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Mini-presentation on turnover/output in France

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1) Definition of service being collected

. An activity mixing trade and services

An opening statement: we should bear in mind that for France, as for all European countries up until 2006, statistical observations were made according to specific national classifications (the French classification of activities, called NAF Rev1, is derived from the European classification system NACE Rev1, which itself is derived from the international classification system ISIC Rev 3) slightly different from the subsequent version of the classification ISIC Rev 4. Fortunately, the contours of wholesale trade as a group and its main components have only been marginally modified by this change of classifications (for France, around 800 million Euro turnover made from oenological treatment have been reclassified as wholesale drinks trade in agribusiness, which represents 0.1% of the sector's total turnover). For the framework data and commentary on the methods, information is provided in the old classification which is directly transposed to the new classification (thus division 51 according to ISIC Rev 3 becomes division 46 in ISIC Rev 4).

The main activity of wholesale trade is clearly defined by the international classification. Thus, ISIC Rev 4 retains the following definition for division 46:

“This division includes wholesale trade on own account or on a fee or contract basis (commission trade) related to domestic wholesale trade as well as international wholesale trade (import/export).

Wholesale is the resale (sale without transformation) of new and used goods to retailers, business-to-business trade, such as to industrial, commercial, institutional or professional users, or resale to other wholesalers, or involves acting as an agent or broker in buying goods for, or selling goods to, such persons or companies. The principal types of businesses included are merchant wholesalers, i.e. wholesalers who take title to the goods they sell, such as wholesale merchants or jobbers, industrial distributors, exporters, importers, and cooperative buying associations, sales branches and sales offices (but not retail stores) that are maintained by manufacturing or mining units apart from their plants or mines for the purpose of marketing their products and that do not merely take orders to be filled by direct shipments from the plants or mines. Also included are merchandise and commodity brokers, commission merchants and agents and assemblers, buyers and cooperative associations engaged in the marketing of farm products.

Wholesalers frequently physically assemble, sort and grade goods in large lots, break bulk, repack and redistribute in smaller lots, for example pharmaceuticals; store, refrigerate, deliver and install goods, engage in sales promotion for their customers and label design.

This division excludes the wholesale of motor vehicles, caravans and motorcycles, as well as motor vehicle accessories (see division 45), the renting and leasing of goods (see division 77) and the packing of solid goods and bottling of liquid or gaseous goods, including blending and filtering, for third parties (see class 8292).”

In practice, competition between wholesalers and between the different distribution channels encourages businesses to develop complementary services of a high added value; these are sometimes difficult to separate from simple business services. Thus, the services provided by the wholesaler are mainly commercial but also include common associated services.

2) Unit of measurement to be collected.

Services are charged in Euros which is therefore the unit of measurement. In fact, **turnover excluding VAT is collected by grouping a specific type of service provision. This mainly deals with selling merchandise or commissions.** In theory, brokers only earn commissions and other

wholesalers make sales where purchases must be deducted in order to calculate trade margins. In practice, some enterprises work as brokers as well as wholesalers who own resold goods. Finally, the business service may be considered to include additional services.

