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**Comments on the proposed structure for ISIC 2007 for services:  
point of view of a business statistician**

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**ABSTRACT**

*This paper, referring to the document dated 16 May 2003 "A possible structure for the revised International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4", issued by the UNO Statistics Commission, comments mainly on the following issues:*

- the structuring and the boundaries of the trade sector,*
- the information sector,*
- section 20 and services to private individuals.*

## 1. As an introduction: the benefit of aggregate classification levels

The aggregate classification levels propose a simplified representation of the world as described by the classification. Their relevance can therefore be assessed according to the analysis to be carried out. Ideally, it can be argued that each type of analysis implies its own aggregation, which puts in perspective the central aggregation, since each user is invited to develop his own groupings. But in as much as the information is not always available to the extent desired, the central classification, with its tree-structure at all levels, is very often the only tool that allows a dialogue between the various statistical systems.

The point of view of the business statistician which is put forward here to analyse the ISIC proposal is based on the following two premises:

- the level of aggregation with about ten items is primarily useful as a framework for macro-economic information, be it structural and for short-term analysis;
- the level between 20 and 30 items is useful for the analysis of semi-aggregated results, and in particular for defining sampling strata for lightweight surveys.

The statistician would therefore appreciate if this second level groups activities conducted by units as similar as possible in terms of the elements which he usually monitors. It is stated in the "concepts paper" accompanying the proposal that "the revision of ISIC will focus on the production function as a conceptual underpinning." This principle is perfectly acceptable, especially as it is stated that it must apply without dogmatism. But, in the case of services, the production function goes beyond the technique used, and it is necessary to assess proximity also according to the service provider's trade: type of relationship with customers, how the activities are carried out (size of business, self-employment or salaried, etc.).

It is tempting to conclude from the first premise that macro-economists, in particular national accountants, are best able to assess the relevance of the 9 item grouping which is proposed in § 39 and set out in the appendix to this report. This document will not therefore include an in-depth analysis of this proposal. It can however be supposed that, for instrumental reasons at least, quarterly national accounts managers (who cannot work with very detailed sectorial data) will appreciate the separation from other sectors of transport and trade (where production is analysed as a margin) and financial intermediation activities (where production is evaluated on a largely conventional basis).

In order not to increase the number of headings, at this stage it would be possible to group, for example, accommodation services with services to individuals (which furthermore, for France at least, would restore the economic balance in the size of the headings), and secondly the information sector with business services (on the grounds of the high technological content of most of these activities). Generally speaking, performance uniformity in relation to economic cycles will be assessed by economic analysts.

What we consider essential is for the sequence of divisions in the ISIC to follow a logic and to make it possible, by grouping consecutive groupings, to reconstitute the selected aggregation according to the ten or so items. Whilst obviously not essential, the order of the headings in a classification is in fact important since it very often governs the presentation of results: in this respect, it is indicative of a logical pattern.

The second premise gives great importance to the ISIC sections for the business statistician. A number of innovations introduced in the proposal appear to be quite welcome from his point of view, and will not therefore be discussed further in this document:

- abandoning the grouping of transport and telecommunications in one section, creating a section devoted to transport alone;
- creating a sector associated with information industries and a sector grouping environmental activities, which obviously relate to issues to be taken into account;
- dividing business services into two groups depending on the degree of expertise required by the services supplied and the level of qualifications required by the service providers concerned: however, it will be necessary to clarify the content of some of the items where titles are not clear: "facilities support services", "business support services", "other support services".

The proposal to set up a specific section for real estate activities and property rental and leasing is worthy of consideration. On the one hand, there is a certain logic in grouping property lease activities, particularly for industrial goods, with real estate leasing: all these lease activities share the common characteristic of making profit from a relatively large capital asset by making these assets available to others, hence also a certain similarity between the conditions under which these services are provided. From this perspective, the inclusion of real estate agents and other real estate services in the section is justified in terms of services associated with real estate leasing. On the other hand, the importance of the housing issue may justify a specific section, although excluding the property development.

The question of the relevance of a section specifically relating to repair activities arises essentially in relation to the possibility of making a relevant distinction between the manufacture and repair of industrial goods: this will not be developed in this paper which concentrates on services.

