STATISTICAL OFFICE OF THE EUROPEAN COMMUNITIES

METHODOLOGICAL MANUAL

OF STATISTICS ON SERVICE ENTERPRISES

CHAPTER "GENERAL FRAMEWORK"

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CONTENTS

1. INTRODUCTION

200. The chapter "General Framework" covers the methodological elements relating to statistical units, classification issues and economic variables which are common to the entire services field. This chapter is intended to facilitate examination of the various activities in the services field and to enable relevant comparisons to be made between these activities, regardless of their diversity, and between countries, irrespective of differences in customs and legislation. It is therefore necessary to determine which observation units and classifications should be used and, finally, to decide which common economic variables are to be measured. The "General Framework" is the common basis for collecting and preparing statistics on services.

201. Since the variables in question have to be common to all sectors, they are inevitably fairly poor material with which to examine each sector in detail, particularly with a view to defining economic strategies or regulations. To take transport as an example : freight statistics are extremely important, but obviously cannot constitute a common variable. The same applies to banks (involving credit, etc.). The proposed approach does not exclude other more specific approaches to each sector and subsector.

2. STATISTICAL UNITS

2.1 Potential statistical units in service statistics

202. NACE/70 distinguishes between, among others, four types of statistical units:

- the enterprise (or legal unit),
- the group of enterprises,
- the local unit,
- the kind-of-activity unit.

203. «The enterprise is a legally-defined unit which has its own balance sheet, is subject to a directing authority (which may be either a natural or a legal person) and has been formed to carry out, in one or more places, one or more activities for the production of goods or services». [NACE/70, 28]

The characteristic feature of an enterprise is therefore its independence (which is purely theoretical if it belongs to a group), its legal, financial and accounting autonomy; it h its own balance sheet and is subject to tax.

204. «A group of enterprises is an association of enterprises held together by legal and/or financial arrangements, such as holding companies, cartels, consortia etc. The group may comprise more than one source of decision-making - particularly as regards policy on production, sales, profits etc. It can bring together certain aspects of financial management and taxation matters.» [NACE/70,29]

A "group" is a structure which comprises units subject to its power of decision making. The boundaries of a "group" are determined by considering all its financial interests in the various legal units. A legal unit may depend on several groups but it will be held mainly by a single "group" only, its share holding, be it minority or majority, being sufficient to control the legal unit. "Group" statistics are particularly difficult to follow because the boundaries of the groups may fluctuate according to changes in share holdings. Four types of group can be outlined:

- Independent units, e.g. a hairdresser's, which are simultaneously local units, le units and a group. These are not true groups but they cannot be omitted in a statistical system based only on the "group" unit, if it is to cover at least the whole production system.
- Groups which, for administrative reasons, are made up of the parts into which a legal unit can be split; this type is in fact a "quasi-legal-unit", but it may change as other groups obtain a share holding.
- "True groups" with an economic purpose which have either a horizontal or vertical integration strategy; they are subject to an economic rationale and the boundaries of these groups are therefore relatively stable.
- "True groups" with a financial purpose subject to a purely financial rationale; the boundaries of these groups may fluctuate greatly.

In the three latter types of group, there is generally a "parent" unit among the various legal units which holds and manages the financial interest and defines the strategy for the group.

205. The local unit is defined as «a production unit (e.g. a workshop, factory, shop, office, mine or warehouse) which is situated in a geographically separate place and in which one or more persons work for a single enterprise». [NACE/70, 31]

The local unit is legally dependent on a single legal unit and does not have financial, legal or accounting autonomy. In practice, depending on its type (shop, warehouse, etc.) and also on the type of services provided (to private or business customers, etc.) the accounts may be quite highly developed but, even at best, they are unable to provide enough information for the balance sheet. Given that every local unit depends on one and only one legal unit, it is easy to make the transition from the local unit to the legal unit and vice-versa, and there is no risk of omission or double counting.

206. «Kind-of-activity units are those enterprises or parts thereof (whether spatially separated or not) that carry on a single activity which is characterized by the nature of the goods or services produced or by the essential identity of the production process employed, this activity being defined in terms of a standard classification of economic activities.» [NACE/70, 33]

The K.A.U. becomes synonymous with the legal unit or local unit if the activities carried out by them come under the same classification heading. If the unit carries out several activities, it is necessary to separate production, employment, etc. and allocate them to the various K.A.U.'s, which is much easier to do for large units producing goods (particularly with "workshops" producing "physical products") than for the production of services.

2.2. The three approaches

207. Statisticians have developed three types of approach for economic analysis : analysis by sector, by branch and by function.

208. The sector(1) comprises units having the same principal activity through reference to an activity classification system. The level of main activity can be determined in a fairly detailed way. Two sectors can be formed:

- the sector comprising the enterprises,
- the sector comprising the local units.

The "sector" data classifies the units according to principal activity, but does not generally distinguish between the principal activity or possible secondary activities, and therefore does not allow statistics on products or the branch to be compiled directly; however, as is often the case with services, some units are small and very specialized, and they therefore produce only a single product.

209. «The branch consists of a grouping of units of homogeneous production(2) . The set of activities covered by a branch is identified by reference to a product classification. The branch produces those goods or services specified in the classification and only those products.» [ESA, 268]

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(1) This does not involve "institutional sectors" in the ESA sense, but in the Anglo-Saxon sense "industry".

(2) «The distinguishing features of this unit are inputs of products, a particular production process and outputs of homogeneous products. The products that constitute the inputs and outputs are identified by reference to a commodity classification, taking into account simultaneously the nature and stage of manufacture of the products and the type of production process employed». [Source : NACE/70, 34]

«Branches are units designed for economic analysis which cannot be observed directly: data collected from the units used in statistical enquiries have to be rearranged to form branches.» [ESA, 270]

210. "Branch" statistics are therefore statistics which have been highly processed, presenting a product-by-product breakdown; since accounting analysis is involved, for services at least this means analysis by "invoiced products". The branch or product analysis makes it possible to study demand and carry out "market research", whereas sector statistics, being based on production units, are directed more towards supply and management. In fact, for services, there is very often a correspondence between "activity" and "product" and the "branch" data (with the idea of product) and the "kind of activity unit" data (with the idea of activity) therefore tend to converge.

211. The statistics are collected by branch, with units being asked to supply information on the breakdown of their production according to "kind-of-activity units" (sales, employment, value added, etc.) or more directly on the breakdown of sales by product. In this latter case, the valuations must be manipulated by rearranging the corresponding employment. The "branch" is obtained by adding the total for sales, employment, etc. of this product for the whole of the main activity sectors.

212. The breakdown of receipts by product facilitates calculation of the turnover and resources from secondary activities for both the industrial and the service sector. This makes it possible to reorganise the information and to make the transition from a statistical system based on the "enterprise sector", which is classified according to the principal activity, to "branch" statistics, by grouping the "homogeneous production units" producing the same goods. To this end, a "sector-product" transition or a "sector-branch" transition is carried out, as seen in the table below:

"Sector - product" transition

Sectors / Products	Sector A	Sector B	Sector C	Sector ii	Production system
Product A	X	X	X	.....	Total of products A
Product B	X	X	X	.....	Total of products B
Product C	X	X	X	.....	Total of products C
Product ii	.....	.....	.....	.....	.....
Production system	Total sector A	Total sector B	Total sector C	Total	Production System

Insofar as, with a few exceptions, any product can be sold by any enterprise irrespective of its main activity, the observation system must be complete in order to carry out a "sector - product" transition (the observation system even if separated, must cover the whole economic activity, and the observation instrument for industrial units, for example, must also cover "services" products, which are produced as a secondary activity, and vice versa...). The "sector - product" transition makes it possible to find out "who produces what" (or vice-versa). The determination of "who consumes what" requires another approach (input/output tables).

213. An analysis by "sector" or by "branch" represents only one part of services, the part that is invoiced. A service invoiced by an industrial enterprise or by a service enterprise is certainly taken into account in the analysis by product. But the "non-invoiced" services, those internal to an enterprise, are not taken into account (they are known as "ancillary activities"). They are particularly important in the case of services provided to enterprises and even more so in the case of land transport. Analysis by function makes it possible to examine all services, whether invoiced or not.

«Administrative offices, repair shops, stock keeping and internal transport are always regarded as ancillary activities, provided that the services they render are entirely absorbed within the enterprise». [NACE/70, 26]

214. The relative size of "invoiced services" and "ancillary services" varies widely according to the activities and the countries involved (regulations, tax law, company behaviour, etc.). A country by country comparison of the size of "invoiced services" alone is therefore misleading. Likewise, international comparisons of value added by a sector will be misleading if in one country the services are contracted out (invoiced and therefore not featuring in the value added for industrial activities) and in another country provided in house (and therefore featuring in the value added).

A full analysis of services therefore requires an analysis by product (invoiced services) and an analysis of the ancillary services (non-invoiced services). But an analysis of non-invoiced services is extremely difficult because the traditional accounting frameworks cannot be used. Recourse has to be made to analytical accounting techniques which have more to do with monographic analysis than a classical statistical system. Moreover, although a full analysis of services requires highly elusive information on non-invoiced ancillary services, this does not obviate the need for the more accessible information on invoiced services. Nevertheless, in some activities or sub-sectors where the "ancillary services" are very important, e.g. land transport, it is impossible to limit the study to "invoiced services" only.

