definitions and describes how to improve statistics on trades in a supply and use context. Furthermore, we provide some suggestions to improve the links between the business statistics approach and the product approach.

1. Introduction[1]

The trade margins matrix represents one of the most relevant aggregate in an input-output framework and it is also a very important analytical tool for economic analysis. In fact, using the trade margins matrix it is possible to reconstruct all the transactions from the production to the consumption of a good (the trade *filières*). This is very interesting because the trade sector, that is part of the services sector, allows to investigate all the sectors producing goods. Thus, it appears that the estimate of a trade margins matrix depends on a methodology dealing with the analysis of microdata. The most direct way of achieving this aim is by using the data collected from the firms survey. A cause of difficulties comes from the need to use information from different sources in order to make a linkage between the business accounting and the tradable goods. For these reasons, the construction of a trade margins matrix is an interesting issue for the discussion on the use, the development and the matching of the available data.

The general framework of this paper is the European System of Accounts (ESA95)[2], which provided a comprehensive national accounting system, that articulated all the transactions taking place in the economy. All the concepts and definitions used here must be referred to it. The aim of the paper is to analyses more deeply the role of the different statistical sources, available in Italy, for the internal trade sector. The approach proposed to estimate the trade margins is based on a complete profit and loss account of enterprises[3]. This approach is preferred because only through more and more information related to the business accounting the amount of trade margins can be estimated. Furthermore, the usefulness of data from enterprises is recognized by the consistency with the estimates of output and value added of national accounts. Using the data collected from enterprises, for instance, it is possible to include into the trade margins the estimate of the hidden economy, necessary to have exhaustive the national accounts figures.

The difficulties of the methodology used to evaluate the trade margins attempt to a procedure based on more reliable hypotheses. Indeed, the aim of the paper consists in the proposing a procedure characterized by clear assumption and that could be repeated more frequently rather than for benchmarking purpose.

The paper is organized as follows. Section 2 reviews the general framework, and discusses the points of strength and weakness in making a trade margins matrix. Section 3 describes the procedure used in Italy. Section 4 stressed out the main results of the Italian experience. Finally the section 5 tries to draw same conclusions for discussion.

[1] We are grateful, with the usual disclaimers, for helpful comments and suggestions provided by A. Bernardi, R. Gismondi, S. Mantegazza, C. Melchioni, G. Pellegrini, G. Tria, A. Viviani, e L. Zanderighi, members of the task force, supported by Istat, on trade margins. The authors are the sole responsible for the views expressed here, which do not necessarily represent those of the National Statistical Office of Italy. Although the paper is a joint effort, sections 3.2, 3.3 and 4 can be attributed to R. Piergiovanni, sections 2 and 3.1 to S. Pisani.

[2] Eurostat (1996a, chap. 9).

[3] Another approach for the trade margins is based on the analyses of products that is linked with the French experience.

2. The general framework

The value of trade margins represents the output of wholesalers and retailers. Since the traders are treated as supplying services, their output is measured by the total value of the trade margins realized for resale (United Nations *et al*., 1993, p. 347). Using the business statistics approach it is possible to collect the different data necessary to estimate the trade margins directly from those enterprises, that classify themselves as wholesale and retail traders. The equation to be estimated to evaluate the margin trade is the following:

$$Mc = Ts - Pr + \Delta I \qquad [2.1]$$

where T*s* represents the value of sales (that is a part of the total turnover), P*r* is the value of goods purchased for resale and ΔI is the value of changes in inventories of goods for resale (final inventories minus initial inventories).

As is well known, a firm could be engaged in diversified activities not classified in the trade sector. For example, a trader in computers could supply repair services. As a result of this consideration the total turnover (T*t*) could be greater or equal to the value of sales (T*t* ≥ T*s*). In the case of identity the firm is completely engaged in trade's activities. Whereas, when T*r* > Ts it is necessary to single out the activity that produces the revenue corresponding to the value of T*r* = T*t* – T*s*. This peculiar activity could concerns the manufacture of goods or the production of services. The identification of this kind of activity is important both for the purposes of economic analysis and of national accounts.[4] In same cases, the evaluation of T*r* is important also for the measurement of the correct trade margin. In the Italian experience, for instance, an enterprise of the manufacturing sector could offer to the trader a bonus on the base of the performance of his sales. If this bonus is not accounted as value of sales (T*s*), but it is included in the total turnover (T*t*), then the trade margin in [2.1] is underestimated.

The formula [2.1] is not enough for the estimate of a trade margin matrix. Indeed, the purpose of this matrix is to integrate the data from the firms with those that concern the flows of tradable goods, in order to split the trade margin among the different products. And so, the formula becomes:

$$Mc = \Sigma_i \, Ts_i - Pr_i + \Delta I_i \qquad i = 1, \ldots, n \qquad [2.1a]$$

where *i* represents the n products that a commercial firm sells. Thus, we have the following two topics:

- a more strict link with the data sources from the trade's firms;
- the need for more information concerning the mark-up by product.

Of these two issues the latter presents very important methodological implications, in general related to survey, and in detail, related to the inclination of the enterprises of not always giving realistic figures. One of the purposes of the national accounts (Eurostat, 1996), consists in using the data collected at the firm level, so that reliable estimates of the national accounts aggregates can be obtained. On the other hand, data collected by enterprises and the adaptation of these data to the national accounts requirements often require checking and adjusting techniques to make exhaustive estimates. In particular, we would stress the

[4] This topic is related to the identification of the local kind of activity units.

propensity of the enterprise to under-report the turnover. For this reason in national accounts we usually check the data deriving from [2.1] in order to integrate the turnover of the under-reporting firms[5]. Since, the [2.1a] represents a further disaggregation of the [2.1], we can treat the problem of the underdeclaration of the mark up by product in the same manner of the underdeclaration of the total turnover.