## **2. The structuring and the boundaries of the trade sector**

### *- distinction between wholesale trade and retail trade*

As far as trade is concerned, the first question arising is that of the difference between wholesale trade and retail trade. The ISIC currently makes this distinction according to the type of client: businesses for wholesale trade, private individuals for the retail sector. This client-based criterion is an operational one, which has been tried and tested, and the other criteria that could be used do not appear to offer any clear advantages.

Making a distinction according to the size of transactions (sale by batch or by unit) would be more in line with the difference in denomination of these two types of trade: but it would obviously not be desirable to include in "classical" retail trade the sale of very large or very specific items of plant which on account of their very nature are sold by the unit or in very small numbers. So, how can the boundaries be marked?

Making a distinction according to whether or not a store is open to the public seems to be unsatisfactory for some forms of trade which obviously fall under retail trade (in terms of range of products offered, of marketing, etc.), although they do not have a store: this is particularly true for mail order or Internet sales. Furthermore, the very definition of "store" can be difficult to establish satisfactorily on an international level, on account of national regulations, as well as trading practices: is a showroom comparable to a store?

Making a distinction according to whether or not the user is the end user would then involve a fundamental change in the definition of wholesale trade: this would be reduced to the part upstream of the marketing channel, and would exclude trade between manufacturers where goods are exchanged directly between the producer and the user. Now, trade between manufacturers has more common areas, in terms of the processes used, the skills and qualifications of the workforce and the customer approach, with the upstream than with the downstream of the marketing channel for consumer goods. Furthermore, in France, few businesses specialise in one or other types of customer: for half of all wholesalers, re-sale agents and professional end-users each account for more than a quarter of their sales.

On the contrary, there is a difference between business customers and private customers, which covers (or leads to) actual "job" differences within trade: we therefore consider it relevant that the ISIC should keep the client criterion in order to structure the distinction between wholesale trade and retail trade.

That having been said, it is however necessary to recognise that there is an exception to this statement: in the motor vehicle and motor vehicle parts trade, on account of the high level of vertical integration of distribution networks, as well as the similarity of the expectations of businesses and private individuals for this product, the distinction between wholesale trade and retail trade hardly applies: this therefore supports the previous decision within the ISIC to devote a separate division to the motor vehicle trade, regardless of the distinction between wholesale trade and retail trade.

*- trade of goods and distribution of services*

The second question that arises in relation to trade is whether it is necessary to continue to limit trade to the marketing of goods. At this stage, it is necessary to clarify what is meant by goods as opposed to services, particularly in the case of products associated with the information sector. The media storing information (books, disks, CD-ROM, etc.) are obviously goods. On the other hand, a telephone card (when this is sold to the customer who is going to use it to make calls) is not, any more than train tickets are goods. It is either a type of means of payment or the reservation of a right to a service. But whether this is a telephone connection or a transport service, the user can only subsequently benefit from the service if the operator ensures that the equipment is working at the selected time. On the other hand, he has control of the use of the goods that he has bought.

There are (probably to a greater and greater extent) activities which involve acting as a middleman between the service provider and a service user, this intermediation taking the form of either a previous "purchase" by the middleman, or the global invoicing of the client. It can be considered that in many ways this activity is similar to the marketing of goods: the recording of the transaction in the accounts can also be likened to practices in the sale of goods. Nevertheless, there are also sufficiently marked differences that lead us not to propose that they should be grouped.

The first reason is that it is rare for a service to be marketed exclusively (or almost exclusively) by a middleman: consequently, the final sale of the service would be spread over two different sections.

The second reason is that, in the case of goods, the function of the retail trade is to offer the consumer a selection of goods selected from a range corresponding to a more or less wide consumption function, but often independently of the industry producing the goods themselves: under these circumstances, in the vast majority of cases it would not be relevant and in any event impossible to link retail trade units with a set (even aggregated) of production activities<sup>1</sup>. On the other hand, the marketing of services is generally specific to an industry, and very often very close to it in terms of production operations, so that it may appear more relevant in an analysis of the service industry if all production and distribution activities (or a large part of it) are grouped in the same aggregation item in the classification.

One notable exception to this specialisation is the case of travel agencies, which market both transport and accommodation services, and even tickets for shows: these services relate to activities spread over three different divisions of the ISIC. Because it is (at the moment?) the only exception, we do not propose to classify travel agencies in the trade sector. But it would be better to include these with at least one of the activities of which they are an extension, rather than include them in the section of "support services", with which they have no more in common than with any other service activities.