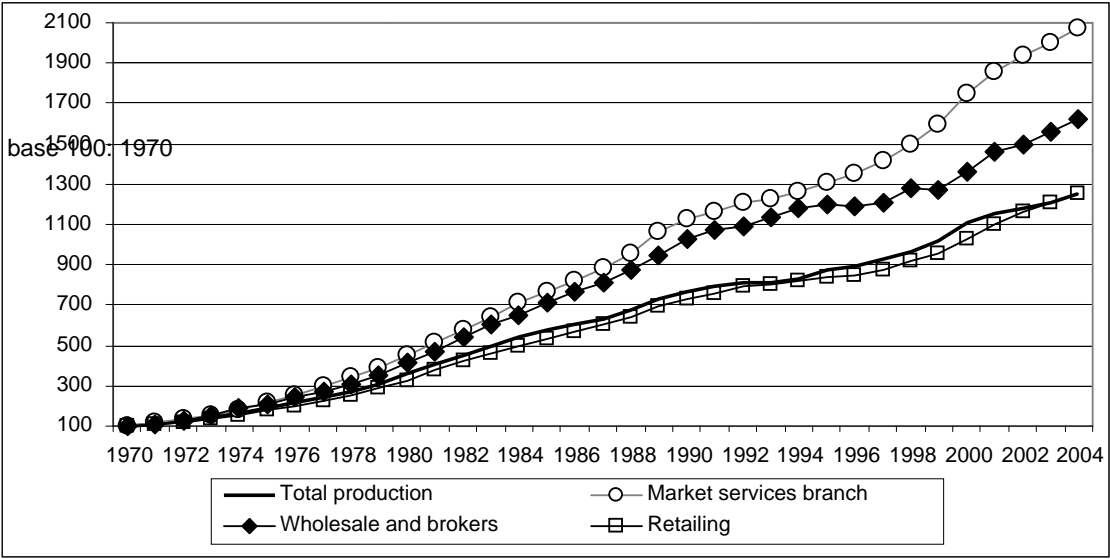
3) Market conditions and constraints

. An activity with strong growth

In 2007, the wholesale sector represented 130,000 enterprises in France which make close to 600 billion Euro turnover and employ 1.1 million people. This activity contributes **4% to the total added value of the economy** (this contribution has been notably stable since 1970 when it declined due to retailing, cf. bibliography [1]). Altogether it represents around 11% of enterprises and workforce for the same sector in the 27 member state European Union ([2]).

This activity has been particularly dynamic over the past thirty years: its output has completely evolved in phase with the general economic cycle of activity which affects the whole economy but, as with the rest of market services, it has grown faster than the rest of the economy and retailing. This dynamism has been particularly notable in purchasing centres and wholesalers of non-food stuffs. This relative dynamic growth of wholesale trade can be linked to the diversification of the services provided and its involvement in international trade; its growth can be compared to market services which also moved upwards over this period.

Figure 1 Evolution of the output of business sectors in value



Source: INSEE – National sector accounts.

. Strong diversification of services

In effect, businesses have developed varied services for their suppliers or clients. Added to the production of goods which also exists in certain sectors (for example in the textile-clothing industry), these services represent almost a third of the sector's output; for all wholesale trade in 2005 with a total of 152 billion Euros of total output, **the provision of services represented 24% of output and the production of goods 8%**, with the rest corresponding to trade margin. This diversification has been stable since the first years of this decade, and progressed a lot up to the mid-90s peaking with more than 40% for non-commercial output and subsequently decreasing.

The basic service is resale to professionals, that is excluding households. In fact, wholesalers have developed services both up (towards their suppliers) and down the distribution channels (towards their clients).

First of all, they have long provided services traditionally linked to resale towards businesses: logistics (warehousing and transport, for example with the ripening of fruit, or aging of cheese and wine); one stop shopping, and possibly financing clients' stock for delays in payment.

Next, the wholesalers develop services towards the clients: technical advice; sourcing and covering risks; taking charge of a complete operation (such as, telephone lines from installation to material); staff training and maintenance of installed equipment, etc.

Lastly, the wholesalers can also provide additional services for their suppliers: estimates and installation of equipment, fitting, repair, restoration and after-sales service, etc. In particular, the wholesaler can help the producer in the creation and innovation of new products (for example, "bifidus" yoghurt imported into France by a wholesaler for the benefit of the dairy industry) [3]. It is likely that only part of these services is invoiced in a different way by the wholesalers and that the other part is included in the wholesaler's overall services.

■ A sector of activity looking abroad

According to the latest detailed results from the annual survey of businesses, in 2005 the 129,500 enterprises involved in wholesale trade activities made a total turnover excluding tax of 595 billion Euros and employed 1.1 million people on a full-time basis ([4]).