A further issue for the purpose of the trade margin matrix concerns the "uses" of the tradable goods. The diagram 1 may also help to clarify the flows of the trade margins from supply to uses through trade channels. In the example, the flow of total resources (domestic output+imports) follows different distributive channels before arriving to the final uses (the expenditure of householders, enterprises non-trade, general government and exports).

Above all, the trade margins matrix takes in account only the flows of products that are involved in a trade transaction. Indeed, the flows of products that directly goes from the production to the uses, in the diagram 1 marked A, B and C, are neglected. In this paper we have not regard to the problems related to the definition of wholesale and retail trade, because we assume as reliable the Italian classification ATECO91.[6] From this point of view, as the diagram shows, the wholesale trade sells to the retailers and to the other economic agents. The retailer, at the same time, sells to householders, wholesalers, firms non-trade and in foreign market. Finally, the method used to estimate the trade margins takes in account all the trades within the wholesale and retail trade sector, even if these stages are not explicitly showed in the diagram 1.

3. The national account procedure

3.1 The trade margins by firms

The main steps of the methodology used to estimate the trade margin in the Italian benchmarking national accounts are described below. The estimate of the trade margins matrix could follows a more simplified procedure that does not identify a single trade margin for each tradable good, but evaluate the trade margins by branches of economic activity currently used in the Italian national accounts (Annex 1), where a single branch includes a number of different products. The data base sources concern the annual surveys conducted by Istat among enterprises: one is a complete survey for the enterprises with more than 20 workers[7], the second is a sample survey for the small firms (with less than 20 workers)[8]. Using this data base the trade margin is calculate by ATECO91 classification and by five size class. So that the equation [2.1] can be written as:

$$M_{ij} = Ts_{ij} - Pr_{ij} - \Delta I_{ij} \qquad [\ 3.1\ ]$$

where, i = five-digit ATECO91 of the trade sector; j = five size class (1-5, 6-9, 10-19, 20-49, more than 50 workers).

In accordance with a national account framework, the evaluation of the trade margins

[5] For the Italian experience, Istat (1993).
[6] The Italian classification marked ATECO91 at the five-digit is a further disaggregation of the four-digit NACE Rev. 1, and arises from the survey among Italian enterprises, Istat (1991).
[7] Istat , 1997a.
[8] Istat , 1997b.

Commercial trade activity should be the main activity performed by enterprises in this subset[14]. The trade margin, revalued per capita, was calculated for each economic activity branch and for each size class of the subset. The inverse of above ratio was applied to the corresponding M^R values of the whole population. In this way, an estimate of people specifically employed in trade was obtained (Ad*c*).

Finally, to evaluate the amount of trade margins by branches of economic activity, the per capita value is grossed up to the national account target population, the equation becomes:

$$M^U_{ih} = (M_{ih} / Adc_{ih}) (ULA_{ih}) \qquad [3.4]$$

3.2 The trade margins by product

As pointed out in section 2, the disaggregation of enterprise data by product is one of the most critical steps in the construction of the trade margin matrix. In the framework of national accounting, this task should be rather easy, since disaggregation can be limited to product groupings composing branches shown in Annex 1.

A sort of taxonomical approach was used for this type of disaggregation, the first step was the implementation of a linking frame for the international trade five digit ATECO91 and the corresponding manufacturing branches (Annex 2). As it can be seen, this is not a two-way relation between the two classifications, as the same enterprise can trade products from different branches. This is a rather limited problem for wholesale trade, as wholesalers tend to be more specialised than retailers, with reference to products. Moreover, for retail trade, the ISTAT survey on sales can be used[15]. In particular, survey data disaggregation have been made up to five-digit ATECO91 and by surveyed product groupings. With reference to market disaggregation in Table 1, it can be seen a clear specialisation by product of the specific ATECO91 categories (e.g. for foodstuff sellers more than 90% of sales is represented by products 1, food and beverages). Nevertheless for a further disaggregation is needed a more detailed description, as required by required by national accounting.

The survey on sales provides lots of information on turnover from the sale of different product categories, however data are still aggregated and not many details are given on trade margins. As far as some specific typologies are concerned, such as supermarkets or hypermarkets, remarkable differences may be found between the two shop-size owing to political differences of mark-up applied to different products. The lack of information due to the absence of a specific survey on margins is very clear at this level[16]. In the suggested procedure, margin is disaggregated as proportion of turnover, namely the average margin is calculated for enterprises operating in each sector of economic activity of the internal trade and thus, the average margin is distributed in the corresponding productive branches.

To use data in Table 1 it was necessary to re-classify the surveyed products according to the classification in branches of national accounting.

Lastly, a transition matrix $\underline{\underline{B}}$ was constructed taking into account both data from the classification of economic activities as well as results from survey on sales. Then, trade margins were calculated by economic sector and disaggregated as below

$$\underline{\underline{MP}}^U = (\underline{\underline{M}})(\underline{\underline{B}}) \qquad [3.5]$$

[14] Enterprises where $Ts \geq 0.98Tt$ are included in this subset

[15] Istat (1998a); Antinori and Gismondi (1998).

[16] For the Italian experience, Aimone and Pellegrini (1998).

where:

$\underline{\underline{MP}}^{U}$= trade margin vector (n,1) classified by productive branches;

$\underline{\underline{M}}$ = trade margin vector (1,m) classified by five-digit ATECO91;

$\underline{B}$ = transition matrix (m,n) from ATECO91 to branches

Formula [3.5] was distinctly applied to *h* size classes calculating the total by sum.