215. The three types of approach (sector, branch, function) are adapted, in theory at least, the various spatial dimensions (region, country, European Community). A principal activity sector can be defined in terms of a given geographical area. Likewise, the analysis by branch or function (where possible) can be done by region or by aggregating the national systems.

216. The increasing internationalization of services cannot, however be analyzed by these means. International flows of industrial products are studied by examining the statistics on foreign trade. Goods crossing frontiers "physically" are represented in the Customs statistics as imports and exports of products. As for services, which are "intangible" products, flows are shown not in terms of physical frontier crossings but by the transfer of revenue. Recourse can be made to the Balance of Payments Statistics, which are established principally on the basis of the enterprises' declarations to banks when revenue is transferred.

The terms "import" and "export" are much more vague in the services field than in the industrial sector. In the case of international flows related to tourism also, there are no "exports" in the classical sense as regards receipts of the term, but "sales to non-residents", which are much more difficult to evaluate than goods going through customs.

The internationalization of services and the size of market share do not always result in direct flows. For a good number of services, internationalization consists in the direct establishment of a subsidiary abroad. This is particularly the case in computer services, law offices, etc... So it is necessary to monitor, by activity, the direct establishment of branches abroad (and the foreign establishment of branches in the national territory) with regard to both annual flows and stocks. The transfer of revenue (dividends...) connected with the establishment of these branches should also be monitored. Otherwise, if the internationalization of services is only examined through the exchange registered in the Balance of Payments, this internationalization will be minimized. Finally, the internationalization of a country does not only consist of "transfrontier" transfers. The revenue of a subsidiary that is established abroad can be directly reinvested in any other area than the national territory.

2.3. Relation and comparison between types of statistical units

217. There are logical links between the different types of units and, in theory, it is easy to make the transition from one to the other by examining the legal, economic or financial links. However, even if some data can be directly aggregated by additioning (value added for example), other data (turnover) cannot, so that a "consolidation" is necessary.

218. A K.A.U. or a group of K.A.U.'s constitutes an enterprise; likewise, a local unit or a group of local units constitutes an enterprise ; there is no risk of omission or double counting. An enterprise or a set of enterprises constitutes a group. In so far as several groups can have a financial interest in the same enterprise whilst the latter can only be attributed to a single group, there is a real risk of omission or double counting, all the more if the "membership" of the groups varies according to changes in share holdings.

219. When compiling the registers, it is possible to give priority to the unit of highest aggregation (the group), to then compile a register (for groups) of the various legal units belonging to that unit and finally to compile a register (for the legal units having several local units) of these various units. The reverse procedure is also possible: compiling a register of local units, re-arranging the legal units (enterprises) and supplementing that by a file of the "true groups". The only golden rule is that there should be no omissions or double counting.

220. As is the case for classification systems, a particular statistical unit cannot be "multi-purpose"(3). For accounting data, one usually looks to the smallest units with a complete accounting system, i.e. to the enterprise sector. For employment data, which is of a quite different kind, one looks to the local unit which has information on the number of employees, i.e. to the unit which actually pays the wages; this is the sector of the local units. However, if a direct comparison between employment data and accounting data is to be made it is better to look directly to the enterprise sector.

221. The sectors are not "water-tight": in reality, the production units, which are classified according to their main activity, have, at least in the case of the largest, mixed or juxtaposed activities. The sector of the local units is much closer to the branch or the "kind of activity unit" than the enterprise sector because the local units obviously have a specialization which is equal to or greater than that of the legal unit which is merely the gathering together of a set of local units. But accounting statistics cannot be obtained on a systematic basis from the local units because:

- they do not have full accounting systems,
- some of them invoice their customers (retail trade) but others do not and deal only with the enterprise of which they form a part (for example a warehouse),

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(3) See introduction to NACE/70:

II. STATISTICAL UNITS AND CLASSIFICATION SYSTEMS

5. No single statistical unit is suitable for all the factors to be observed.

6. No single statistical unit can fulfil all requirements.

7. The problems of devising statistical units and setting up classification systems are not independent of each other.

8. No classification system can fulfil all requirements.

9. There is no way of avoiding the use of more than one statistical unit or system of classification. But everything possible must be done to ensure that the statistical units are in agreement among themselves and that the systems of classification are likewise. The coherence of the resulting statistics depends on this.

- some of them are only responsible for managing personnel or, as is more often the case, the means of production on behalf of their enterprise,

- finally, some of them, in much the same way as above, only perform "ancillary activities" (administration, general services) on behalf of the enterprise, which by definition are "non-invoiced", and therefore do not come under traditional accounting analysis.

222. The regional analysis is based more on the local unit; the location of a temporary work enterprise or of a retail trade enterprise with many branches is not important at the regional level; but it is important for the local units of this enterprise. So, the analysis of local units is more or less significant depending on the different sectors ; for some activities (the Financial sectors, retail trade, transport, HORECA, etc...) it is particularly important, although the analysis by "enterprise", should not be forgotten.

The analysis by country is based on the resident enterprise sector, which excludes their foreign subsidiaries. The analysis at Community level can be carried out by aggregating the statistics of the member countries (including intra-Community trade). But when it comes to studying economic and financial strategy at a European as well as international level, it is the analysis of the "group" unit, despite all its difficulties, which is best suited

2.4. The enterprise as the basic statistical unit

223. The choice of observation unit obviously depends on the study area ("services") and the concerns of the users. Even in the initial stages of the development of service statistics both an overview of "services" and the various sectors as well as a more detailed approach more appropriate to the subsectors are required. The enterprise is the preferred unit, which does not exclude additional approaches in some sectors, based on the local units (regionalization) or on the groups (economic strategy at national or international level).

224. Services are predominantly the domain of the small enterprise. The most common unit (and representing a very high proportion) is therefore an enterprise, a local unit and a group all at the same time. In addition, even when an enterprise has several local units, the regional relationship of the enterprise and of its various local units is often identical. It is easy to make the transition from statistics based on the local units to those based o the legal units (enterprises) by aggregating, but these statistics are relatively unreliable, except for those relating to employment. Use of the "enterprise" unit is much better for accounting analyses, which is why the latter should be favoured.

225. Analysis of the "enterprise sector" favours the geographical "country" space rather than the region or the international space, but for services it is also the most direct way of analysing on a regional or international basis. This type of analysis has its drawbacks and its limitations and must be supplemented according to the objectives pursued. For an analysis of concentration by activity for example, an examination of enterprises alone may lead to misinterpretations if corrections are not made, by grouping together the sector enterprises which come under the same decision centre (group). This also applies to studies of economic and financial strategy, and, in general, to everything in the international arena where the analysis of the enterprise unit must be supplemented by an examination of the "true groups" (and particularly their non-resident subsidiaries). For regional analysis, the enterprise approach must be supplemented for proximity services and for multi-regional enterprises by observation of local units.

226. The enterprise approach does not enable the "function" to be studied; an accounting analysis only deals with "invoiced services" and therefore neglects the "ancillary services", but this very difficult analysis of function presupposes, not surprisingly, an examination of invoiced services - this is therefore an unavoidable step. Like all the approaches by principal activity, the enterprise sector has its drawbacks for analysing time series. Each unit has one and only one principal activity according to which it is placed in the classification system, and possibly one or several secondary activities. The principal activity may vary over time, particularly for enterprises in the grey area between two activities. This drawback can be overcome by statistical methods which introduce stability criteria to prevent units alternating from one main activity to another. However, changes in activity are a reality and full account must be taken of this. This upsets the time series analysis, when large units are involved: one sector expands at another's expense. This phenomenon is exacerbated if examination of the sectors takes place at a detailed level and most of the changes only cancel out with large sectors (HORECA, transport activities, etc.). In the time series, therefore, a distinction must be made between what emerges from the inter-sectoral reclassifications and what is the result of real change. This drawback can be overcome by conducting an additional analysis by product or even by kind of activity unit. It is through a breakdown of production of the enterprises and the enterprise sectors by product or by kind-of-activity unit that the "branches" can be rearranged in the national accounts. These breakdowns are therefore essential in determining the quality of the national accounts, but the development of a complete and coherent system like the national accounts is possible (with a few important exceptions) at a relatively high level of aggregation (it does not contain a breakdown of the "sub-branches" and is not always on an annual basis).

227. For industrial statistics, it is the enterprise sector and the breakdown by KAU which are adopted. The KAU's are observed from kind-of-activity units employing a minimum of 100 people, as smaller enterprises seldom pursue more than one activity(4). Moreover, the gathering of statistics by kind-of-activity unit (i.e. not only breakdowns by sale, but also by employment, etc.) seems unlikely to be within the means of enterprises having less than 100 employees. For services, where there is a definite division of enterprises having more or less than 100 people, the collection of information on kind-of-activity units with at least 100 employees would yield results which would be too incomplete and therefore not of much interest. It is better to restrict the breakdown of data on enterprises to turnover alone.