This sector plays a crucial role in foreign trade through both importing and exporting. Its strong growth is partly linked to that of international trade.

One enterprise in three exported in 2005. Exports represent 12.7% of wholesale trade turnover, some 75 Billion Euro. The sector with the most significant turnover from exports is wholesale trade in sugar, chocolate and confectionery (47.9%). Then there are three more sectors where more than 40% of turnover is made from exports: brokers in agricultural raw materials (45.7%), brokers in fuels, metals, minerals and chemical products (43.7%) and wholesale trade in hides and leather (42.4%).

Furthermore, 30% of wholesale trade enterprises import. Imports represent 24% of all purchases of merchandise, some 85 billion Euros. The sectors where imports represent more than half of merchandise purchases are the following: other specialised wholesale trade (63.6% of purchases), wholesale footwear trade (57.4%), machine-tool wholesale trade (55.2%), that specialising in the sale of machinery for the textile and clothing industry (55.1%) and lastly, wholesale trade in electronic parts and other equipment (50.5%).

■ A diverse group

This mean data gives an overall image of wholesale trade; yet it groups sectors together which differ not only in the number and scale of enterprises which form them but also in their accounting characteristics.

Table 1 Heterogeneity of wholesale trade

	Purchasing centres	Other brokers	Wholesale trade excluding brokers	All wholesale trade
ns : non-significant data				
<i>Source : INSEE, EAE Commerce 2005</i>				
Number of businesses	958	29,993	98,568	129,519
Average turnover per business (in thousands of euros)	85,818	696	5,008	4,591
Average number of employees per business	30.1	2.4	10.1	8.5
Added value per employee (in thousands of euros)	148.9	65.2	65.9	68.1
Trade margin (%)	ns	ns	24.1	19.7
Share of self-employed among employees (%)	1.7	35.9	5.8	7.7

Within wholesale trade, the **brokers** (“wholesale on a fee or contract basis”) form a very specific sub-group insofar as they are paid on commission, which is not comparable to a turnover from resale. These are, in the majority, sole traders (57.4 %).

Within the brokers, **purchasing centres** are also an exception: these are very large businesses which generate 79.4% of turnover in the business brokers sector and 13% of the total turnover of wholesale trade.

Lastly, within wholesale trade excluding brokers, there are **two large categories of businesses**: on the one hand the marketing subsidiaries of large French or foreign industrial groups and other units and small businesses which are independent or structured in non-industrial groups on the other; the first category is affected by frequent restructuring (mergers, takeovers, splits, etc.), which may interfere with the study of annual evolution in these sectors.

In total, wholesale trade as a group is a sector where there is a high concentration of enterprises : 20% of businesses account for 80% of the sector’s turnover which is a much higher concentration than that seen in retailing. There is also high financial concentration: 10% of legal entities are organised into groups of companies which control 65% of the wage-earning workforce and the total added value of the sector.

The sector’s high level of heterogeneity leads us to adopt different questionnaires for the statistical surveys according to the large categories of businesses and their activity.

4) Standard classification structure and product detail/levels

The official French classification system is identical to the European classification called CPA (“Classification of Products by Activity”), which in turn closely fits into the UN’s international classification system called CPC.

In practice, **the collection classification used to describe products in the annual structural survey is roughly two times more detailed than the lone CPA level.** Thus, in old classification (division 51 of Naf rev1), the CPA included 105 positions whereas the collection classification distinguishes 215, almost all of which fit into the CPA level. A query example is given in § 7.