3.3 The uses of tradable goods

The last problem to be solved concerns the disaggregation of trade margins ($\underline{\underline{MP}}^{U}$) with reference to uses of tradable goods. Census of industry and services (1991)[17] was used, since it provides the percentage distribution of supplied services by type of users or customers.

In particular, purchasers of internal trade firms are classified into 9 categories, namely:

1. agriculture;	4. retail trade;	7. households;
2. industry;	5. other services;	8. export intra UE;
3. wholesale trade;	6. general government;	9. export extra UE.

It is evident the good approximation between the households consumption and export definition and the categories 7, 8 and 9. Furthermore, we could formulate the hypothesis that purchasers belonging to categories 1, 2, 5 e 6, purchase the goods needed for their productive activity. Then, with reference to the national accounts classification, the latter represent the share of internal trade output devoted to intermediate consumption or investments. The goods purchased by wholesale and retail trade sector are excluded from the previous uses, because the goods purchased for resale are not intermediate costs of internal trade[18].

Then, from census data three vectors (CT_h, h=1,2,3) are obtained, they include the internal trade turnover, for each of the three categories of uses (households consumption, intermediate consumption, investments and export). Moreover, each vector can be divided into the four size classes of enterprises, j=1, …, 4. Then, if the formula below is applied

$$\underline{\underline{CTP}}_{hj} = \underline{\underline{CT}}_{hj} * \underline{B} \qquad [4]$$

a vector $\underline{CTP}$ (1,m) is obtained. This vector includes the internal trade turnover, referred to a specific size class and a specific economic use, vector is re-classified according to productive branches shown in Annex 1.

In a following step, the elements composing the investment were divided from the aggregate intermediate consumption + investment. Firstly, branches which do not include investment goods were specified within vectors $\underline{CTP}_{hj}$ and for these branches there is only a trivial solution. As far as the other branches are concerned as further data are not available, amounts were disaggregated as proportion of the flows of intermediate consumption and investment of each branch. Thus, four $\underline{CTP}$ vectors are available for each employee class.

The different $\underline{\underline{CTP}}$ vectors use determines the share of turnover by productive branch. If it is assumed that margin distribution is similar to turnover distribution, then the

[17] Istat (1995)

[18] The suggested methodology distributes exchanges within the internal trade sector as proportion of the different uses.

disaggregation of margins by economic use is obtained multiplying these shares by $\underline{\underline{MP}}^{U}$.

4. Main results

The procedure described above was used to identify the trade margins for 1992, national accounts benchmarking year. In this section we show the first provisional results. In the classification used by Italian national accounts there are five trade sector branches: motor-vehicles and fuel traders, wholesalers, retail traders non-specialized, retail traders specialized in food, retail traders specialized in non-food.

Figure 1 shows the share of trade margins by branches of the internal trade. The share for the wholesale trade is very significant (40.4%), but if we consider all together the three branches of the retail trade, the share (48.5%) is the greatest component of internal trade. These results are consistent with the Italian distributive system, specialized in traditional trades non-food, that represents in terms of trade margins 66 per cent of total retail trade. On the other hand only 17% is the retail trade percentage represented by the most dynamic and modern component of retail trade (hypermarkets and supermarkets, etc.).

In Figure 2 the per capita trade margin by branches is shown as a proxy of productivity. The greatest productivity is recorded in the wholesaler trade, and to the motor vehicles and fuel traders, respectively with 134 and 127 billions per worker, whereas it proves to be almost low in all the branches of the retail trades. By focusing on specific branches of the retail trade the best performance is recorded in the retail trade non-specialized with 59 billions per worker. On the contrary, sector specialized in food (with 52 billions) is a sector which, despite the deep changes in structure of the'80s (Istat, 1998b), is characterised by traditional types of non specialised consumption which requires a lot of manpower. The retail trade specialized in non-food with 57 billions per workers is in an intermediate position, despite fragmentation of supply it is characterised by dynamics of modern distribution systems, such as new types of mergers (franchising, etc.).

Figure 3 shows the ratio of margins to purchases by branches of the trade sector that represents the mark-up. Obviously, the branch characterized by the lowest productivity (retail trade specialized in food) presents the greatest mark-up (the ratio is 72). The most competitive segment (retail trade non-specialized) has a reduced mark-up (33) due to the organisation of this sector. In fact this type of organisation afford greater economy of scale.

In the end, Figure 4 shows the uses of the trade margins. Expenditure of householders represent the greatest share (66%), however the figure 22 % represented by transactions carried out within the productive system should not be neglected.

5. Concluding remarks

The procedure described above is a first formal approach to the construction of trade margins matrix. As hinted in the previous sections, one of the advantages of this methodology is transparency of adopted base hypotheses. Therefore, the main problems related to data retrieval and quantification have been underlined. In this section some topics are introduced to develop the discussion on the establishment of a specific data base for the trade sector.

The analysis developed in the previous sections clearly shows that several information are required to construct a trade margins matrix. Thus a linkage of data from different sources is required.

From this viewpoint, the identification of product groupings sold by commercial enterprises is the starting point. In Italy, the short-term survey on sales provides these data, and since this survey is to be timely, it has a very concise market disaggregation. A structural survey would be useful to provide a better and more in-depth knowledge of the trade sector. However longer time would be required to carry out the survey, but more details would be provided for products and data would be linked with classifications adopted by National Institute of Statistics. Even the Eurostat Regulation on enterprise structural surveys recommends that National Institute of Statistics should survey turnover distribution by product[19].