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(4) [Industry handbook, 2.1.]

3. ACTIVITY AND PRODUCT CLASSIFICATION SYSTEMS

3.1. General aspects

228. Classification systems are an essential part of enterprise statistics. The units are classified according to their principal activity which is defined by reference to an activity classification system. Likewise, the principal activity is determined by the volume of value added per activity; if this figure is not available, it is possible to make an estimate from the various sales, when they are referred to by a product classification system, so that each sale is corrected by a ratio measuring the share of value added in the turnover.

229. The development of a classification system is a long process and the final result is largely the result of a compromise between the needs and requests of the various partners and users. Once the official classification systems have been adopted they are fixed for their period of operation (approximately 20 years); this restriction enables time series comparisons to be made and registers to be drawn up with reference to stable classification systems, etc. This stability constraint is strong as, once it has been adopted (i.e. fixed), a classification system begins to become obsolete, and this is particularly true for services which undergo very rapid changes. The summary table in paragrah 23 illustrates the changes in services over 20 years: more levels for the ICOBS, fewer for distributive trade, etc. The constraint of having classification systems which do not vary in the face of changes in the real world is something which can be overcome with survey classification systems. This is done by having a more detailed breakdown than the official one but still linked to it. Moreover, a classification system cannot be completely multi-purpose ; headings at the two- or three-digit level do not permit all types of analysis. It is always possible, for example if the "information" area is to be investigated, to approach the problem from a different angle and "rearrange" the statistics from the basic levels (four digits).

230. The new European classification systems must meet, in particular, the requirements of international comparability; they have therefore been harmonized with the classification systems of the United Nations which were originally designed first and foremost to describe economies at very different stages of development.

The revision of the Community's classification systems, NACE/Rev.1 for activities and CPA for products, is complete for activities and near to completion for products. In 19 NACE/Rev.1 replaces NACE/70. The new classification systems are harmonized with those of the United Nations, ISIC/Rev.3 for activities and CPC for products. The Community classification systems must meet a double requirement:

- they must ensure data comparability between Community countries on the one hand and third countries on the other, particularly those countries with highly developed service sectors;

- they must provide a breakdown which is sufficient for the policy purposes of the Community and of the Member States.

231. As far as the activity classification system is concerned, ISIC/Rev. 3 and NACE/Rev. 1 are the same at the two-digit level, which satisfies the comparability requirements for national accounts, in large fields (like "services") and, with a few exceptions, for sectors (ICOBS, HORECA/TA, transport activities, etc.). For the more detailed levels in the classification system, which are the levels with which enterprise statistics are concerned, the ISIC/Rev. 3 is not the same as the NACE/Rev. 1 (which is more detailed), but the two classification systems are linked and a transition can be made by aggregating from NACE/Rev. 1 to ISIC/Rev. 3, thus making international comparisons possible. The CPA currently being drawn up will likewise be more detailed than the CPC of the United Nations, yet linked to the latter.

3.2. Activity classification systems : NACE/70, NACE/Rev. 1 and ISIC/Rev. 3

232. In general taking account of the constraints of harmonization with other classification systems, NACE/Rev. 1 has fewer headings than NACE/70 and no longer distinguishes between market and non-market services. It has 59 headings at two digits (as opposed to 80 for NACE/70), 224 headings at three digits (as opposed to 343) and 516 at four digits (as opposed to 758). The same applies for services (including administrations). The number of four-digit levels in the new NACE is the same as the three-digit level in the former NACE, but it should be borne in mind that the four-digit headings of the NACE/70 were rarely used.

Number of headings in NACE/70, NACE/Rev. 1 and ISIC/Rev. 3 for services

	NACE/70	NACE/Rev.1	ISIC/Rev.3
2 digits	48	26	26
3 digits	201	92	72
4 digits	317	210	134

233. This manual covers approximately the following number of headings:

		NACE/REV.1			NACE/70		
	NACE/ Rev.1	2 digits	3 digits	4 digits	2 digits	3 digits	4 digits
Distributive trade	50.52	3	19	77	6	40	141
HORECA/TA	55, 63,3	1	6	10	1	8	15
Transport	60.63 except 63.3	4	14	19	7	16	18
Financial Services Insurance Services	65-67	3	5	12	2	8	9
ICOBS	64, 70.74	6	25	40	5	18	21
Sub-total	50.74	17	69	158	21	90	204

In the breakdown, "travel agencies" and "postal and telecommunications services" are recorded in HORECA and ICOBS respectively and not under transport contrary to the classification adopted in NACE/Rev.1 ; furthermore for NACE/70, and it has been decided that each 3-digits level will have at least a corresponding 4-digits level number in order to make the comparison significant.

234. The number of headings has not been reduced on a uniform basis; the number in distributive trade has been roughly halved, with many forms of retailing coming under fewer headings; in transport, air transport is broken down in more detail in the new classification system; in ICOBS, computer services come under six headings with three (and four) digits as opposed to a single four-digit heading in NACE/70; the residual heading 839.3 (other business services n.e.c.) in NACE/70 is broken down into four four-digit headings in the new NACE ; and finally communication comes under three four-digit headings as opposed to a single heading in NACE/70.

Changing the European classification systems raises the obvious problem of the continuity of the time series. The transition from the former to the new NACE presents few problems at the two-digit level and in most cases at the three-digit level except. of course, for new services like computer services, where it is only possible to make the correspondence between a four-digit level in the NACE/70 (therefore often inaccurate) and the two-digit level in the NACE/Rev. 1. When new activities are involved this latter drawback is difficult to overcome.

3.3. Product classification systems : CPC, CPA

235. The CPC (Central Product Classification) of the United Nations is an innovation in the services field. The CPC product classification system at the three-, four-, and five-digit levels is linked to the ISIC/Rev. 3 activity classification system and contains approximately 1,500 entries. A CPA product classification system is in the process of being developed for the Community ; it is linked to NACE/Rev.1, unlike the CPC and the ISIC/Rev.3. Using the CPA, a stable classification system, it will be possible to draw up product classification systems which are more detailed and flexible for investigation of the production units. The survey classification systems, which can be revised, can be adapted to economic developments as well as to changed circumstances by permitting a breakdown of the receipts of the production units by type of invoicing or by type of customer.

4. ECONOMIC VARIABLES

4.1. Classes of variables

236. The various economic variables should make it possible to describe the various "services" sectors and sub-sectors within a common framework. The variables are split into 3 classes :

- structural characteristics of the units,
- accounting data on the units,
- data on employment of the units.

237. Variables on the structural characteristics of the units facilitate study of the production system and its development.

238. From a subset of the accounting data it is possible to draw up a simplified generation of income account which, from the turnover, fixed production expenses, and related stocks determines the value added and the gross operating surplus. In making the transition from turnover to value added, an intermediate step enables the value of production to be determined [5]. In this document the definition of value of production is very generalized

(turnover) + (change in stocks of products at their producer's) - (purchases for resale for the further provision of services + change in stocks of products purchased for resale and for the further provision of services)

and may be adapted to each sector or sub-sector possibly to the extent of complementary definitions in the case of the financial sectors (see the relevant parts of the corresponding sectoral chapters). It is obvious that some sub-sectors have no purchases for resale (e.g. lawyers) and others have no change in stocks (temporary work).

239. In fact, even though the variable "turnover" is necessary, notably for the breakdown of sales by product, it is not always very significant when comparisons are being made between activities. The activities or the enterprises involving the "purchase and resale of goods or services" have, all things being equal, a turnover which is much higher than the suppliers of pure services. By eliminating from turnover the purchases for resale of goods and services, as well as for the further provision of services, the value of production is obtained. This enables the pure provision of service to be measured, as well as the profit margin and/or possibly the industrial production, and significant comparisons to be made between each activity and each enterprise. Value of production is consistent with production in the ESA's "input-output table". The other aggregates, "value added" and "gross operating surplus", which can be drawn up as complementary definitions in the case of the financial sectors, can be directly compared between enterprises and sub-sectors. The following is the simplified generation of income account.

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(5) See figure on next page.

DEBIT	CREDIT
Purchases for resale of goods and services, and subcontracting - Change in stocks of goods purchased for resale and resale and for the further provision of services Balance = Value of production	Turnover + Change in stocks of products at their producer's Fixed production
Other purchases - Change in stocks of other purchases Balance = Gross value added at market prices	Value of production
Taxes and duties relating to production excluding taxes on profits Balance = Gross value added at factor cost	Gross value added at market prices Operating subsidies
Labour costs Balance = Gross operating surplus	Gross value added at factor cost

240. The other variables enable the main variables (gross wages and salaries,etc...) to be broken down, or supplemented (prices of products sold), or to shed light on some sectors (exports) although they are not relevant for others.

For services, the small enterprises cannot be overlooked (zero to nine employees); even if the accounting information is less complete than for the larger enterprises, it is possible to make estimations.

It is particularly important to have data on employment in the services sector, because of its role concerning job creation.

4.2. List of economic variables

The following list of variables in no way presupposes those used for data collection, which indeed can only be multiform.