The current situation, which groups them with transport, is tenable only if transport itself is structured to make a distinction between passenger transport (with which travel agencies would be included) and freight transport. In fact, if transport is analysed on a "by mode" basis, this means firstly considering transport activities as having as their purpose the operation of equipment: the issue of travel agencies is obviously completely different. In this case, consideration must be given to the possibility of grouping them with the hotel industry: a section combining accommodation services and travel agencies would be highly consistent in terms of the way in which the units operate and their reaction to the economic situation.

### **3. The information sector**

*- title of the section*

There is probably no longer anyone who would dispute the benefit of grouping activities relating to information. As indicated in § 22, the proposal is to include in this section "a variety of activities that are associated with the development of content and the dissemination of content in the information economy". What justifies this grouping is therefore the idea that information has to be analysed as an economic product ("content") regardless (at least in the first analysis) of its medium, and therefore

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<sup>1</sup> Note that this argument applies to a lesser extent in the case of wholesale trade.

activities exist, the economic aim of which is the processing, management and dissemination of information on the market.

With regard to the proposal put forward, our first reaction therefore relates to the proposed title "Information and communication". Firstly, this title gives equal emphasis to two notions which do not play the same part in the definition of the grouping: the idea of information is central, whilst that of communication is involved as a tool. But above all, in as much as this is a classification of activities, the title should be expected to describe an activity: now the word "information", in the sense in which it is used, does not refer to the action of providing information, but to the product managed by the activities covered by this heading.

The title "Information and communication" is taken from the Japanese classification, which justifies this by the fact that communications technology is central to the definition of the unit thus created<sup>2</sup>: the JSIC thus wished to create a grouping to illustrate "digital convergence", whilst the proposed revision of the ISIC takes as its starting point, as the NAICS does, the production and distribution of information.

The United States NAICS classification chose the title "Information": this solution has the merit of being concise and simple, but also the disadvantage of being ambiguous, as indicated above, since in an activity classification, the term refers automatically to the action of providing information, which, as has been seen, is not the meaning that we wish to promote.

The Canadian NAICS chose the name "Information industry and cultural industry" which has the merit of being a little more precise in terms of the meaning to be given to the word "Information". It is however awkward to restrict the adjective "cultural" to this grouping which covers only some cultural activities; the distinction between cultural industries and other cultural activities (if it exists in the spirit of the classification compilers) is in fact quite subtle.

Finally the name which is both the simplest and the most meaningful for this section would be something on the lines of "Publishing and processing of information" (or "production, distribution and processing of information"): without being completely exhaustive in terms of the activities covered, this title would have the merit of drawing attention to what had been considered central when building this section.

*- the structure of the section*

The information sector, as proposed, covers three types of service:

- information producing activities ("content" activities),
- information processing activities,
- service activities producing tools for information processing.

More precisely, information producing activities are all those which lead to the creation, publishing and dissemination of a content. Information processing activities are telecommunications, data processing data and database activities. Activities which produce processing tools are hardware and software consultancy, the development of customised software, and software publishing. The inclusion of software publishing in this sector must in fact result not only in practice but also in principle in the inclusion of hardware and software consultancy and of software development.

If telecommunications are included in this section devoted to information, this is on account of their role of transmitting content: strictly speaking, telephony (communication between individuals) does not fall within the scope of this section, although in France it still represents almost two thirds of the total turnover for telecommunications. This comment is not intended to propose the dividing of

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<sup>2</sup> "The arrangement of sub-sectors of NAICS Information starts from information and cultural products, while JSIC Information and Communications arranges its major groups starting from communications, or means to transmit or distribute these products ? thus, named "Information and Communications", in Japanese ICT Statistics and New JSIC with the Information and Communications Division, Hiroyuki KITADA, 17<sup>th</sup> Voorburg Group meeting, 2002

telecommunications activities into two separate sections, but to clarify the reasons behind the definition of the boundaries for this section.

Similarly, a certain porosity, not only of the units but of the information activities themselves, between consultancy and production on the one hand, between development and maintenance on the other, argues in favour of a structure of the section based not on the three functions referred to above, but on the following:

- content industries
  - publishing (apart from processing software)
  - motion picture and video activities
  - radio and television activities
  - other information services (including press agencies)
- telecommunications
  - telephony services
  - Internet service providers and web search portals
  - other telecommunication services
- computing
  - data processing
  - databank activities
  - software publishing
  - other software production activities
  - hardware and software consultancy

If the idea of identifying these three divisions explicitly is not adopted, the sequence of the headings should at least be arranged so as to list the three different types of activity in order, which is not the case in the proposal put forward. The content of the item "other information services" should in particular be reserved exclusively for content development or content distribution services.