Such a survey implies a number of problems which are mainly due to the different market classification adopted by commercial enterprises and by National Institutes of Statistics. In particular, in Italy trade sector surveys are rather expensive owing to the fragmentation of supply.

The second important element concerns the identification of purchasers of sold goods. In the previous section, it was seen that households represent the bigger share of purchasers, however the share of purchases from extra-commercial enterprises is meaningful as well. In this sector, it would be interesting to have a better specification of costs resulting from commercial intermediation. From a statistical standpoint, a correct survey of use shares may imply a number of definition problems, especially for bordering situations where purchases made by households can be mistaken with purchase for other uses. The Structural Regulation concerning Enterprises deals with this issue as well, but the disaggregation by customer typology seems to very concise and it is a merely voluntary question.[20]

As shown in the previous pages, it is clear that within internal trade there are extra-commercial activities. It would be useful to investigate those activities where the production of goods and/or services is carried out with purchase and sale of goods. These data, besides being helpful for national accounting, would help sector analysts in underlining specific elements, such as the closeness with the production of goods, qualitative aspects of service, positive relations with the production of other services, etc.

This aspect is related to the commercial activities by non-commercial enterprises (Albert, 1992). Even though this paper was not meant to discuss this issue, it was to be pointed out as an approach based on the enterprise data may lead to neglect an important part of trade activity carried out in our Country[21].

Lastly, one of the most important assumptions (on which this procedure is based) is to

[19] Official Gazette of the European Community, n. L 14/1 of 17.1.1997.
[20] Official Gazette of the European Community, n. L 14/1 of 17.1.1997.
[21] In Italy surveys carried out on enterprises include specific questions to get information on trade activity in extra-commercial enterprises. See specific provisions in the Enterprise Structural Regulation.

be discussed. One of the main problems is due to the non-availability of data on trade margins disaggregate by product. Difficulties in surveying this aspect are mainly due to two reasons: the burdensomeness of survey and the fact that enterprises do not provide reliable data. However, in Italy, experiments to have a more in-depth knowledge of the internal trade sectors were made, and these experiments should be further pursued.

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DIAGRAM 1

The flows of the trade margins in a supply and use table

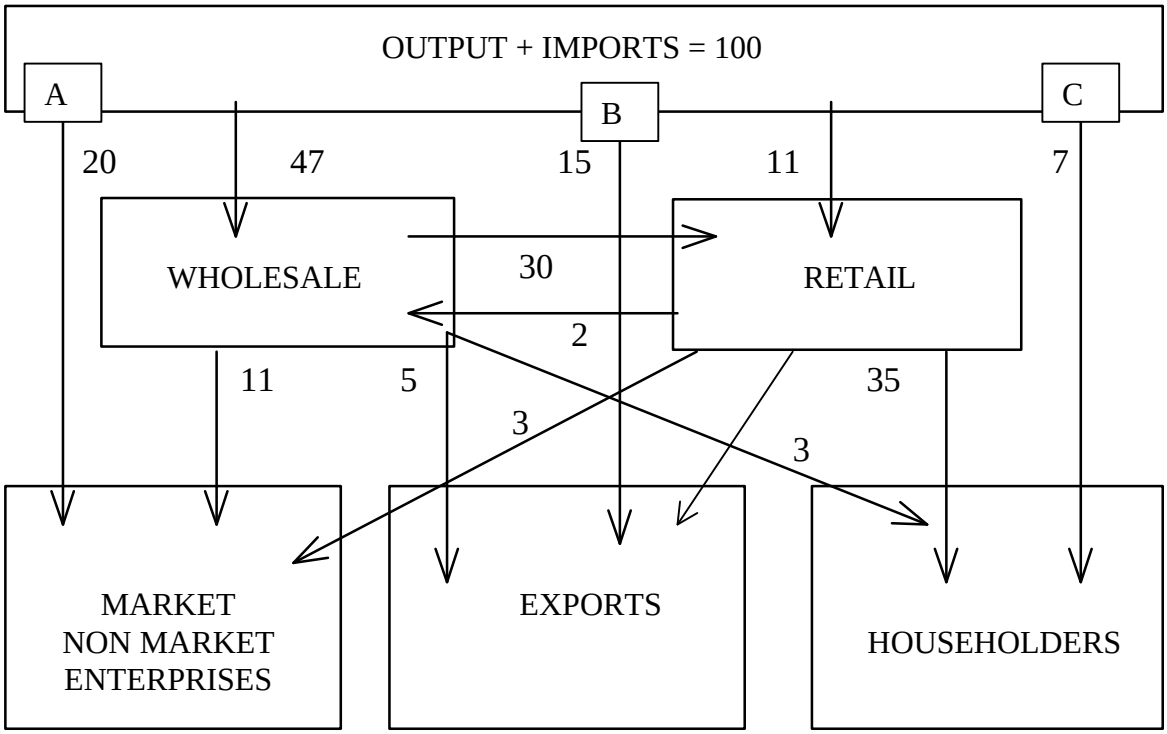


TABLE 1 - The percentage of the turnover by ATECO and groups of products in the retail trade survey