Structural characteristics of the units

241. The structural characteristics selected are as follows:

1	Number of enterprises
2	Number of local units
3	Variables concerning the characteristics and demography of enterprises (or local units)
4a	Division of the enterprises (or local units) according to the number of persons employed or the number of hours worked by wage and salary earners
4b	Division of the enterprises (or local units) according to class of value added or turnover
6	Variables relating to market share and internationalization

Accounting data on the units

242. The accounting variables fall into two groups : variables collected and variables calculated from that data.

243. The collected variables are as follows:

8	Turnover (sum of 8a)
8a	Turnover by product (part of 8)
8b	Intra-/extra-EC exports (part of 8)
9	Prices of products sold
10	Labour costs
10a	Gross wages and salaries (part of 10)
10b	Voluntary social security contributions and other labour costs (part of 10)
13	Purchases of goods and services
13a	Purchases of goods and services for resale, and for the further provision of services (part of 13)
14	Intangible investments
15	Fixed production
15a	Fixed production of tangible investment goods (part of 15)
16	Tangible investments
16a	Purchases of land (part of 16)
17	Disposals of fixed assets
18	Leasing used by the units
28	Duties and taxes (other than VAT) relating to production
29	Operating subsidies
30	Change in stocks of products at their producer's
30a	Change in stocks related to production (part of 30)
30b	Change in stocks of goods purchased for resale and for the further provision of services(part of 30).

244. The calculated variables are as follows:

20 Gross value added at market prices

21 Value of production

31 Gross operating surplus

Data on employment of the units

245. The following variables on employment have been selected:

22 Number of persons employed

22a Number of wage and salary earners (part of 22)

22b Number of persons employed on part-time basis (part of 22)

22c Number of female persons employed (part of 22)

23 Number of hours worked by wage and salary earners

24 Variables relating to personnel qualification levels

4.3. Criteria for the definition of variables

246. The definitions used are mostly taken from or based on the Eurostat document: "Structure and activity of industry Coordinated annual inquiry into industrial activity in the Member States. Methods and definitions", 1978. The industrial handbook contains definitions only of those variables to be collected from the units. The aggregates (e.g. value added) which are deemed to be calculable from the collected variables are not defined.

The following documents have also been used:

- "General reference programme for statistics on enterprises in wholesale and retail distribution in the countries of the EC",1978.
- "European system of integrated economic accounts ESA", 1979.
- "Introduction to NACE/70".

The source used is cited in the paragraph "definition". Where a source has not been quoted verbatim, because its wording was not applicable for services, it is marked "adapted from".

247. This present manual is a manual on enterprise statistics and not on national accounts. It includes, on the one hand, basic variables which are based on the enterprise statistics and which are expressed in business vernacular, e.g. turnover ; and on the other hand variables which will be calculated by statisticians from the basic variables, such as value added. This manual is also aimed at obtaining the data required for the national accountants, in order to make the transition from enterprise statistics to a national accounts statistical system.

248. Thus, in enterprise statistics, turnover may or may not include purchases of goods or services intended for resale. This is not the case for the "production" in the "input-output table" of the national accounts. It is precisely for this reason that, taking the turnover as basis, it is necessary to have information on purchases of goods intended for resale in order to achieve the transition from "turnover" to "production" in the ESA.

249. In this way, an engineering enterprise, for example, which is in charge of setting up a firm, can operate in two ways, either as a supplier of pure services or by supplying the firm "turnkey", in which case it will purchase, on behalf of its customer, the whole construction work, the machine tools, etc. necessary, and will then invoice these to its customer within the framework of the "turnkey" delivery. In enterprise statistics, invoices and turnover will differ very much depending on whether or not the engineering service plans a "turnkey" delivery; in the national accounts, purchases intended for resale and sub-contracting will be eliminated during the "sales - production" transition and reassigned under "product" to the corresponding industries (concerning employment, they will be considered as investments or as "gross fixed capital formation"), and in total the engineering production will be the same, whether or not there is a clause for "turnkey delivery".

250. For an enterprise, purchases of land are included in investments, which is not the case in the "gross fixed capital formation" of the national accounts. Hence the need is to consider land purchases separately, so as to prepare the transition from the enterprise statistics to a national accounts statistical system. Furthermore, turnover does not include fixed production, which is part of the production in the national accounts...

251. A large number of indicators have been selected. It is not a matter of systematically collecting all the data immediately, especially since the precise definition of some variables (e.g. immaterial investments) is at this time premature, and since the collection of other variables (price of some products) requires further methodological progress. The general framework provides the definitions for a certain number of basic or calculated variables, but does not make provisions for the method of data collection.

5. SOURCES OF STATISTICAL INFORMATION ON SERVICES

252. There are numerous statistical sources for production activities. The data collected and analyses carried out are derived from different sources in the majority of cases. It is, therefore, the systematic grouping together of available sources which provides an overall understanding of the production process. Among these statistical sources, we can distinguish :

- official sources of statistical information;
- non-official sources of statistical information;
- registers and lists of production units which constitute one of a number of sources, but whose strategic importance for the development of statistical data is such that they merit being set apart from the rest;
- accounting data published by the units (management reports).

5.1. Official sources of statistical information

There are many general sources, especially in the employment field.

Administrative files

253. Many such sources exist but their use for statistical purposes depends upon the opportunity of accessing these and of rearranging the data obtained. If National Statistical Offices (NSOs) have access to general or specific sources of data, given the application of regulations currently in force, this data can be analysed and rearranged by the NSOs themselves.

254. The tax source (or rather tax sources), derived from annual company tax declarations (by individual, as well as groups of enterprises) where available, is an extremely important source for the main statistics concerning units of production. One must, however, be able to determine the main activity of the enterprise in question (with reference to the NACE) and of reporting units (this is particularly possible where a general register of production units exists). If not, this data source is of far less interest. Likewise, the use of VAT and turnover declarations during the year, for the collection of indirect taxes, provides a means of observing recent trends.

255. Numerous other administrative sources exist which are more specific or more sector oriented. This is often the case for activities which are subject to a rigid organization and which must provide regular reports for controlling bodies, who are often responsible for analysing and distributing these data. Such is the situation, for example, for central bank reports and insurance managements etc; in France the "Ministry of Employment" publishes a great deal of statistical data derived from compulsory declarations by temporary employment agencies.

Censuses and surveys

a) General censuses

256. Population censuses, which are carried out every ten years or so, are one reference source for data on employment in the various sub-sectors. They provide a great deal of information, which allows a breakdown of the working population according to type of economic activity (NACE), sex, status (salaried employee, non-salaried employee), qualifications ...; which is valuable for regional analyses. Some countries also carry out censuses on production units.

b) Specific surveys

257. Specific surveys on production units supplement the existing statistical system, where necessary. Direct surveys are, however, as costly for the production units questioned as they are for the organization carrying them out.

Several options exist for surveys which are aimed at describing the structure of production units:

- a series of surveys (one per NACE position or NACE group) which are not interrelated or drawn up together, but which can be modified to suit the specific activities surveyed in an optimal way. In the long-run, this method proves to be very expensive since it requires as many processing chains as surveys launched;

- a detailed census of production units, carried out for example every five years, with a general questionnaire for the units, modified in relation to each particular activity ; this method is often adopted in the absence of a register of production units. The census is thus carried out in two stages: census of units, then polling by sampling and survey questionnaire. This method can be complemented by a light survey, carried out in the years between censuses to allow changes in main indicators to be followed. Disadvantages exist with this method if one wishes to follow developments in activities or products in some detail, or if one wishes to follow those activities which are undergoing a complete transformation (e.g. communications), although this method could be supplemented by ad hoc surveys;

- one or more series of annual surveys of production units with an extensive "central frame", but designed in such a way as to be flexible enough to adapt to different characteristics of activities. As in the case of censuses, this method permits a horizontal processing of data and does not have the disadvantage of multiplying the number of processing chains as in the first option, given of course, that once these are perfected, they can be employed for a sufficiently long time period (5 years appears to be a strict minimum) without significant modification. This assumes that they have been designed in a sufficiently flexible manner in relation to their potential uses and adaptations.

Integrated statistical accounts

258. National Accounts obviously represent an important reference synthesis for the study of market services. They provide complete calculated and coherent results for each major category of economic activity, though on a rather aggregate level. Moreover, the collection of National Accounts data is placed "downstream" from other statistical sources since they specifically regroup all available sources of statistics and arrange them in a complete and coherent theoretical framework. The quality of National Accounts data is, among other things, dependent upon the existence, adaptation and quality of the statistical sources used. A permanent interaction (and reciprocal consolidation) thus exists between, on the one hand, improving and diversifying basic sources of statistics and, on the other hand, the quality of estimates made in the central accounts of the National Accounts.

"Satellite accounts" covering a specific field (health accounts, housing accounts, environment accounts etc.) are also drawn up as part of National Accounts. These satellite accounts are consistent with the central accounts but have a different approach. They are not based on the concept of sector or branch: each "satellite account" defines its field of study, which mostly cuts accross the various sectors, and its selected variables, which are not necessarily accounting variables.

5.2. Non official sources of statistical information

259. Two main sources can be distinguished :

- Sources derived from private research organisations.
- Sources derived from professional organisations in the broadest sense of the term (trade unions, Chambers of Commerce, etc...)