Furthermore, it does not seem to be operational to distinguish Internet publishing and Internet distribution from other publishing and distribution channels, in as much as the two modes can now (and most probably this will still be true in the future) be provided in parallel within the same activity.

#### **4. Section 20 and services to private individuals**

In the proposal (§ 33), the following comment refers to section 20 "Other services": "This grouping is a residual for services that do not fit any of the possible tabulation categories listed in this paper." This definition is problematical from several points of view. In terms of principles, it is not satisfactory to have an item entitled "other" in such a highly aggregated level of classification. A "remainder" item means that the classification compilers have not managed to find distinguishing criteria to favour allocation to one item or another. As a result, when classifying a new element not explicitly considered at the outset, there may be the temptation to place this in "other", without further thought, hence a poorly-managed heterogeneity, not only for this item, but also for others. Thus, for one item of the twenty proposed, no interpretable information will be available, leading to the risk that the results for other headings will not be completely relevant.

It is understood that on the most detailed level of the classification, headings such as "other" or "not included elsewhere" are inevitable for practical reasons: but that hardly seems acceptable on an aggregated level. If the logic underlying the definition not only of section 20 but also of all other sections is mastered, it should be possible to positively identify the common ground between the activities that it is proposed to group in this section, and to find a name for it.

The question is therefore one of firstly identifying this common ground. In the current proposal, section 20 covers associative activities and "other service activities". The criticism made for the sections is still valid on a division level: it is not satisfactory either to read that this last item is defined explicitly (and not only in its title) as a residual item: "This division serves as a residual division of all services not classified in one of the preceding sections". Especially as it is indicated above that this division corresponds to item 812 of the NAICS "personal and laundry services": if this is the case, it is completely appropriate for division 20.2 to have this same title.

It therefore remains to find the common ground between cultural associations, charity associations, trade unions, professional organisations, hairdressers, funeral activities and laundries. Most have the common characteristic of relating closely to the private lives or everyday activities of private individuals, with the notable exception of professional organisations. The most satisfactory solution would therefore be to remove professional associations from section 20: these associations could quite legitimately be placed in section 13, since their vocation is to produce services requiring a certain expertise (studies, consultancy, lobbying, etc.) for the benefit of their members.

The inclusion of professional organisations in this sector is apparently due to the parallel drawn between protecting the interests of businesses and protecting the interests of salaried people. In effect, it is true that professional organisations and trade unions do undertake activities of the same type to some extent, in particular as far as studies are concerned. But this common ground should lead to their inclusion in section 13. If the aim is to keep trade unions in division 20.1 with learned societies and membership organisations of general interest, it is then because of the extent of the personal and voluntary commitment of the members of these institutions: from this point of view, professional organisations, the members of which are essentially businesses, operate very differently.

In France at least, but probably in many other countries, the economic weight of sections 19 and 20 is relatively low compared to that of other sections proposed. Under these circumstances, we propose combining these two sections in one section with the following structure (after having taken out professional organisations):

19	Services to private individuals
19.1	personal and domestic services (formerly 20.2)
19.2	artistic, cultural and recreational activities (formerly 19)
19.3	activities for membership organisations (formerly 20.1 excluding professional organisations)

## 5. The danger of words

Drawing up a classification involves using words to describe the classified objects. The exercise is all the more difficult for an international classification since it has to stand the test of translation. For this reason it is important to define headings analytically and avoid basing them on a name only. Two examples are considered below.

In France, the word “discothèque” means an establishment subject to the regulations applicable to organisers of shows, to which people go to dance and/or listen to music: discotheques are therefore the main concert venue for techno music. In terms of working conditions, admission of the public, location and management of premises, these establishments are above all places for dancing and for shows: even if drinks are sold there, they have little in common with bars and cafés, unlike “theme bars” or “music cafés”, where music accompanies the serving of drinks.

Under these circumstances, we would obviously like “discotheques” to be classified in the section for recreational and cultural activities, and not with restaurants. But it can be seen that, in the debate that could be opened up on an international level on the question of the classification of discotheques and nightclubs, it is important to check that these words apply to the same object in different countries.