	GROUPS OF PRODUCTS OF THE ITALIAN SURVEY ON RETAIL TRADE SALES														
ATECO	*[1]*	*[2]*	*[3]*	*[4]*	*[5]*	*[6]*	*[7]*	*[8]*	*[9]*	*[10]*	*[11]*	*[12]*	*[13]*	*[14]*	*[15]*
52.111	89.67	1.94	1.76	.03	1.62	.05	.03	.02	.80	.05	.63	.17	.03	.11	3.10
52.112	94.68	.21	.33	.28	.41	.01	.02	.00	1.34	.03	1.88	.11	.01	.13	.54
52.113	97.03	.06	.29	.03	.29	.02	.01	.07	.71	.00	.77	.39	.01	.01	.30
52.114	94.40	.81	.08	.00	.00	.00	.00	.00	.23	.06	.36	.25	.00	2.58	1.24
52.121	13.26	.00	32.88	3.29	7.06	1.55	2.57	1.47	4.49	2.90	8.76	2.89	2.63	5.70	10.56
52.122	45.70	.54	3.93	.00	4.56	4.85	.03	.10	1.02	3.52	.62	1.03	.04	7.89	26.18
52.210	96.89	.00	.00	.00	.00	.00	.00	.00	.14	.00	.00	.00	.00	.00	2.97
52.221	95.59	.00	.27	.83	.91	.00	.00	.00	.00	.09	.00	.00	.00	.02	2.29
52.222	100.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
52.230	98.40	.26	.75	.00	.36	.00	.00	.23	.00	.00	.00	.00	.00	.00	.00
52.241	90.04	2.38	.37	.18	2.39	.00	.22	.17	1.33	.09	2.07	.06	.22	.22	.26
52.242	81.11	.00	10.34	.13	.00	.00	.02	.00	1.60	1.68	.04	.25	.02	.08	4.72
52.250	95.58	.00	2.13	1.80	.00	.00	.00	.00	.04	.00	.00	.00	.00	.00	.45
52.271	100.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
52.272	95.20	.00	.00	.06	.41	.00	.17	2.20	.22	.03	.53	.00	.17	.03	.99
52.273	92.21	.00	.00	.00	.00	.00	.00	.00	1.03	.00	.00	.96	.00	3.75	2.05
52.274	94.80	.00	.06	1.00	.50	.24	.00	.00	.65	1.16	.16	.00	.00	.46	.97
52.310	.61	98.68	.08	.01	.01	.00	.06	.00	.03	.00	.19	.06	.06	.01	.20
52.320	.00	99.38	.45	.00	.00	.00	.00	.09	.00	.00	.08	.00	.00	.00	.00
52.331	4.86	.00	.00	.00	.00	.00	.00	.00	.00	.00	86.33	.00	.00	.00	8.81
52.332	.00	.00	.36	1.24	.00	.23	.00	.00	.02	.15	96.67	.71	.02	.21	.39
52.411	.00	.05	93.27	.00	6.68	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
52.412	.00	.00	12.08	.02	85.18	.00	.07	.00	.46	.00	.45	.84	.07	.47	.35
52.413	.00	.01	47.74	.00	50.63	.00	.00	.00	.01	.00	.00	.00	.00	1.60	.00
52.414	.00	.00	92.72	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	7.28
52.421	.00	3.18	88.48	1.53	1.63	.00	.00	.02	.01	.57	.34	.19	.00	1.16	2.88
52.422	3.57	.00	95.66	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.75	.02
52.423	.00	.00	89.09	.03	10.74	.00	.00	.00	.04	.00	.06	.00	.00	.03	.01
52.424	.00	.00	94.46	.00	.00	.00	.00	.00	.00	.00	2.42	2.13	.00	.00	.98
52.425	.00	.00	96.80	3.20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
52.426	.00	.00	99.89	.11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
52.431	.02	.10	3.51	95.78	.29	.00	.00	.00	.00	.00	.02	.01	.00	.15	.12
52.432	.00	.00	.63	99.17	.00	.07	.00	.00	.04	.00	.02	.00	.00	.00	.05
52.441	.00	.40	1.66	.27	89.30	.46	.41	.00	.74	1.16	.42	2.08	.40	.14	2.55
52.442	.10	3.22	1.45	.09	1.87	1.17	.08	.04	85.04	3.31	.04	.13	.02	.59	2.85
52.443	.00	.00	.01	.03	6.95	15.95	30.40	.07	.83	14.84	.00	.00	30.03	.61	.30
52.444	.00	.00	.54	.82	95.67	.42	.00	.00	.42	.59	.00	.03	.00	.00	1.51
52.445	.00	.00	3.71	.18	15.48	5.76	4.70	.91	59.48	3.22	1.45	.84	.46	1.78	2.03
52.451	.20	6.29	1.52	.00	2.91	66.62	10.49	.38	3.40	.66	.66	.21	4.90	.33	1.43
52.452	.00	.50	.48	.01	3.44	12.92	53.03	2.06	.71	1.40	.01	.41	24.26	.00	.76
52.453	.00	.00	.00	.00	.00	.71	3.30	.00	.00	.01	.00	2.02	91.83	2.11	.02
52.454	.00	.00	.29	.00	.00	.00	14.89	.00	.00	.00	1.17	10.34	71.02	2.29	.00
52.455	.00	.00	.05	.00	.00	42.05	40.76	.00	.00	.00	.00	.00	.00	1.37	15.78
52.461	.00	.00	.54	.98	.21	.00	1.20	.00	1.91	91.62	.42	.00	1.20	.44	1.47
52.462	.77	.00	.00	.00	.21	.00	.00	.00	.48	95.41	.42	.00	.00	.00	2.71
52.463	.01	2.13	2.43	.00	1.25	.05	.00	.00	.01	90.96	1.24	.00	.22	.02	1.69
52.464	.33	.00	.18	.00	.15	.02	.01	.00	.02	88.59	.00	.00	.01	.51	10.18
52.465	.00	.00	.00	.00	14.41	.01	.00	.00	.00	66.60	.00	.00	.00	3.93	15.04
52.466	.16	.00	.12	1.08	.00	.13	.00	.00	.06	27.33	.25	.01	.00	.29	70.57
52.471	.00	.00	6.04	.23	.23	.00	.02	.88	.03	.04	.33	91.90	.02	.05	.23
52.472	4.11	.00	.12	.00	.00	.00	.00	.14	.17	.00	.71	91.61	.55	1.23	1.35
52.473	.00	.00	2.34	.00	.51	.00	.00	1.41	.60	4.68	.64	86.73	.01	.94	2.13
52.481	1.04	.00	.01	.00	14.67	.40	58.95	.00	.00	.39	.00	1.63	11.11	.00	11.81
52.482	.20	.00	.05	.00	1.37	.76	.88	94.19	.75	.63	.03	.00	.53	.09	.51
52.483	.08	.00	.49	.04	.75	.00	.02	1.51	.00	.00	.30	.28	.02	3.58	92.93
52.484	.00	.00	.04	.07	.00	.00	.00	.00	.25	.00	.01	.80	3.74	26.76	68.32
52.485	.09	.13	15.17	3.82	3.33	.00	.01	.00	5.09	.99	4.82	2.40	.04	61.28	2.83
52.486	.00	.04	.79	.39	4.72	.00	.57	.00	.45	.00	.01	.56	.00	9.08	83.42
52.489	.88	.00	9.74	.01	3.86	.00	.00	.00	.91	6.44	.00	10.27	.00	3.82	64.07
52.610	32.26	.00	3.39	.16	10.21	1.61	.87	.00	.26	.07	.50	.45	.87	.04	49.33
52.631	10.46	.00	.29	.00	49.94	4.95	.01	.00	33.96	.00	.01	.00	.01	.00	.38
TOTAL	32.39	17.15	14.75	3.16	5.84	1.88	1.34	.99	2.91	3.72	1.75	3.02	1.18	3.14	6.77