These sources of the second type tend to be as numerous as professional organisations are well organised, as is often the case where professionals involved in a wide range of activities are generally aware of their common interest. Thus, traditional professional activities such as banking, insurance, distributive trade, etc., possess a more powerful operating network, which is more unified and which has more resources available than any recently established activities (e.g. ICOBS). In the business world, existing sources are often based upon forecasts or upon the recent past.

5.3. Registers and lists of units

260. The situation varies significantly in relation to the country and activity studied. The optimum situation would be one where a general register is available for production units, covering one or several types of unit, a register for local units and/or of enterprises, with possible indications relating to their group relationships. Moreover, the content of these registers can be of particular importance: specific characteristics and the address of the unit, its main activity in relation to a given classification (NACE) and the number of salaried persons it employs. It is most desirable that the characteristics appearing in the register should allow a general identification of statistical units contained in the register. In this way we would possess the elements needed to establish samples, with the aim of launching statistical surveys on production. Some information may also be useful : e.g. "the legal status of the unit". In a more general sense, the use of data contained in a register, if this is well stocked (e.g. if it is relatively "invariable"), is useful, since it avoids overburdening enterprises with requests for data for statistical surveys. Thus, for example, it is often requested that statistical surveys be used in order to sort enterprises according to the date of creation of the enterprise. This request can be met in two ways : either by incorporating an additional question into the survey questionnaire (which would increase the burden on firms), or, if this information appears in the registers, by integrating it into the survey file at the time the sample is selected. This will allow statistical analyses to be carried out at little or no extra cost.

261. In the absence of any general register of units, partial registers may exist (based on such criteria as : size, activity or legal status) or alternatively, there may be lists of units. These lists would not, however, be filled (exhaustive lists) unless inscription is compulsory, i.e. declaration of the activity of the unit is a necessary precondition of its exercise.

For regulated activities, lists of an administrative origin generally exist, kept by Ministries or controlling bodies. One automatically envisages the activities of insurance companies and financial organizations coming under this section. Social reasons could also dictate this situation (temporary work etc...) or professional risk (security work etc...)

262. Other lists of professional, as opposed to administrative, origin can be of extremely good quality if inscription is compulsory for the exercise of the activity in question ; this is the case for "Ordres professionnels"; the compulsory transfer of funds to mutual responsibility societies is another case in point, though several mutual societies may exist which engage in the same activity and in this case an exhaustive census would be required.

In a more general way, professional organizations can be used as a source for unit lists. Sources are often non-exhaustive and focus upon the largest units, tending thus to exaggerate their representation. In addition, lists of "professional" origin are often structured in terms of the type of product sold, rather than the main activity of the unit; thus, there is a risk of double-counting between the various lists. The quality of a list or register is therefore measured in terms of its lack of both omissions and double counting.

ANNEX 1

DEFINITION OF THE ECONOMIC VARIABLES

Code: 1

Name: Number of enterprises

Definition

The enterprise is a «legally-defined unit, which has its own balance sheet, is subject to a directing authority (which may be either a natural or a legal person) and has been formed to carry out in one or more places one or more activities for the production of goods or services.» [NACE/70, 28]

Comments

For services, there can be no discrimination on the basis of size. The small enterprises, even those without salaried employees, must be taken into account.

The enterprises are classified according to their main activity in the NACE/70 classification system.

The enterprise is, by reason of its full accounting system, the most appropriate unit to furnish all the necessary data for establishing value added and gross operating surplus.

The number of enterprises in operation is an essential piece of demographic information. It is a matter of a snapshot statistic which could refer to the situation as of the end of September for example.

Only units, which actually carry out an activity during the reference period should be considered. "Dormant" units or those not yet having begun their activity are therefore excluded.

Code: 2

Name: Number of local units

Definition

The local unit is a «production unit (e.g. a workshop, factory, shop, office, mine or warehouse) which is situated in a geographically separate place and in which one or more persons work for a single enterprise.» [NACE/70, 31]

Comments

The local units are classified according to their main activity in the NACE/Rev.1 classification system. The main activity of a local unit is not always the same as that of the enterprise to which it belongs. So a local unit classified under services as "technical design office" may be part of an enterprise classified under an industrial activity.

As for the enterprises, all the local units must be taken into account, even if they have no salaried employee. This is a matter of a snapshot statistic, which could refer to the situation as at the end of September for example.

Statistics on employment are generally based on the local unit. The regional study of "proximity services" (services with shop premises which invoice customers directly or even services involving essentially small units like the professions) can be based on the local unit.

Code: 3

Name: Variables concerning the characteristics and demography of enterprises (or local units)

Definition

Factors explaining the characteristics and demography of the enterprises.

Comments

The demography of the enterprises can be measured by looking at the change in the number of units by activity (Code 1). This gives the net balance of start-ups and closures but does not give the factors which explain the often rapidly changing demography of service units.

Other variables must therefore be collected:

a Number of business start-ups with a distinction between genuine start-ups and non-genuine ones (resumption of existing enterprises)

b Number of business closures with a distinction between genuine closures (cessations) and non-genuine ones (suspension then resumption)

c Date of the business start-up

d Legal status of the enterprise (legal category): sole proprietorship, partnership (specific, limited liability, etc.), company constituted under civil law, company with share capital, association, etc.

e Date of last change of legal status of the enterprise

f Number of local units belonging to the enterprise

g Mono-regionality variables: an enterprise is considered to be mono-regional if at least 80% of its employees are in a single region

h Main region of operation, calculated via the employees of the local units

i Attachment of the enterprise to a group

These variables are listed for information only. Even if a register exists, it is extremely difficult to trace the demography of units. More methodological progress is needed in this field.

For some sectors in which the local unit is very important (retail trade, HORECA, etc...) these variables may also be collected for local units.

Code: 4a

Name: Division of the enterprises (or the local units) according to the number of persons employed or the number of hours worked by wage and salary earners

Definition

The following breakdown can be made for the sectors:

up	*to 3*	*persons employed*	*or up*	*to*	*5 999 salaried hours worked*
4	*to 9*	*"*	*6 000*	*to*	*19 999 "*
10	*to 19*	*"*	*20 000*	*to*	*19 999 "*
20	*to 49*	*"*	*40 000*	*to*	*99 999 "*
50	*to 99*	*"*	*100 000*	*to*	*199 999 "*
100	*to 249*	*"*	*200 000*	*to*	*499 999 "*
250	*to 499*	*"*	*500 000*	*to*	*999 999 "*
500	*to 999*	*"*	*1 000 000*	*to*	*1 999 999 "*
1000	*to 4999*	*"*	*2 000 000*	*to*	*9 999 999 "*
5000 persons employed or more			*10.000.000*		*or more "*

For publications, a more aggregated breakdown must be made for the subsectors (NACE 3 and 4 digits).

up	*to 9*	*persons employed*	*or up*	*to*	*19 999 salaried hours worked*
10	*to 19*	*"*	*20 000*	*to*	*39 999 "*
20	*to 49*	*"*	*40 000*	*to*	*99 999 "*
50	*to 99*	*"*	*100 000*	*to*	*199 999 "*
100	*to 249*	*"*	*200 000*	*to*	*499 999 "*
250	*to 499*	*"*	*500 000*	*to*	*999 999 "*
500	*persons employed or more*		*1 000 000*		*or more "*

[adapted from the Industry handbook, V,4]

Comments

The division of enterprises according to the number of persons employed enables the concentration to be assessed.

If the number of persons employed is missing, a breakdown according to the number of wage and salary earners could be made.

For some sectors in which the local unit is very large (retail trade, HORECA, etc...) this variable may also be collected for local units.

If the number of wage and salary earners employed on a (very) part-time basis is important, a breakdown of the units by number of staff employed can be misleading. Recourse can be made to a breakdown of the units according to the number of hours worked by wage and salary earners (in the sense of Code 23) This variant of Code 4a can also be used for activities of a seasonal nature.

Comments

The value added or the turnover must be measured in Ecus.

For some sectors in which the local unit is very important (retail trade, HORECA, etc...) this variable, by class of turnover, may also be collected for local units.

The breakdown of enterprises by class of value added or turnover enables the concentration to be assessed.

Depending on the sector, the breakdown of enterprises will be chosen according to the value added or the turnover.

In sectors with a homogeneous turnover (e.g. retail trade) a breakdown by turnover will be chosen; where this is not the case (e.g. ICOBS) the breakdown by value added will be chosen (a breakdown by value of production would also be relevant but it seems futile to increase the number of classification criteria).

For the financial sectors, the concept of turnover is defined in the chapters dealing with these activities.

Code: 6

Name: Variables relating to market share and internationalization

Definition:

Part of the production carried out by units under majority control by residents as a proportion of the total domestic production of products.

Comments

A market share analysis by product is carried out by comparing the different components making up the apparent consumption of the product (turnover, exports, imports). It is a subject calling on a number of variables rather than a code.