5) Evaluation of standard vs. definition and market conditions

The adaptation of the detailed collection classification is made according to the evolution of professions and markets, therefore studying the turnover and the production must take market conditions into account. **Studying turnover according to a more detailed classification than the CPA is crucial as the dynamic of markets can be very different according to the products being sold (cf. [6]).**

6) National accounts concepts and measurement issues for the area related to GDP measurement

Wholesale trade is dealt with in a very particular way by national accounts. Firstly, the concept of output is less immediate than for other activities. Then, the national accounts take commercial activity of a wholesale or retail nature into account according to a specific logic: thus a specific supply and use balances system (acronym ERE in French). Lastly, the French system also includes detailed accounts by sector which allow for an end approach to different areas of wholesale trade as well as an estimate of the volume of trade margins (for more details see [5]).

. Output defined mainly by margins

First of all, in order to measure commercial activity one should think in terms of margins. Commercial output corresponds to a trade margin, that is, the difference between merchandise sales and the purchase cost of sold merchandise, this is supposed to represent the business service. More specifically, according to the European System of Accounts (ESA) 1995 §3.60 : "A trade margin is the difference between the actual or imputed price realised on a good purchased for resale and the price that would have to be paid by the distributor to replace the good at the time it is sold or otherwise disposed of".

For certain activities, the trader provides a resale operation on behalf of a third party without becoming the owner of the merchandise, he simply earns a commission. This service is not assimilated into a trade margin but is treated as a provision of services.

Output is valued using the "basic price" which means excluding specific taxes charged after the manufacture of products (such as taxes on oil products or on alcohol and tobacco for example) and includes subsidies on products received (such as restitutions on cereal exports for example).

. A necessarily transversal approach to all activities

In general, commercial activity, that is resale, can be carried out by enterprises in all activity sectors; a manufacturer wishing to complete his range of products may also act as a wholesaler of certain goods which it buys to resell to professionals. Based on data studied by business in order to measure total commercial activity, on the one hand you must remove the non-commercial activity of commercial businesses and on the other recoup the commercial activity of non-commercial businesses. In doing so one can estimate a total trade margin which is then taken into account in two ways (this margin is around 260 billion Euros for 2005 of which 220 comes from commercial businesses).

Firstly, this amount is shared between the sixty or so supply and use balances (ERE) of commercialised industrial or agricultural products. The margins per product are thus the difference in value between the ex-factory price (or ex-customs price) given to production (or imports) of the cost of resources and the purchase price given to each use. Those in charge of developing these balances thus propose a first valuation of trade margins in volume by applying a price index adapted to the product's market.

Subsequently, an aggregate supply and use balance is established in an interactive manner for each of the major elements of trade: automobile trade and repair, wholesale trade, retail trade. These balances are very specific in a conventional way: business output has for a counterpart a negative

resource of trade margin. Thus, output appears, but there are no corresponding uses to avoid double accounts on trade margins. The interaction corresponds to arbitrations to obtain trade margins in coherent volumes. For 2005, the trade margin for wholesale trade is around 100 billion Euros.

In order to be comprehensive it must be specified that, after creating national accounts bases from 1995 to 2000, one has observed a surplus of service provision of which those which correspond to business activities were studied and more detailed EREs were introduced within wholesale trade:

- . purchasing centres services,
- . international trade services,
- . commission on sales services,
- . commercial cooperation service (classified as "back margins"), done by retailers but which is based on a wholesale logic.

In doing so, it can be noted that, in addition to the trade margin, the output of the wholesale trade branch includes specific business services.

. Detailed accounts per sector enabling the volume of trade margins to be estimated

One of the unique features of the French national accounts is the existence of detailed accounts per sector (sometimes classified as satellite accounts) in order to meet analysis requirements at levels closer to the concerns of governing bodies and professionals. These accounts particularly rely on an approach by sector of activity, which means grouping all businesses with the same main activity. These accounts are published annually (cf. [6]). Thus, business accounts for the 61 activity classes of wholesale trade of the Naf Rev 1 are established, with a 4 Naf position level but these are only disseminated at the level of a group of activities which is 3 positions.