Groups of products:

[1] Food and beverages
[2] Pharmaceutical products
[3] Clothes and shoes
[4] Leather products
[5] Furniture, textiles for the house
[6] Electrical household appliances
[7] Radio, tv, personal computers
[8] Photographic goods
[9] Small products for the house
[10] Ironmonger's shop
[11] Cosmetics and personal goods
[12] Stationery, books, newspapers
[13] CD, tapes, musical instruments
[14] Toys, games, sport, camping
[15] Other products

Figure 1

The share of trade margins in the branches of the Italian trade sector - year 1992

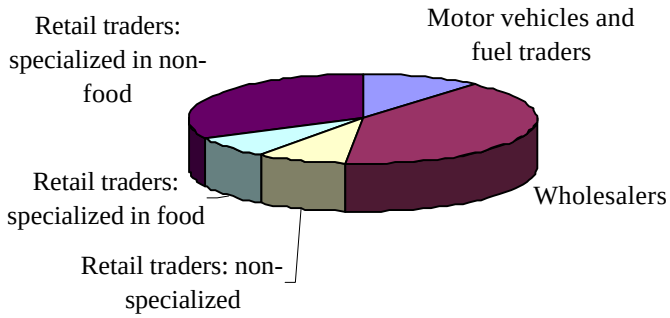


Figure 2

The pro capite trade margin by branches of trade sector

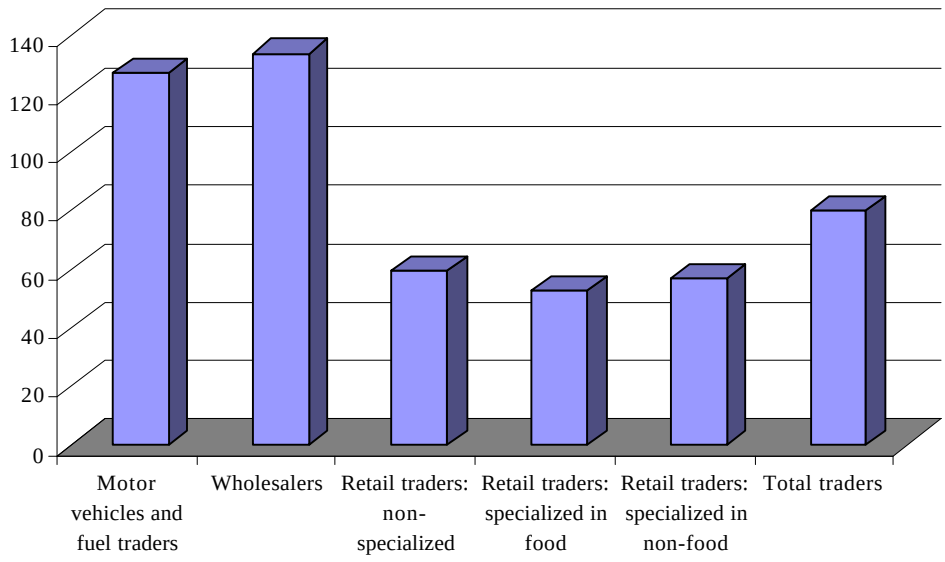


Figure 3

The percentage of trade margin on the purchases by branches of the tarde sector

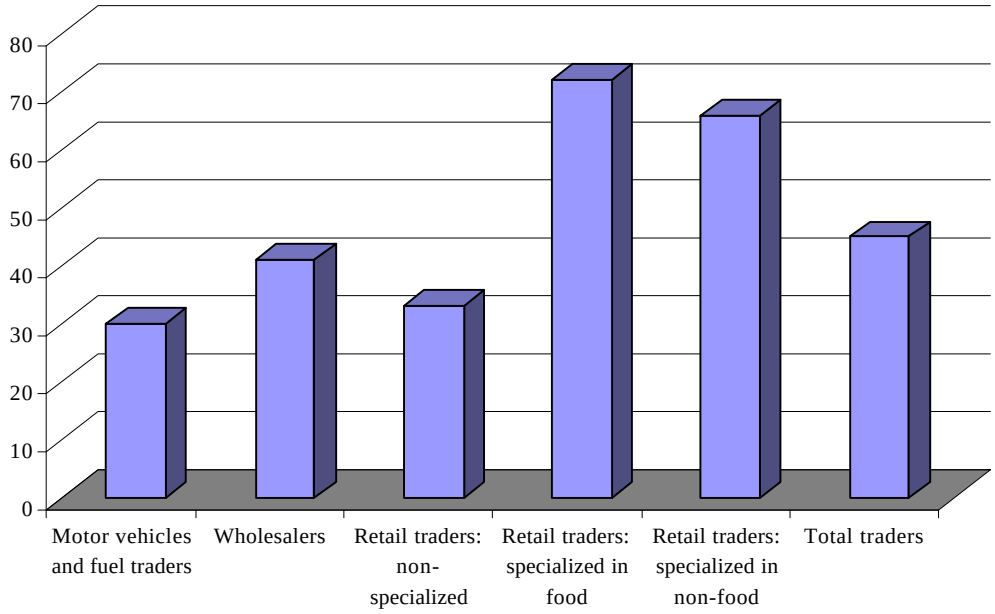
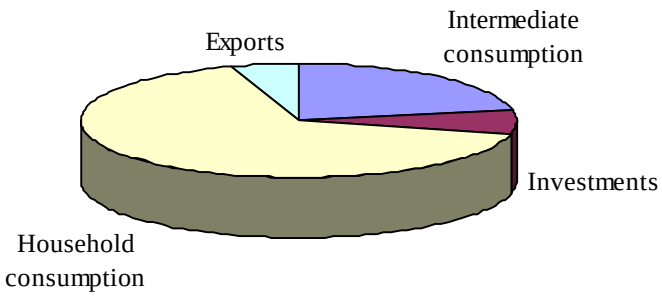


Figure 4

The trade margins by uses - 1992



ANNEX 1

BRANCHES OF ITALIAN NATIONAL ACCOUNT THAT PRODUCE TRADABLE GOODS

1. Agriculture, market gardening and related service activities
2. Animals farms
3. Forestry
4. Fishing, fish farms; service activities incidental to fishing
5. Mining of coal and lignite; extraction of peat
6. Extraction of crude petroleum and natural gas; service activities incidental to oil and gas; mining of uranium and thorium ores (without activities)
7. Mining of metal ores
8. Mining of stone, sand and clay
9. Mining of ores for manufacture of chemicals
10. Tinning and manufacture of meat
11. Tinning and manufacture of fish
12. Tinning and manufacture of vegetables
13. Milk and dairy products
14. Grain mill products, starches and starch products
15. Food for animals
16. Manufacture of tobacco products
17. Manufacture of beverages
18. Texture and finishing of textiles
19. Manufacture of textiles
20. Dressing of leather; dressing fur
