PROGRESS REPORT ON THE DEVELOPMENT

OF BUSINESS PRICE INDEXES

IN FRANCE

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At the sixth meeting of the Voorburg Group in Helsinki, France had presented two papers on price indexes for business services. One of them dealt mostly with a classification of services which might be used as a base for treating many problems of change of products (quality change) [1]. The second paper presented some practical aspects of the preparation of the index, i.e. all the basic assumptions and all the operations to be dealt with prior to start a full scale data collection and calculation of the indexes [2]. At the same meeting, Canada had presented a paper describing the first operations made in the framework of the establishment of a price index for engeneering services [3]. It was pointed out that both practical papers, by Canada and France, showed very similar procedures in the preparation of the indexes. It could also be noted that these procedures were, in fact, very close the ones used, in many countries, for the development of price indexes of manufactured goods (at least, this is the case for France).

During the one year period since the sixth meeting, some further work was carried out in France, not as much as would have been hoped, since it was not possible to obtain supplementary personnel for the purpose. But, whatever quantity of work has been achieved, it is thought that it would be useful to provide the readers with some findings in a field which has not yet been very much explored. Such findings may seem to lack of originality to some readers, but they have to consider that they are the outcome of long discussions geared at convincing the professionals of the services studied ; they are now ready to use these findings in collaboration with the statisticians. Some major problems are still unsolved. One of them is presented at the end of the paper (how to make a price index for services which are not provided permanently in a rather similar way ?) and the author is eager to hear the advices of those who would be ready to provide them, or he would be pleased to know that the problem has been solved satisfactorily in one or several countries.

After a brief description of the (quasi) common approach by Canada and France, a rapid presentation will be made of the status of development of the price indexes for the the four groups of services presently studied in France, namely security services, car rental services, cleaning services and market study services.

1. The procedure for the preparation of the index

The aim of the preparation of the index is to arrive at a sample of transactions or contracts, the price collection of which, carried out regularly, permits the calculation of price indexes for the group of services under study or for some sub-groups of this group.

It should be pointed out that generally when price lists exist, as to business services, the corresponding prices serve mostly as a base for further negotiations of contracts and, eventually, the movement of list prices are not identical to the movement of actual prices. This remark makes it necessary, in many cases, to measure prices for actual transactions or contracts and, therefore, such entities are looked for when sampling is carried out. However, there are cases where list prices are applied as such and, therefore, data collection may be (more easily) geared toward them ; this happens when households are also concerned by the so-called business service or when small enterprises make a very rare use of a rather standardised services (the standardisation implies that list prices can be established ; the rarity of use implies that there is no negotiation of contract and the fact that the

purchasing enterprise is small means that it has no levy for obtaining more than usual deductions, if any).

The first phase of the preparation consists in the establishment of a classification of transactions or contracts (for reasons presented hereafter, it will be called market classification). Before selecting representative products in representative enterprises, the statistical theory of price indexes show that there is a need for stratification into rather homogeneous groups of contracts or transactions, the homogeneity being defined by reference to price changes. One of the factor which should be retained for this operation should be the classification of the company which provides the service : in many fields, big companies are leaders for prices ; in other cases, small companies perform very specific and specialised operations which are required rather rarely and, thus, which are not provided by big companies ; some enterprises are more specialised in providing some services in the group of services under study when the latter covers a large scope ; ... The stratification of providers of services is, in fact, made independantly, when the sample of enterprises is drawn. It is also recognised that both the service provided and the nature of the purchaser are two major criteria which implies a price and its movement in a given producing company. So, a market segmentation is to be made by cross classifying products and services so as to arrive, for a given producer at least, at a rather homogeneous stratum of transactions and contracts where prices can be said to move rather similarly.

The second phase of the preparation of the index consists in the selection of a sample of enterprises which provide the group of services (or part of this group) under study.

During the third phase, enumerators are sent to the selected enterprises in order to ask :

(i) to provide the distribution of their turnover on the group of services according to the market classification ; these data will serve to estimate the weights in the total sales of the group of services of the headings in the market classification ; in turn, these weights will be used to aggregate the price indexes calculated from the data collected for each heading ; so the turnover repartition does not need to be of major precision and, of course, it is not intended to disseminate the estimated weights;

(ii) to select representative transactions or contracts for each heading of the market classification, provided that the share of such heading in the turnover of the enterprise on the group of services is important enough ; the level of importance as well as what is meant as to representativity will not be discussed in this paper ; importance and representativity are what the reader thinks they are or should be.