For services, an internationalization analysis cannot be restricted to exports and imports alone. The setting-up of subsidiaries abroad also needs to be examined both from a stocks point of view (setting up abroad) and from a flow point of view (annual investments made abroad). Likewise, the number of enterprises from the rest of the world setting up in the Community also needs to be established. Finally, revenue flows (inputs and outputs) resulting from the setting up of subsidiaries or worksites in the rest of the world need to be established.

These variables should make it possible to measure the level of internationalization by sector. They cannot be defined more precisely at present. More methodological progress is needed in this field. The relevant variables will be adapted to the various sectors.

Code: 8

Name: Turnover (sum of 8a)

Definition

Turnover comprises the totals invoiced by the enterprise (or by the local unit) during the reference period, and this corresponds to market sales of goods or services supplied to third parties. Turnover includes all duties and taxes on the goods or services invoiced by the unit (or the local unit) with the exception of the VAT invoiced by the unit vis-à-vis its customer. It also includes all other charges (transport, packaging, etc.) ascribed to the customer, even if these charges are listed separately in the invoice. Reduction in prices, rebates and discounts as well as the value of returned packing must be deducted, but not cash discounts.

Turnover does not include sales of fixed assets. Operating subsidies received from public authorities or the EEC are also excluded. [adapted from the Industry Handbook, VI,18c].

Comments

Credit sales are recorded at the time of delivery.

Turnover as actually recorded in the enterprise is taken into account. In trade activities (e.g. travel agents), the enterprise may act as an intermediary, turnover then being made up of "commission"; or as an "invoicing-trader", the turnover being made up of the purchase, i.e. the sum effectively paid by the customer. (It is not a question of the "net value", which can only be calculated at the level of Code 21 "value of production").

Turnover includes the sale of goods and services relating to the principal activity of the enterprise (or the local unit) but also includes those coming under secondary activities.

As far as the financial sectors are concerned the definitions of turnover are clarified in the chapters devoted to those activities.

Turnover excludes the VAT collected by the seller on behalf of the state : indirect tax is levied on the price of the products sold, according to percentages determined by the type of product.

Turnover is an essential piece of accounting data. Even if it cannot always be used to compare one activity or one enterprise with another, it is the only parameter that permits a breakdown by product or enables exports to be determined.

Code: 8a

Name: Turnover by product (part of 8)

Definition

Turnover of the production unit is broken down according to the various products invoiced by referring to a product classification system.

Comments

Turnover of the production unit is broken down by product by reference to a classification system based on the CPA.

When investigating the units, the survey classification system must be able to distinguish between various products as well as the method of accounting in order to distinguish between invoicing of the genuine provision of services (commissions received by intermediaries) and invoicing coming under sale-resale of goods or services (activity of invoicing trader).

If the value added per activity is unknown, the breakdown of turnover by product may enable the main activity of the units to be established. The product-by-product statistics (achieved through a sector-to-product transition) forms the basis of many analyses (market share, exports, etc.) and supplements, in particular, the sector-by-sector analysis.

For the financial sectors, the concept of turnover is defined in the chapters dealing with these activities.

Code: 8b

Name: Intra-/extra-EC exports (part of 8)

Definition:

Exports include exports of goods and services carried out by services enterprises.

«Exports of goods include all goods whether sold or given away, which permanently leave the economic territory of a country for some destination in the rest of the world.» [source : ESA, 356]
«Exports of services include all goods and services (transport, insurance, others) provided by resident units to non-resident units.» [ESA, 365]

Comments

It is here a matter solely of exports by service units (exports of goods or of services) rather than total exports of service products, since these may be exported by units which do not belong to the services sector.

In an initial approximation the whole of the exports by the production units may be taken without distinction on a product-by-product basis; thus, this variable pertains only to activities where most products exported relate to the unit's principal activity; also, this variable pertains to a unit only if there is an invoice for a non-resident person or enterprise outside the economic territory (this is not the case for restaurants, cafés,...).

A distinction must be made between extra-Community exports and intra-Community exports.

If information about the units' exports can be obtained, on initial market shares approach will be more fruitful.

Code: 9

Name: Prices of products sold

Definition

This involves the production prices of the categories of products sold by the units.

Comments

When a product is essentially for household consumption (hairdressing, film projections), the retail price is adequate. When this is not the case, a production price observation system similar to the one used for industrial products is required. But the implementation of such an observation system is probably even more difficult here than in the case of industrial products. Some methodological progress and trials will be made in the next years.

The price indices enable the value changes to be deflated in order to obtain volume series.

Code: 10

Name: Labour costs

Definition

«All contractual, statutory and voluntary money payments made, or benefits in kind supplied, by the enquiry unit during the reference year to all its regular and temporary employees as remuneration for work done by them, including remunerations paid to home workers noted on the pay-roll; it also includes the compulsory and voluntary social charges of the employer». [Industry Handbook, VI, 8]

Comments

Labour costs include:

- gross wages and salaries (Code 10a) ;
- employers' compulsory social security contributions (Code 10 and code 10a).

Labour costs do not include allowances for relocation expenses.

Labour costs represent for the production unit the cost of salaried work during the reference period.

Code: 11

Name: Gross wages and salaries (part of 10)

Definition

«Gross wages and salaries include all money payments and payments in kind - before deduction of direct taxes and the employees' social security and pension fund contributions - dispersed by the unit to all persons counted on the pay-roll, including homeworkers, by way of remuneration for work done by them.»"
[adapted from the Industry Handbook, VI, 9]

Comments

Gross wages and salaries include: all gratuities, bonuses, "thirteenth month pay", payments made to employees in consideration of dismissal, lodging, transport, cost-of-living, and family allowances, commissions, attendance fees, as well as taxes, social security contributions and other amounts owed by the employees and retained at source by the employers.

The following should also be included: the wages and salaries which the employer continues to pay in the event of illness, accident, or pregnancy.

The following should be excluded: employer's contributions to social security and pension funds, statutory family allowances, retirement pensions, taxes paid on wages and salaries by the employer.

The total for gross wages and salaries enables the average pay rate by person or by hour worked to be established.

Code : 10b (part of 10)

Name : Voluntary social security contributions and other labour costs (part of 10)

Definition

«The value of social welfare benefits provided directly - i.e. other than from contributory schemes - by enterprises to their employees or former employees or other entitled persons, such as, for example, grants to employees in the event of an accident or a family bereavement, etc.» [adapted from Industry Handbook, VI,12]

Comments

This variable is, like the compulsory social security contributions, part of the labour cost factor during the reference period.

This variable excludes employer's compulsory social security contributions, which include employer's payments to social security schemes covering statutory, conventional or contractual contributions in respect of insurance against the risks of sickness, maternity, disablement, old age and widowhood, unemployment, industrial accidents and occupational diseases, and in respect of family allowances occupational diseases, and in respect of family allowances and employers' contributions to employees' life insurance.

This variable also excludes the employees' everyday expenses for home - work transport, expenses assigned to sport and recreation buildings and those for professional training (with the exception of remunerations for apprentices included in gross salaries and wages).

Code: 13

Name: Purchases of goods and services

Definition

«The purchases of goods and services by the production units represent the value of all the goods and services (other than investment goods), including those involving the supply of factors of production (hiring, leasing, temporary staff etc.) purchased during the course of the reference period destined either for resale in the same condition as received or after processing and incorporation into the products for sale, or for the current operation of the enterprise. Purchases which are not consumed in the reference period are stockpiled». [adapted from the ESA, 320]

Comments:

Purchases of goods and services are recorded at purchase's price exclusive of deductible VAT the amount of VAT paid by a production unit for the purchases of goods and services, and which is effectively reimbursed to the unit when the amount of VAT invoiced to clients is transferred to taxes.

Purchases of goods and services are divided as follows:

- Purchases of goods and services destined for resale, and for the further provision of services (Code 13a)

- Other purchases of raw materials and supplies, and services; these services include those involving the supply of factors of production, such as hiring movable or immovable property leasing, temporary staff, and in general all outside services purchased for own use (security staff, cleaning staff etc.).

Establishing the purchases of goods and services enables the value added to be calculated.

Code: 13a

Name: Purchases of goods and services for resale, for the further provision of services (part of 13)

Definition

Purchases for resale and for the further provision of services, subcontracting work purchased on behalf of third parties and resold.

Comments

Purchases for resale are purchases of goods for resale in the same condition as received by traders but they are also purchases of services by "invoicing" service providers, i.e. those whose turnover is composed not only of the agency fees charged on a service transaction (as in the case of estate agencies) but also the actual amount involved in the service transaction, e.g. transport purchases by travel agents.

The further provision of services includes work given to outside organizations and resold to the customers of the production unit. For example it could be the further provision of services to colleagues in the professions.

Establishing the purchases for resale and for the further provision of services enables the value of production to be determined. This is better than turnover for making significant comparisons between sectors and between production units, and corresponds to the concept of "production" in the ESA's "input-output table".

Code: 14

Name: Intangible investments

Definition

"Intangible investments are investments (see code 16) which are not tangible or financial; they relate to formation expenses and fees associated with patents, trademarks, designs, copyright, concession rights affecting the soil and sub-soil, etc." [adapted from the ESA, 3103]. Intangible investments also include immaterial investments..