21. Tanning and manufacture of leather, manufacture of luggage, handbags,
22. Manufacture of footwear
23. Manufacture of wood, products of wood, except furniture
24. Manufacture of paper and papers products
25. Publishing, printing and reproduction of recorded media
26. Manufacture of coke, refined petroleum products and nuclear fuel
27. Manufacture of primary chemical product
28. Manufacture of paints, printing inks and other chemical products
29. Manufacture of chemical products, pharmaceutical products, soaps, polishes and sanitation goods
30. Manufacture of synthetic and artificial fibres
31. Manufacture of rubber products
32. Manufacture of plastics products
33. Manufacture of glass and glasswork
34. Manufacture of baked clay and building material
35. Production of lime, cement and gypsum, manufacture of products in lime cement and gypsum
36. Cutting, throwing and finish of stone
37. Production of iron ore and steel
38. Manufacture of metal material for buildings
39. Manufacture of metal products
40. Manufacture of mechanical machinery
41. Manufacture of agriculture machinery
42. Manufacture of domestic devices
43. Manufacture of office, accounting and computing machinery
44. Manufacture of motors, generators and transformers
45. Manufacture of electrical devices
46. Manufacture of fuses and electronic components
47. Manufacture of transmitter devices
48. Manufacture of receiving devices
49. Manufacture of medical, precision instruments
50. Manufacture of optical instruments, photograph equipment, watches and clocks
51. Manufacture of motor vehicles, trailers and semitrailers
52. Manufacture of motorcycles and bicycles
53. Building and repairing of ships
54. Building of locomotives and rolling-stock
55. Building of aircraft and space-vehicles
56. Manufacture of furniture and musical instruments
57. Jewellery
58. Manufacture of toys and sports products
59. Manufacturing n.e.c.