Four remarks are to be made :

(i) the definition of the market classification cannot generally be done by the statisticians alone ; they have to work closely with the professional associations and the enterprises involved in providing the services under study ;

(ii) usually, prior to start the establishment of the basis of a full scale index, tests should be carried out to check the validity of the market classification and the reliability of the collection and calculation procedures ; furthermore, in domains where quality change problems are somewhat new for statisticians, a long test period may be helpful to discover and solve the major problems ; therefore, **an intermediary test phase is usually inserted between phases 1 and 2** (it will be called phase 1-2) and its duration may be between 1 and 2 years ; this phase will also require a close and

efficient collaboration of the professional associations and of the enterprises, generally the major ones, involved in the field of services under study;

(iii) in order to establish a climate of confidence with the collaborating associations and enterprises, the operations should also provide them with statistical information they think is useful for their own purpose : this concerns generally the calculation of a cost index which is taken care of along with the calculation of price indexes ;

(iv) as for now, within INSEE, the development of price indexes for business services is a collaborative effort of the unit in charge of service statistics and of the unit in charge of price indexes for manufactured goods (called hereafter Division IPVI, for indices des prix de vente industriels) ; in practice, phase 1 is carried out in common, the theoretical and practical researches, in particular as to solving quality change problems, are mostly but not exclusively made by the Division in charge of service statistics, the operations in phase 1-2 are performed by the Division IPVI, with its usual enumerators, the findings being reported to the Division in charge of service statistics ; phases 2 and 3 have not yet started, but it is intended, when they become operational, to include them in the permanent work programme of the Division IPVI.

2. Security services

The development of price indexes for security services is the most advanced of all. Some features of the projected index were presented in one of the paper provided for the sixth meeting of the Voorburg Group [2]. Since the beginning of 1992, the tests carried out with some major enterprises have started (phase 1-2). The attached note by Arthur RIDGEWAY, a statistician from Statistics Canada working temporarily in the Division IPVI, shows the present status of operations.

3. Car rental services

Car rental services cover two types of services : short period (one year or less) renting and long period renting. The latter covers financial problems which make it a very different product from the former; in fact, the two types of rentals constitute two separate markets. For the time being, only short period rental services have been studied.

So far, one sole meeting has taken place with the President of the main professional association, who is also a high ranking officer in one of the major groups. He has assured the statisticians of the willingness of the adherents to his associations, which include all the major groups, to provide all required statistics as to turnover breakdowns into market classification headings and, if necessary, to derive actual price from list prices when this can be done (they might provide an average reduction per type of purchasers for the period under review for the price index).

During the meeting, a tentative market classification was made :

- products (rental services) would be classified as to the type of car, the duration of the rental period and the number of cars rented ;

- purchasers'classification would separate between households (for whom listed prices are applied) and other economic agents ; the latter would be further divided into "major renters" (specific prices in contracts), renters holding a renting company credit card (they might receive increasing reductions from list prices, usually by contract) and others (usually liable to list prices).

The major groups represent approximately 65% of the market. The smaller companies are, for many of them, local companies and specialised in the renting of "replacement vehicles" (in case of accident or theft) and negotiate their prices with insurance companies.

Travel agencies have no intermediate consumption regarding the cars they rent for their customers : the purchaser is the final user (a household, mostly).

When list prices can be used, standard renting situations will be established with the help of the renters, and the corresponding (list) prices will be regularly collected. This concerns in particular the rentals by households, which are included within the scope of the consumer price index.

As to quality change problems, the most difficult one is linked to quality change of rented cars. In fact, this problem will be treated along the lines used to treat it in the producer and consumer price indexes.

In conclusion, as for now, the preparation of the calculation of price indexes for car rentals seems to be rather straightforward. After a second meeting where the final classifications will be adopted, it is thought that phase 1-2 can be started for rentals to enterprises while the full scale data collection and index calculation can already be established as to rentals to households.

4. Cleaning services

A very co-operative organisation has been established with the professional associations and the enterprises within a working group where participate very high ranked officers of the major groups in the industry.

Most of the operations in the group of services under study are made in accordance to very detailed contracts which describe the place where cleaning is to be done as well as the cleaning operations to be performed and, even, the "level of quality" of the result. Due to the existence of such detailed contracts and of the openness of the participating companies, it is hoped, if some working forces exist, to try to treat some aspects of the changes in contracts through regression analysis (links between contract price and major descriptors of the work to be achieved). Along the same line, in order to collect prices for always the same operation, it appears that, when major "purchasers" changes the company providing the service, the professional association and the enterprises will provide the statisticians with the name of the company to whom the contract has been transferred.