Comments

A precise definition of the exact content of immaterial investments seems premature. It seems that it has now been established that these investments include at least geological and mining research, computer software and literary and artistic creation.

It should, moreover be noted that there is an ambiguity in the terms: the so-called "immaterial investments" are not necessarily included in the immaterial investments or fixed assets. This is the case for example for expenses for computer software, which from the accounting point of view are for the moment regarded as expenses in the sense of Code 13 (Purchases of goods and services).

Code: 15

Name: Fixed production

Definition

The fixed production includes "the value of capital goods manufactured or built by the enterprise itself, with its own labour force and for its own use, and major repairs carried out by the enterprise itself" [Industry Handbook, VII,a]

Comments

The fixed production is the non-sold production entered in the property account; it is valued at "cost price".

It enables the "production" in the sense of the national accounts to be established.

Fixed production can relate to tangible investment goods (e.g. railway line in the case of rail enterprises) or to intangible investments (e.g. a computer software or in the case of a film production enterprise a film) ; the first of these are included in Code 16 "Tangible investments" the latter under code 14 "Intangible investments".

Code: 15a (part of 15)

Name: Fixed production of tangible investment goods

Definition

The fixed production of tangible investment goods includes "the value of tangible investment goods manufactured or built by the enterprise itself with its own labour force and for its own use, and major repairs carried out by the enterprise itself" [adapted from Industry Handbook, VII,a]

Comment

This fixed production of tangible investment goods is part of tangible investments (Code 16) ; fixed production of intangible investments, which come under code 14, may be obtained by taking the balance of codes 15 and 15a.

Code: 16

Name: Tangible investments

Definition

«Tangible investments *are taken to include expenditure on all new or used capital goods bought from other enterprises or produced for own use (see Code 15a "Fixed production of tangible investment goods"), having a useful life of more than one year and intended for the use of the enterprise.*

Only tangible assets and property are considered (furniture, machinery and capital goods, transport equipment, construction of buildings, purchase of sites and premises,...).

On the other hand, investment in intangible assets (transactions aimed at acquiring right over intangible property) and purchases of shares and transferable securities are excluded.

This heading also includes extensions, conversions, improvements and repairs which extend the normal useful life or increase the efficiency of existing fixed capital assets. Expenditure on running repairs and maintenance, however, is not included.

Goods acquired are valued at purchase's price if they are acquired for a third party, and at "cost price" if they are producted on own account, i.e. price including installation costs and of transports and any fees and duties, but not including deductible VAT and financing costs.

For the purpose of estimating the costs of fixed capital assets produced for own use and of major repairs carried out, the expenditure is shown for the reference year, including expenditure for the construction of premises and for buildings under construction. This expenditure includes the cost of labour and raw materials and, if possible, the proportion of overheads relating to such works.

The fixed capital assets may be broken down under the following headings:

- *Land*
- *Existing buildings.*
- *The construction or conversion of buildings and other real estate. This heading covers expenditure relating to the reference year on the construction or conversion of buildings, as well as all maintenance costs for buildings and other real property which the enterprise owns or rents, excluding running maintenance costs.*
- *Transport equipment for the transport of goods outside the enterprise (vehicle pool): this heading includes all types of vehicles and boats used for the transport of goods outside the enterprise, i.e. motor cars, commercial vehicles and lorries as well as special vehicles of all types, boats, railway wagons, etc.*

- *Plant and machinery: this heading covers machinery (office machines, etc.), special means of transport used within the enterprise, other machinery and equipment.» [adapted from Trade Handbook, p. 105, 106]*

Comments

The investment made represents the resources which the production unit, in the course of the financial year, has developed directly in order to improve its production capacity. This improvement can be measured through the acquisitions, by deducting the effective value of disposals (code 17).

But the increase in production capacity can also be of an indirect nature in ie "leasing", which is not included in this variable (see Code 18).

Code: 16a (part of 16)

Name: Purchases of land

Definition

«The purchases of land include, besides land, underground deposits, forest and inland waters, but exclude any building and works situated on the land» [adapted from ESA, 399]

Comment

Purchases of land are excluded from the "gross fixed capital formation" in the national accounts, and it is therefore advisable to isolate them.

Code: 17

Name: Disposals of fixed assets

Definition

«Sales of fixed assets are valued at the price actually received (excluding VAT) and not at book value. Disposals of assets resulting from tangible investments are recorded» from both tangible and intangible investments are recorded. [adapted from the Trade Handbook p. 105, 106]

Comment

The balance of acquisitions and disposals of fixed assets enables the investment of the unit or sectors during the course of the reference year to be measured.

A distinction must be made between disposals of tangible investments (under code 16) ar disposals of intangible investments (under code 14).

Code: 18

Name: Leasing used by the units

Definition

Renting of movable, immovable or immaterial or intangible (software etc...) equipment by a service enterprise for a pre-arranged period and with an option for the customer to purchase at the residual value at the end of the contract.

- *rent paid to the leasing enterprises (part of Code 13)*
- *equipment received during the year by way of leasing operations.*

Comments

The recourse of an enterprise to a leasing operation results in an effective increase of its production capacities.

Only financial leasing is considered here, i.e. leasing by units from the NACE/Rev.1 6521.

The two variables selected for units having recourse to leasing are:

- on the one hand the total rents paid to leasing enterprises for a leasing transaction carried out during the year or beforehand, and not yet expired
- on the other hand, the value of the equipment actually received during the year by way of leasing operations; like for tangible investments (Codes 14 and 16), goods and services financed by leasing should be broken down into:
  - land
  - existing buildings
  - the construction or conversion of buildings and other real estate
  - transport equipment
  - plant and machinery.
  - intangibles.

Code: 20

Name: Gross value added at market prices

Definition

Gross value added at market prices :

	Turnover (Code 8)
+	*change in stocks (Code 30)*
-	*purchases of goods and services (Code 13)*
+	*fixed production (Code 15)*
=	*gross value added at market prices (Code 20)*

The value added is said to be "gross" because it includes the cost of capital usage (depreciation costs).

[adapted from ESA, p. 200]

Comments

Gross value added at market prices measures the contribution of the production unit to the gross domestic product. It is calculated from the balance of turnover and changes in stocks on the one hand, purchases of goods (other than fixed capital assets) and services on the other and finally from fixed production. It should be noted that changes in stocks may be positive or negative.

Besides the gross value added at market prices, it is also possible to calculate the "gross value added at factor cost" which includes operating subsidies and excludes duties and taxes other tha. VAT:

Gross value added at factor cost:

	Gross value added at market prices (Code 20)
-	Duties and taxes relating to production other than VAT (Code 28)
+	Gross operating subsidies (Code 29)
=	Gross value added at factor cost

Precise adaptations are anticipated for the financial sectors.

Code : 21

Name : Value of production

Definition

The value of production measures the amount of pure provision of service; it is defined as follows :

turnover (Code 8)

change (+ or -) in stocks of products at their producer's (Code 30a)

change (- or +) in stocks of goods purchased for resale and for the further provision of services (Code 30b)

\- *purchases for resale of goods and services, and for the further provision of services (Code 13a)*

\+ *fixed production (Code 15)*

= *Value of production (Code 21)*

[adapted from the Industry Handbook, VII,a]

In other words, it is the sum of value added and "intermediate consumption" in the sense of the "input-output table".

Comments

The turnover of the production units is an essential piece of data for production statistics; in particular, it permits breakdowns by products sold. But turnover is not always very significant in comparisons between units or between activity sectors.

In the national accounts the idea of production is used in the "input-output table". Production is worked out from turnover and a "sales-production" transition. In the enterprise statistics where "gross" data is collected it is not possible to determine "production" in the national accounts sense. So if "intermediate consumption" has a precise meaning for national accounts, it does not for enterprises.

Therefore, an intermediate value between turnover and value added has to be established in order to make significant comparisons between the units of production and the activity sectors, irrespective of the type of activity involved (commercial or otherwise), the method of invoicing or the method of accounting. There is no sense in comparing turnover per head for a supermarket and for a lawyer. On the other hand, the value of production per employee is comparable.

In order to establish the value of production, it is necessary to eliminate in each case the "purchases for resale" which are specific to each activity, and the further provision of services; in this way the idea of value of production, which includes the pure provision of services, the profit margin and the production of goods in the classical sense of the term, is arrived at. The value of production cannot be aggregated since it includes intermediate consumption (unlike value added), but it enables significant comparisons to be made between each activity and each enterprise. From this stage onwards standard techniques can be used to determine value added, gross operating surplus, etc.

It is a case, in fact, of recreating the traditional model which holds that industry processes, the trades buy for resale and services provide pure services. Extending the model to all principal or secondary activities, however, provides an accurate representation of reality in the service enterprises.

Code: 22

Name: Number of persons employed

Definition

«The number of persons employed is defined as the total number of persons who work in the enquiry unit (inclusive of working proprietors, partners working regularly in the enterprise and unpaid family workers), as well as persons who work outside the unit but who belong to it and are paid by it (e.g. commercial representatives, delivery men, repair and maintenance groups). Included are persons absent for a short period (e.g. sickness absence, paid leave or special leave), and also those on strike, but not those absent for an indefinite period. Also included are part-time workers who are regarded as such under the laws of the country concerned and who are on the pay-roll, as well as seasonal workers, apprentices and home workers on the pay-roll.