…

88. Computer programming and software industry

…

99. Recreational and cultural services

…

ANNEX 2

Br.	WHOLESALE TRADE	RETAIL TRADE
1	51211 - 51212p - 51220 - 51250 - 51310p - 51350p	52111p - 52112p - 52113p - 52114p - 52210p - 52610p
2	51212p - 51231 - 51232	52221p - 52222p - 52610p
3		52111p - 52112p
4		52111p - 52112p - 52230p - 52487p
5	51512p - 51532p	
6		
7	51522p	
8	51523p - 51524p - 51532p	52260p
9	51550p	52466p
10	51321 - 51322 - 51322 - 51393p	52111p - 52112p - 52113p - 52114p - 52115p - 52221p - 52222p - 52272
11	51332 - 51361 - 51362 - 51371 - 51372 - 51381 - 51382p - 51391 - 51392 - 51393p - 51394	52111p - 52112p - 52113p - 52114p - 52115p - 52230p - 52241p - 52242p - 52273 - 52274p
12	51310p	52111p - 52112p - 52113p - 52114p - 52115p - 52210p -52242p
13	51212p - 51331	52111p - 52112p - 52113p - 52114p - 52115p - 52242p - 52271
14	51393p	52111p - 52112p - 52113p - 52114p - 52241p - 52242p
15		52111p - 52112p - 52113p - 52114p - 52115p
16	51350p -51382p	52260p - 52632p
17	51341 - 51342 - 51382p	52111p - 52112p - 52113p - 52114p - 52250 - 52274p - 52621 - 52632p - 52633 - 52635p
18	51561	52111p - 52112p - 52121p - 52414p - 52424p - 52489p - 52627p - 52631p - 52635p
19	51411 - 51412 - 51413 - 51414 - 51423	52111p - 52112p - 52121p - 52122p - 52411 - 52412 - 52413 - 52414p - 52422p - 52423p - 52489p - 52503p - 52610p - 52622 - 52627p - 52631p - 52634 - 52635p
20	51242 - 51421 - 51422	52111p - 52121p - 52122p - 52421 - 52422p - 52423p - 52424p - 52425 - 52426p - 52489p - 52503p - 52610p - 52623 - 52626p - 52627p - 52631p - 52740p
21	51241 - 51478	52111p - 52121p - 52122p - 52426p - 52432 - 52489p - 52610p - 52624p - 52626p - 52627p - 52635p - 52740p
22	51424 - 51425	52111p - 52112p - 52113p - 52121p - 52122p - 52431 - 52489p - 52610p - 52624p - 52626p - 52627p - 52635p - 52710 - 52740p
23	51479p - 51531 - 51535	52111p - 52112p - 52121p - 52122p - 52441p - 52444p - 52461p - 52502 - 52610p - 52626p - 52627p - 52635p - 52740p
24	51443 - 51445 - 51472	52111p - 52112p - 52121p - 52122p - 52461p - 52473p - 52489p - 52501p - 52610p - 52626p - 52627p - 52635p
25	50500p - 51433 - 51473	52111p - 52112p - 52113p - 52121p - 52122p - 52453 - 52471p - 52472p - 52473p - 52489p - 52501p - 52610p - 52626p - 52627p - 52631p - 52635p
26	50403 - 50500p - 51511 - 51512p - 51513	52112p - 52113p - 52121p - 52487p - 52489p
27	51550p	52489p - 52627p
28	50403 - 51534 - 51550p	52111p - 52112p - 52121p - 52122p - 52461p - 52462 - 52466p - 52473p - 52489p - 52610p - 52627p - 52635p
29	50403 - 51444 - 51450 - 51461 - 51462	52111p - 52112p - 52113p - 52121p - 52122p - 52310p - 52320p - 52331 - 52332 - 52489p - 52627p - 52635p

30	51550p	52121p - 52122p - 52489p - 52627p - 52635p
31	50403 - 51550p	52111p -0 52112p - 52121p - 52122p - 52444p - 52489p - 52610p - 52627p - 52632p - 52635p
32	50403	52111p - 52121p - 52122p - 52442p - 52444p - 52461p - 52489p - 52610p - 52627p - 52631p - 52635p
33	50403 - 51441	52111p - 52121p - 52122p - 52442p - 52443p - 52464p - 52486p - 52489p - 52504p - 52610p - 52627p - 52635p
34	50403 - 51334 - 51533	52121p - 52422p - 52461p - 52463 - 52464p - 52489p - 52627p - 52635p
35		52461p - 52464p - 52486p - 52489p - 52504p - 52627p - 52635p
36		52489p - 52627p - 52635p
37	50403 - 51521p - 51522p - 51523p - 51524p - 51571p - 51572p - 51573p	52461p - 52489p - 52627p - 52635p
38	51541 - 51532p	52461p - 52489p - 52627p - 52635p
39	50403 - 51521p - 51522p - 51523p - 51524p - 51543 - 51532p	52121p -52461p - 52489p - 52627p - 52635p
40	50403 - 51562 - 51610 - 51620 - 51630 - 51700p	52455 - 52465
41	51660	52466p
42	51431 - 51436p - 51479p	52121p - 52443p - 52445 - 52451 - 52610p - 52631p - 52720 - 52740p
43	51641 - 51642	52481p - 52610p
44	51700p	
45	50403 - 51434p - 51435 - 51436p - 51550p	52121p - 52740p
46	51434p	52461p - 52610p
47	51650p	52610p -
48	50403 - 51432	52121p - 52452p - 52610p - 52740p
49	51650p	52121p - 52310p - 52320p - 52610p
50	50100p - 51474 - 51475p	52482 - 52483p - 52610p - 52730
51	50100p - 50300 - 50403	
52	50100p - 50401 - 50402 - 50403	
53	51650p	52488
54	51650p	
55	51650p	
56	51471 - 51479p	52441p - 52454 - 52625 - 52626p
57	51475p	52483p - 52610p
58	50500p - 51476 - 51477 - 51700p	52121p - 52260p - 52310p - 52473p - 52484 - 52485 - 52610p
59	51571p - 51572p - 51573p	
…		
88		52452p - 52471p - 52472p - 52473p - 52481p
…		
99		52486p - 52504p