

FRENCH NATIONAL COUNCIL FOR STATISTICAL INFORMATION

Working Group on

**Structural statistics based on enterprise groups  
and subgroups**

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### **Summary of draft report by CNIS Working Group on structural statistics based on enterprise groups and subgroups**

Enterprise groups play a central role in today's economy. Yet they are not directly incorporated into the preparation of key business statistics, particularly structural statistics on activity sectors. Thus the fact that firms are structured into groups does not have a direct impact on the main statistics currently produced. Does this mean that the organizational dimension of the "group" has no implications that should be taken into account in compiling economic statistics?

**The Working Group therefore concentrated on the following questions: (1) To what extent, and for what statistical uses, is the apparent contradiction mentioned above actually a hindrance? (2) Is there an alternative strategy for observing economic reality and hence for taking it into account that can overcome this contradiction?**

*Part I of the report seeks to assess the limits of today's official business statistics.*

These limits exist only with respect to the uses of the statistics and to the needs expressed. Through a census of the main uses—both direct and indirect—we can characterize their different dimensions, often complementary but sometimes contradictory. Alongside macroeconomic approaches, users express needs for detailed knowledge of branches, but also for a better characterization of the actors. The need for international comparisons coexists with demand for territorially-based analysis. Respondents also emphasize relatively new needs for information on innovation, R&D, and the environment, but also on new forms of enterprises.

A major phenomenon is that these needs are voiced in a fast-changing economic environment. The focus is on the international component of the activity of leading economic players. The latter—above all, enterprise groups—are primarily global actors, who regard themselves and organize themselves as such. Consequently, the national territory is no longer necessarily the main dimension in the analysis of their activity.

At the same time, groups are complex and diverse organizations, behind which it is sometimes hard to perceive the firm as an economic actor. The report briefly recalls the different economic approaches to the firm (O.E. Williamson and others), particularly in the "market" and "hierarchy" dimensions<sup>1</sup>. We stress that the economic approach to the firm is rather distant from its legal or statistical definitions.

We go on to comment on the viewpoints of the main witnesses auditioned by the Working Group. Their main belief, as expressed in the interviews, is that the naturally meaningful economic actor is the group or subgroup, not the subsidiary.

Part I concludes that a gap exists between (1) the new dimensions of the economic environment and the organizational structures set up by leading economic actors, and (2) the statistical system's strategy for observing these realities, which is based solely on the firm (company) in the legal sense. This gap undermines the statistical system's capacity to fully satisfy current needs for economic information.

*Part II explores potential pathways for improvement.*

New concepts are needed. The three candidate units for statistical observation are: the firm, the group of firms, and the group's operating division (more homogeneous in terms of activity than the group itself). Each corresponds to an actual dimension of the enterprise, respectively a legal base, a fully autonomous operating unit, and an entity linked to a product market. While the "legal" firm, by construction, exists only on a national basis, the other two exist independently of the national concept.

Some enterprise networks resemble groups, except for the absence of majority shareholder control. Because of their high integration and stability, certain networks could thus be equated with groups for

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<sup>1</sup> To use Williamson's terminology.

statistical-observation purposes. For networks, therefore, the issue at stake goes beyond the necessary response to current demand for fuller knowledge and closer tracking of the networks themselves, in particular to assess market share or sectoral concentration accurately.

The main advantage of the legal firm as statistical unit is simplicity of observation: this goal is served by the accounting, tax, and (more generally) administrative obligations placed on firms—obligations that generate a very rich information system.

While of a slightly different nature, the information systems centred on groups—particularly consolidated accounting—are well-developed. There are many communication requirements, including the publications demanded by the French Financial Markets Authority (Autorité des Marchés Financiers: AMF) or, more simply, legal announcements (*publications légales*). IASs/IFRSs<sup>2</sup> also create new obligations that can facilitate statistical use of groups' financial information. IAS 14, for example, requires groups to report their different activities separately. Meanwhile, initial test projects have been conducted in recent years on the profiling of selected groups. They have yielded encouraging results as to the possibility of defining with the groups themselves the most relevant entity for observing their activities—an entity for which the desired information is available.

In conclusion, our report finds that business statistics could take enterprise groups into account in two complementary ways, corresponding to two distinct levels of analysis:

To describe economic activity, particularly as regards production of goods and services, the most appropriate statistical unit seems to be the group's operating segment (or the group itself when it is engaged in a single activity).

To describe the behaviour of economic actors themselves—their development, financial, or geographic-location strategy—the most relevant statistical unit is the total group itself.

In either case, a group subsidiary, as a legal entity, would no longer be regarded as the relevant observation unit of necessity and by definition.

To meet the main needs of official statistics and European Union (EU) statistical regulations, the statistical units above will need to be linked to their corresponding territorial entity—a process known as truncation—as the statistics to be prepared chiefly concern French territory.

Several simulations have been conducted to show the impact of such a choice of statistical unit for selected statistics. The representation of the French economy would not be radically transformed, although some inter-sector transfers would occur. The weight of the main economic players would obviously increase. Moreover, to validate such a shift in observation strategy would require making backcast series available to users. At the same time, the very definition of small and medium-sized enterprises (SMEs) would surely need to be reformulated in order to incorporate the notion of autonomy.