Within this context, for each elementary activity (4 positions), one proceeds to a volume-price share on sales of activity sub-sectors. Then price evolution is estimated using different indexes (purchases or sales) allowing one to explain annual developments in sales through the share of price movements and a residual development "in volume" (cf. [6]).

In a more precise way, to calculate volume one deflate sales in value to an end level using the 61 Naf classes to four positions of wholesale trade, by price indexes estimated through balancing elementary indexes: for each end product, one takes either the industrial price index (for intermediate goods) or a consumer price index (for consumer goods) and these are balanced by distributing sales from this end sector in the annual structural survey. In total, around 150 elementary price indexes are used for the 60 or so classes of commercial activity in wholesale trade.

In addition, profit margins are also calculated to a 4 position level within the context of creating detailed accounts per sector; one assumes therefore that the profit margin of an end sector is applied in the same way to all sold products (this hypothesis remains valid even at a detailed level) Then, evolution of the trade margin with a breakdown between volume and price is calculated. In France, lacking a direct measurement of the price of commercial services one makes the conventional hypothesis that for each elementary activity (for the 61 classes of wholesale trade), the volume of the output of the trade margin develops like the volume of sales; this hypothesis assumes that the volume of commercial services grows at the same rate as the volume of sales, which ignores possible variations in the quality of commercial services. Thus, the price index of the trade margin can be seen as the product of the evolution of the trade profit margin and the price index of turnover on merchandise sales (with both the latter being observed). The principle of this method is explained in appendix 1 (a continuation of [5]).

This calculation method is unique to France, it is described in the theoretical framework of the European System of Accounts ESA 1995 (cf. [7] § 10.38 "The most important flows ... are those whose value at current prices is obtained as a difference between the values of two flows of goods. This arises in the case of trade margins, whose value at current prices is defined as the difference between the actual or imputed price realised on a good purchased for resale by the wholesale and retail trades and the price that would have to be paid by the distributor to replace the good at the time it was sold or otherwise disposed of. By one method, estimates of trade margins at constant prices can therefore also be made by difference, by subtracting the constant-price value of goods bought for resale from the constant-price value of goods resold by these trades. An alternative method of

measurement would be to extrapolate the trade margins of the base year either by the volume of sales or by the volume of purchases made by the wholesale and retail trades. To be correct, this alternative has to take into account the fact that trade margins vary amongst different products and uses. This is explicitly acknowledged in the supply and use tables"). This alternative method used in France is considered a type "B" by the Eurostat manual on national accounts; it is deemed acceptable insofar as the calculations are made at the most precise level possible in taking into account the fact that trade margins vary at an end level according to the products and uses.

The first method classified as type "A" by Eurostat is that of double deflation on sales and purchases. This method is not used in France. It entails having very precise price indexes on wholesalers' sales and purchases (in particular sale prices should take into account the variations of quality of the commercial service); lacking such indexes, the French experience shows that the latter method is not very stable and may lead to more volatile results (cf. [8]).

7) Turnover/output data method(s) and criteria for choosing various output methods.

For annual data, the production in value is studied closely by **the annual survey of enterprises**. This is a sample survey: in 2005, 25,000 units were questioned with a sampling ratio varying from 38 for self-employed traders of certain sectors to 1 for the exhaustive stratum with more than 20 employees.

One of the fundamental parts of the questionnaire deals with the measurement of the production in value using a breakdown of annual turnover. Thus for the 2006/2005 survey (carried out in 2006 on the 2005 financial year) there were 28 different types of questionnaire according to the detailed sectors which had about 10 pages listing end activities adapted to each sector.

This list distinguishes at least the following large categories:

- . *Production activity*
- ...
- . *Commercial activity: products resold*
 - . *Wholesale sales (to retailers and other professional users)*
 - ...
 - . *Retail sales (to individuals)*
 - ...
- . *Brokering activity (commissions earned)*
- ...
- . *Other services and activities*
- ...