Excluded are labour forces made available to the unit by other enterprises and charged for, persons carrying out repair and maintenance work in the enquiry unit on behalf of other enterprises, as well as those doing their compulsory military service.» [adapted from Industry Handbook, VI, 1]

Comments

The number of employees should be given as an annual average of the data collected, e.g. on a quarterly basis, and also as a snapshot statistics, e.g. at the end of September.

The number of persons employed enables an initial approach to be made to the "labour" factor.

Code: 22a

Name: Number of wage and salary earners (part of 22)

Definition

«Persons who work for an employer (corporate enterprise or sole proprietorship) and who have a contract of employment and receive compensation in the form of wages, salaries, fees, gratuities, payments by results or payments in kind.» [ESA, 815]

Comments

Wage and salary earners are workers engaged by a production unit and who usually have a contract of employment and receive compensation from the production unit in the form of wages, salaries, commissions, gratuities, payment by results or payment in kind. Sometimes, wage and salary earners working for a very short period do not have a contract; nevertheless, they must be included.

A wage or salary earner of a production unit is a worker who receives a wage or salary from this production unit wherever the work site may be (in or outside the production unit): a temporary worker is considered to be an employee of the temporary work enterprise and not of the production unit (customer) in which he provides his services.

The number of wage and salary earners includes part-time workers, seasonal workers, homeworkers, persons on strike or on short-term leave, but excludes those persons on long-term leave. This statistics should be given

- on the one hand as an annual average of the data collected on a quarterly basis,
- on the other hand as a snapshot statistic, e.g. as at the end of September, in order to permit breakdowns (full-time, part-time...), which it would not be feasible to collect on a quarterly basis.

Wage and salary earners make up the most important part of the number of employees. This total is better known than that of "non-salaried"; changes in the number are linked not only to the number of enterprises but also to the level of activity; it therefore represents an important economic variable both in level and development.

Code: 22b

Name: Number of persons employed on a part-time basis (part of 22)

Definition

«Part-time workers are taken to be persons whose usual hours of work are less than the weekly or monthly number of hours normally worked in the unit concerned. This definition encompasses all forms of part-time work (half-day work, work limited to one, two or three days a week, etc.).» [Trade Handbook, p. 97]

Comments

A person can be considered, let us say, to be working part time if that person works less than 80% of the normal working week of the employing unit.

Data on part-time work could refer to the situation as at the end of September for example. This is also a snapshot statistic.

It should be noted that whereas the "full-time employee" category is relatively homogeneous, the same cannot be said of the "part-time employee" category since this can cover anything between 20% or less to 80% of the normal working week of the employing unit.

Part-time employees (duration of work less than the norm) and intermittent employees (who can work full time but for a short period: temporary workers, film production technicians etc...) should not be confused.

Code: 22c

Name: Number of female persons employed (part of 22)

Definition

The number of female employees, paid or unpaid, whatever the number of hours worked.

Comment

Data on female employees work could refer to the situation as at the end of September for example. This is also a snapshot statistic.

Code: 23

Name: Number of salaried hours worked by wage and salary earners

Definition

«The total number of hours actually worked during the reference period by all the wage and salary earners: normal and overtime hours, short interruptions of work at the workplace, hours worked on Sunday, holidays, at night, etc.» [Industry Handbook, VI, 7]

Comments

This heading excludes hours paid for but not actually worked such as annual leave, holidays and sickness leave.

Also excluded are meal breaks and travelling time to work.

The number of salaried hours worked by wage and salary earners sheds greater light on the labour factor and in the calculation of some ratios this is more appropriate than the number of wage and salary earners. The change in the number of hours worked per employee is also a useful economic variable.

If the exact number of hours actually worked is not known, it may be estimated on the basis of the theoretical number of working hours and the average rate of absence (sickness, maternity, etc.) observed.

The number of hours worked by "non-salaried persons" is a very interesting figure, but collection of this data per unit would appear to be problematic.

Code: 24

Name: Variables relating to personnel qualification levels

Definition

Wage and salary earners are differentiated in terms of executives and managers, on the one hand, and employees and service personnel on the other; for non-wage and salary earners, a distinction is made between company heads (self-employed persons, employers) and family workers.

Comments

Wage and salary earners' qualifications are quite varied and specific according to the different sectors and subsectors involved (banks, HORECA/TA, trade, etc.); breakdowns therefore have to be adapted to each sector but should, whatever the level of detail used, be based on the following two headings:

- executives and managers
- employees and service personnel, apprentices

For non-wage and salary earners, the single breakdown seems appropriate:

- company heads (employers and sole proprietors) who are treated as coming under the executive and manager category
- family workers who are treated as coming under the employee or service personnel category.

The division of executives and managers on the one hand and employees and service personnel on the other is a determining factor for wages and salaries and level of value added per person.

Code: 28

Name: Duties and taxes (other than VAT) relating to production

Definition

The duties and taxes relating to production other than VAT *«are :*

- *The consumption, excise and luxury taxes related to the goods sold or the services rendered and invoiced by the reporting unit to its clients ;*

- *all other indirect taxes related to production and paid (or to be paid) by the reporting unit, such as : taxes on motor vehicles and similar taxes on other means of transport considered as fixed capital goods, stamp duties and registration fees, taxes on land and buildings, except when these taxes constitute merely an administrative device for assessing and collecting the total income tax, taxes on insurance, official fees and charges, i.e. duties payable for specific public services, such as the testing of standards of weights and measures, provisions of extracts from the register of crimes, etc.*

Taxes on profits are, however, excluded».

[adapted from Industry Handbook, VI,29]

Comment

Duties and taxes relating to production are required for drawing up a simplified generation of income account.

It should be noted that some of these duties and taxes constitute fixed charges, e.g. taxes on land and buildings or those directly linked to production capacities, while others constitute variable charges directly linked to volumes of production during the financial year.

Code: 29

Name: Operating subsidies

Definition

«This term covers subsidies which are related to current production and paid on a continuing basis by State authorities or institutions of the European Communities to enterprises, the purpose of these subsidies being to allow adequate remuneration of the factors of production. This heading also covers export subsidies as well as interest rebates. The heading excludes tax exemptions and subsidies in the form of one-time non-repayable grants (e.g. investment grants, etc.)» [adapted from Industry Handbook, VI,30]

Comment

This amount enables the transition to be made from gross value added at market prices to gross value added at factor cost and finally to gross operating surplus.

Code: 30

Name: Change in stocks

Definition

The change in stocks (positive or negative) is the balance of the value of stocks at the end and the beginning of the financial year.

Among the stocks (and the change in stocks) the following distinction can be made:

- *stocks of products at their producer's (Code 30a),*
- *stocks of goods purchased for resale the further provision of services (Code 30b),*
- *stocks of other purchases of raw materials and provisions and services.*

Stocks are recorded exclusive of VAT.

[adapted from the Industry Handbook, VI, 19, 20, 21]

Comment

Data on stocks enables the annual flows to be supplemented (turnover, purchases of goods and services), in order to calculate the value of production, value added, and gross operating surplus. Stocks are recorded at purchase's price if they are purchased for a third party, otherwise at cost price.

Code: 30a

Name: Change in stocks held by their producer's (part of 30)

Definition

Change in value of the stocks of finished products or in the course of production, which have been produced by the unit and which have not yet been products sold ; these products include finished products made for third parties out of raw materials belong to the unit, even if the products in question are still in possession of third parties ; but they do not include goods held by the unit, which have been produced with raw materials belonging to third parties.

The evaluation of stocks of finished products is carried out by means of the cost price exclusive of VAT; it does not take account of provisions for depreciation. [adapted from the Industry Handbook, VI, 19]

Comments

Change in stocks related to production (positive or negative) can be very large, if the production cycle is longer than one year (technical study). However, in a good number of activities they are negligible or non-existent (e.g. temporary work...).

Service producers are being considered here so these stocks concern services work being done; however in exceptional circumstances these stocks can concern goods if manufacturing exists as a secondary activity.

Code: 30b

Name: Change in stocks of goods purchased for resale for the further provision of services (part of 30)

Definition

Change in stocks at purchase's prices recorded exclusive of VAT, for purchases intended for resale and for the further provision of services bought by the unit.

[adapted from the Industry Handbook, 20]

Comments

This positive or negative change in stocks enables the production value to be calculated.

Product purchased for resale and stocked by services units can just as well concern goods (industrial equipment in the case of a low "on the road" price, or construction in the case of fixed advertising) as services (advertising space, transport, accommodation).

Code : 31

Name : Gross operating surplus

Definition

The gross operating surplus thus measures :

Gross value added at factor cost (see comments of Code 20)

\- *Labour costs (Code 10)*

= *Gross operating surplus (Code 31)*

The gross operating surplus is said to be "gross" because it includes the cost of capital usage (depreciation costs).

[source : based on ESA, p.200]

Comment

The gross operating surplus measures the result of production (loss or gain) during the reference period.