So far, a long discussion has led to the tentative classification which is presented in table I.

In principle, only cases with a cross correspond to a set of transactions and contracts which have a significant importance for the industry, in terms of turnover share.

Some supplementary precisions are to be made about the table :

(i) The column "other professional buildings" includes places like surgery rooms, indoor sport facilities, etc. which can be summarised as all places which cannot be entered in the headings "offices", "work places", ... The places corresponding to the so-called (by French professionals) "ultra-cleaning" services are to be classified with "other professional buildings" ;

(ii) Cleaning of tanks and cisterns, although it may be sometimes performed by enterprises in the cleaning industry, is not treated here since it is an operation of sanitation. Window cleaning is not isolated since, in France, it is usually included in more comprehensive contracts and the turnover of the operation priced separately is rather small ;

(iii) it is thought that the content of certain cases should be, eventually, further broken down according to more refined criteria such as the type of transportation for the cleaning of vehicles, or using supplementary criteria such as the floor area and the duration of the contract in the case of building cleaning in particular.

Table I: Tentative market classification for cleanig services

	Dwellings	Offices	Work places	Commercial areas	Warehouses	Other professional buildings	Infrastructures Including parkings	Transportation vehicles	Others
Households	X						X		X
Manufactur.		X	X		X	X	X		X
Trade industr.		X		X	X		X		X
Energy		X	X		X	X	X		X
Health,soc.	X	X			X	X	X	X	X
Lodging		X	X	X	X	X	X		X
Leasures		X	X	X	X	X	X	X	X
Transports		X	X	X		X	X	X	X
Pub.admnistr.	X	X	X	X	X	X	X	X	X
Others	X	X	X	X	X	X	X	X	x

5. Market study services

This is the field where the development moves the slowest, because of its difficulty and not because of the reticence of the professionals. In fact a research group has been constituted, made of high ranked and technically recognised representative of the major companies involved in the provision of market study services. Two meetings have already taken place.

The service itself consists principally of a (qualitative and/or quantitative) survey and of the processing of the results. According to the contract passed with the customer, the tables of the results of the survey may be the final product ; the user may also request the market study company to make an analysis of these results : it can be limited to the presentation of the principal findings or it can be an in-depth analysis where survey outcomes are linked with one another or with other economic or social data.

As for now, a tentative market classification has been done, but requires more discussions to be finalised.

The tentative product classification would include the following headings :

- distributors'panels ;

- consumers'panels ;

- "omnibus surveys" (one can purchase some questions in a wider set of questions posed to various respondants) ;

- analysis of television viewers, radio auditors and media users ;

- pre-tests for advertising services ;

- product tests ;

- test markets (full size simulation before launching a finalised product) ;

- post-tests for advertising services ;

- ad hoc quantitative surveys ;

- qualitative surveys using group meetings ;

- qualitative surveys using individual interviews.

As to purchasers, the following classification was tentatively agreed upon :

- producers of durable and semi-durable goods ;

- producers of other consumer goods ;

- media, advertising companies, purchasers of advertising space ;

- retail trade companies ;

- financial service industry, including insurance companies.

6. The problem of services not regularly produced

The main problem which was encountered in the case of market study services and which needs to be solved prior to make further steps, even as to classifications, is the question of how to deal with services provided once and not provided again in a comparable manner.

This item is dealt with separately from market study services because it can be encountered in other group of services. For the first three groups studied in this paper, there are indeed ad hoc unique services, but they can be disregarded due to their very small importance in the turnover or due to the fact that they can be considered as the addition of prestations with a more restricted scope which are reproduced over time and the price of which can be added for a correct evaluation of the unique service price.

This is not the case for market study services. First, unique services represent a share in the total turnover on market studies which is close to 50%. Secondly, usually, the total price of the service cannot be considered to be the direct

addition of the component prices as they are charged to other users by the company in charge of the market study.

No final solution has been proposed, but, also, not much time has been available for research on this subject. Two possibilities have been cited :

(i) define some "standard services" and ask the sampled enterprises to price them at each collection date ; if this is applied, it is feared that the value of the standard services will be estimated from listed prices ; it has already been said that listed prices are usually bad indicators of actual price changes ;

(ii) as proposed earlier, take into account that ad hoc services are made of a series of elementary tasks, and try to estimate (using regression analysis, for example) the price of each elementary task, from a rather large sample of contracts passed during a specific period of time.

It is hoped that, with the help of some readers of this paper and with the possibility of findind some research forces for the purpose, some opening can be found in the solution of the problem during the year to come.

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