Appendix 2 contains a copy of this part of the questionnaire for the activity "Wholesale trade in electro-domestic and radio-television appliances" (51.4F in NAF rev 1). This table has some 30 lines and asks particularly about the associated repair activities; it includes 8 items for products linked to the main activity (here NACE 51.43), as the CPA only includes 5 levels; and in addition it asks about neighbouring associated activities; lastly, it makes a clear distinction between merchandise sales and simple commissions.

In 2005, this sector represented 1,700 enterprises, 17,000 employees and a turnover of 15 billion Euros of which almost 97% came from wholesale trade illustrating the relative specialisation of wholesale companies. The trade margin is in the region of 20%; and went from 20.4% in 2004 to 21.1% in 2005.

For short-term developments, we use the turnover tax returns which provide monthly developments for the 61 sub-sectors of wholesale trade activity; the regular monthly publication of results only

includes about 10 of the wholesale trade components. These VAT tax returns provide an approximate idea of turnover but this is enough to monitor progress; experience shows that there is most often good coherence between temporary profiles of annual and infra-annual sources on turnover.

8) Comparability of turnover/output data with price index practices

The data gathered to monitor output in value is at a quite detailed level which enables an approach with consumer or production price indexes which are always available at very detailed levels. The difficulty arises from the rough estimates required in order to approximate price indexes which are not directly studied.

9) Summary

Wholesale trade (division 46 of ISIC rev 4) is an important industry whose output has been expanding strongly. Its activity can easily be measured using its turnover, monitored monthly on an aggregate basis and annually on a detailed basis. In order to properly measure the value of output, the surveys should be used to see if it is a case of resale or simple commissions.

As is the case for all commercial activities, its accounting into national accounts is unique. The difficulty in measuring the volume of business output is that there is no direct measurement of the price of business services; in France, price indexes are estimated on the basis of the profit margin and sale price. This system remains imperfect but can be improved in future by using a specific survey; thus, question on trade margins per product would allow us to get better results; we hope to be able to launch such a survey which could benefit from similar experiences in other countries in the near future.

10) References

- [1] "Le Commerce en France", Edition 2007, INSEE References
- [2] "European business - Facts and figures" Chapter 17 Wholesale trade, Eurostat, 2007
- [3] "Les services: levier du développement des grossistes" J. Nefussi, in 3Le commerce en France, Edition 2008, INSEE References, to be published.
- [4] "Les entreprises du commerce de gros en 2005, résultats de l'enquête annuelle d'entreprise" INSEE Results, Économie n°31, 2007
- [5] "Les activités de comerse" INSEE, note on the Base 2000 of national accounts, n° 12, March 2008.
- [6] "La situation du commerce en 2007" Report established by the meeting of 25 June 2008 of the National Commercial Accounts Commission, INSEE 2008
- [7] "SEC 1995, Système Européen des Comptes", Eurostat, 1996
- [8] "Le partage volume-prix", INSEE, note on the Base 2000 of national accounts, n°7, July 2007
- [9] "Au cœur des échanges: le commerce de gros", INSEE Methods n° 107, 2004.
- [10] "Le commerce de gros", Que sais-je, P. Dugot, PUF, 2000
- [11] www.insee.fr

APPENDIX 1

The price of the trade margin or of “commercial service”

As a service provider, commerce produces a trade margin in return for a “commercial service”. In order to breakdown the development of trade margin production in a development in volume and a development in price, one encounters a double difficulty; neither the volume nor the price of the business service is directly studied.

The development in value of the production of trade margin is the product of a development in volume by a development in price; the definition of the price index of trade margin production (commercial service) is below.

- On the level of each elementary activity, the development in value of commercial service is measured by definition by:

$$a) \frac{marg e1}{marg e0} = \frac{r1CA1}{r0CA0} = \frac{r1}{r0} \times \frac{CA1}{CA0}$$

where r is the trade margin of period i (here 0 or 1) and CA i the turnover on merchandise sales.