The second example is that of laundry. The proposal put forward includes industrial laundry in section 20 “Other services”. On the other hand, industrial cleaning is classified under section 14 “Administrative and support services”. Therefore, depending on whether it is a question of cleaning a rug in the workshop or a carpet in situ, the activity will be classified in one or other section: now the procedure used is technically the same in both cases. This classification difference appears to indicate that in the case in question, the similarity between industrial laundry and retail laundry has been considered a priority: certainly, the name and function are in principle the same. But the conditions governing the activity of industrial laundry and retail laundry are fundamentally quite different. If two different generic terms had been used for these two activities, would the decision not have been taken (which we consider preferable) to classify industrial laundry in section 14 (with industrial cleaning) and retail laundry in section 20?

## Appendix

Extracts from the document "A possible structure for the revised International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4" (§ 43)

### Main groupings (§ 39)

- 1 Agriculture, hunting, forestry, fishing
- 2 Mining and quarrying
- 3 Manufacturing, repair, electricity, gas and water; waste management
- 4 Construction
- 5 Transport, trade, accommodation and food services
- 6 Information and telecommunication
- 7 Services to business and financial intermediation
- 8 Services to persons
- 9 Public administration and defence; compulsory social security; extraterritorial organizations

### Sections for services (§ 43)

- 4 Repair and maintenance**
  - 4.1 Repair and maintenance of transport equipment
  - 4.2 Repair and maintenance of personal and household goods
  - 4.3 Repair and maintenance of machinery and equipment
- 7 Trade**
  - 7.1 Wholesale trade
  - 7.2 Retail trade
- 8 Accommodation and Food services**
  - 8.1 Accommodation
  - 8.2 Food services
- 9 Transportation and storage**
  - 9.1 Land transport; transport via pipelines
  - 9.2 Water transport
  - 9.3 Air transport
  - 9.4 Scenic Transportation
  - 9.5 Supporting and auxiliary transport activities
  - 9.6 Postal and courier activities
- 10 Information and communication**
  - 10.1 Publishing activities (except Internet)
  - 10.2 Motion Picture and sound recording activities
  - 10.3 Broadcasting (except Internet)
  - 10.4 Internet publishing and broadcasting
  - 10.5 Telecommunications
  - 10.6 Internet service providers and web search portals
  - 10.7 Other information services
- 11 Financial and insurance services**
  - 11.1 Financial intermediation, except insurance and pension funding
  - 11.2 Insurance and pension funding, except compulsory social security
  - 11.3 Other financial services
- 12 Real Estate, rental and leasing activities**
  - 12.1 Real estate
  - 12.2 Rental and leasing
  - 12.3 Leasing of intangible assets (except copyrighted works)

- 13 Professional, Scientific and Technical Services**
  - 13.1 Legal services
  - 13.2 Accounting services
  - 13.3 Architecture and Engineering services
  - 13.4 Technical testing and analysis
  - 13.5 Computer Services
  - 13.6 Management and management consultancy services
  - 13.7 Research and development
  - 13.8 Advertising services
  - 13.9 Other professional, scientific and technical services
- 14 Administration and support services**
  - 14.1 Office administrative services
  - 14.2 Facilities support services
  - 14.3 Employment services
  - 14.4 Business support services
  - 14.5 Travel agents, tour operators and other reservation services
  - 14.6 Investigation and security services
  - 14.7 Services to Buildings and Dwellings and Industrial Cleaning services
  - 14.8 Other Support services
- 15 Public administration and defence; compulsory social security**
  - 15.0 Public administration and defence; compulsory social security
- 16 Water supply; sewage, waste management and remediation**
  - 16.1 Water collection and supply; sewage
  - 16.2 Waste treatment and disposal
  - 16.3 Remediation activities
- 17 Education**
  - 17.1 Education
  - 17.2 Education support services
- 18 Health and Social Services**
  - 18.0 Health and Social Work
- 19 Arts, entertainment and recreation**
  - 19.1 Dramatic arts, music and other arts activities
  - 19.2 Museums, historical sites, botanical and zoological gardens and nature reserves
  - 19.3 Gambling and betting activities
  - 19.4 Other entertainment and recreation activities
- 20 Other Services**
  - 20.1 Activities of membership organizations
  - 20.2 Other service activities