We can breakdown this development into a development in price and a development in volume :

$$\frac{marg e1}{marg e0} = \frac{s1}{s0} \times \frac{Q1}{Q0} \text{ where } s \text{ is the price of the commercial service and } Q \text{ is the volume of commercial service production.}$$

Yet the development of turnover is itself analysed as the product of a development in volume by a development in price.

$$b) \frac{CA1}{CA0} = \frac{P1}{P0} \times \frac{V1}{V0} \text{ where } P \text{ stands for the sale price of merchandise, } V \text{ is the turnover volume in merchandise sales.}$$

By carrying b) forward into a), we get :

$$c) \frac{marg e1}{marg e0} = \frac{r1}{r0} \times \frac{P1}{P0} \times \frac{V1}{V0}$$

We make the hypothesis that for each elementary activity the volume of trade margin production Q develops in line with turnover V and can transform c) into :

$$d) \frac{marg e1}{marg e0} = \frac{r1}{r0} \times \frac{P1}{P0} \times \frac{Q1}{Q0}$$

therefore the price index of the trade margin:

$$\frac{s1}{s0} = \frac{r1}{r0} \times \frac{P1}{P0}$$

In other words, the product of the development of the trade profit margin and the price index of turnover on merchandise sales.

APPENDIX 2

Turnover breakdown table of the annual survey for 51.4F

Type 05e20		AMOUNT	
		in euros	or in %
PRODUCTION ACTIVITY			
	Manufacture of electro-domestic appliances.....	297AO0	.....
	Manufacture of non-electrical domestic appliances.....	297CO0	.....
	Other activities, please specify:.....	.....	.....
COMMERCIAL ACTIVITY: IN-STATE RESALE OF PRODUCTS			
Wholesale sales - (meaning to traders and other professional users)			
	Electrical and mixed kitchen domestic appliances, electro-domestic appliances	514FA1	.....
	Electrical heating appliances.....	514FG1	.....
	Lightbulbs, tubes and portable lighting.....	514FB1	.....
	Light fittings.....	514FC1	.....
	Electronic domestic appliances (radios, car radios, televisions, stereo systems, VCRs, camcorders, etc.) and spare parts	514FE1	.....
	Records, compact discs, videocassettes (recorded or not), DVDs.....	514FF1	.....
	Telephone equipment	514FH1	.....
	Other electrical equipment (except domestic appliances).....	514FD1	.....
	Electrical equipment such as telephones and transformers.....	518LO1	.....
	Electronic equipment and parts.....	518JO1	.....
	Office machines and furniture.....	518HO1	.....
	Computer equipment.....	518GO1	.....
	Non-electrical domestic appliances (heating, kitchen).....	514SL1	.....
	Hardware.....	515HO1	.....
	Varied equipment for business and services commerce (and vending machines).....	518NO1	.....
	Varied industrial equipment.....	518MO1	.....
	Other products, please specify:.....	.....	.....
Retail sales - (meaning to individuals)			
	Electro-domestic and radio/television appliances (and sewing machines and irons)	524LO1	.....
	Other products, please specify:.....	.....	.....
ACTIVITY AS A BROKER: EARNING COMMISSIONS (1)			
	Please specify on which products:.....	.....	.....
OTHER SERVICES AND ACTIVITIES (2)			
	Repair of electro-domestic equipment.....	527DO3	.....
	Repair of television, radio and hi-fi appliances.....	527CO3	.....
	Repair of electrical equipment.....	311CO0	.....
	Repair of telephone equipment.....	322BO0	.....
	End-of-year returns, invoicing suppliers for services	511ZC8	.....
	Other activities, please specify:.....	.....	.....
TOTAL (should be the same as the NET turnover amount registered in chapter-III-2 (accounting data) or V-1 -(income statement)			100.0%

(1) Please indicate here account 70 commissions broken down according to the products they relate to .

(2)The amount of spare parts should not be included in this table but rather in the category of products resold in the state.