***Part III discusses the management of consistency requirements in the French system as a whole, and of comparability over time and on an international basis, if the proposed new statistical units are adopted.***

The concern for overall system consistency applies, first of all, to (1) the internal consistency of structural statistics and (2) the desirable consistency between the main structural statistics and sub-annual statistics. In the latter area, "consistency" should be taken to mean the compatibility of messages delivered by the various statistics. Overall structural consistency should be easily achieved by using the same new statistical units. We can draw an identical conclusion for structural/sub-annual consistency, which could improve as a result.

The report stresses the need to develop a statistical register. Accessible by the entire official statistical system, it would ensure that the same defined range of units would be used in each application, without omission or double counting. The very fact that tomorrow's statistical units would diverge from legal units in the strict sense makes it essential to prepare such a register.

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<sup>2</sup> International Accounting Standards and International Financial Reporting Standards.

The international regulatory framework for national accounts is a powerful constraint that limits the scope for change at the national level. Initially, it is in the aspects regarding the measurement of production that national-accounting regulatory constraints would oblige the business-statistics system to supply additional information as soon as the switch to the new units became effective. One could implement solutions at reasonable cost, particularly for the enterprises themselves; but we should also stress that the introduction of the new statistical units would enhance the relevance of other information produced by national accounting.

Users voiced great concern about comparability in the EU and beyond. The specific economic, statistical, and administrative features of different national systems are such that the use of the legal unit as the central statistical unit does not necessarily ensure comparability. It is probable that the integration of groups, as proposed in this report, will strengthen comparability *de facto*, as the definition of the central statistical unit will be based more heavily on economic criteria than before. Moreover, other Member States (United Kingdom and Netherlands) already use such statistical units.

*Part IV discusses communication issues. The general conclusion of the report sets out the Working Group's recommendations.*

To implement such a change in the strategy for observation of economic entities, with the breaks that it will entail in statistical series, calls for an organized communication effort. The terms used will require special attention: they must be as consistent as possible with conventional language and the terms used by the main actors in the business world, and be sufficiently precise to enable all users to understand how business statistics are prepared.

*The report concludes with nineteen recommendations.*

The main recommendations concern the two new statistical units that should be introduced into business-statistics system tomorrow. By enabling the system to effectively take account of the "group" dimension, the change would guarantee the greater relevance of the statistics.

The two units correspond to the two complementary levels of analysis that seem necessary to describe economic activity and its players today. Of the two levels, the intermediate level—i.e., the groups' operating segments (or the group as a whole when it engages in a single activity)—is the one that would be most relevant to the main statistics and best suited to EU regulatory requirements.

The conclusion makes special mention of the distinctive features of networks, such as their resemblance, in certain ways, to the enterprise-group organization model.

Lastly, the report emphasizes the need to ensure an identical statistical offering at the local level. Identical guarantees will need to be provided regarding confidentiality issues.

## Part I: Limits of current business statistics

### 1. Main uses of official business statistics

To produce a sufficiently thorough assessment of the need for coverage of enterprise groups in structural statistics, it is important to describe what user expect from structural statistics, and then to determine whether coverage of enterprise groups can enhance the relevance of business statistics, i.e., offer better answers to users' questions.

#### 1.1 The need for structural statistics

The French National Council for Statistical Information<sup>3</sup> is the forum where economic and social partners, as users of official statistics, can voice their expectations.

##### 1.1.1 CNIS opinions

CNIS, through its "Production System" Task Force, focused its attention on enterprise groups in 2002 on the occasion of the presentation of the work carried out by a Statistics Group at the behest of the French Planning Office (Commissariat Général du Plan). The Group assisted in the preparation of a report by D. Plihon entitled *Profitability and risk in the new growth regime*. As recommended by the "Production System" Task Force in November 2002, CNIS decided to set up a Working Group on structural statistics based on enterprise groups and subgroups.

A study on the profitability of French firms by a Working Group at the Planning Office identified various information-related problems. D. Plihon referred to them as follows in the Group's final summary statement<sup>4</sup>:

*The report examines the behaviour of French and U.S. stock markets, stressing the crucial role of economic and financial returns as key variables of economic activity. Paradoxically, their measurement suffers from acute confusion.*

[...]

##### *Two complementary sources of accounting information*

Consolidated financial statements by companies listed on the stock exchange have become a vital instrument for analyzing the performance of industrial and commercial groups with complex structures and variable scopes of consolidation. Through the subsidiaries they control, large corporations hold assets and debt of variable quality. The challenge for consolidation is to transcend the mesh of inter-company links and offer an overview of their balance-sheet structure. There remains the difficult task of macroeconomic aggregation.

The use of consolidated accounts for economic analysis is still in its infancy. With the support of the Bank of France and INSEE, the Working Group formed by the Planning Office has defined two goals.

1. To make systematic use of the consolidated financial statements of the large corporations listed on the U.S. S&P 100 and the French CAC 40 from 1985 to 2001. The definition of long-term performance indicators for major corporations listed in the benchmark indices is a novelty and, moreover, improves the comparability of French and U.S. data.

2. *To integrate the performance of listed corporations into the broader framework of national accounting. Adequate reprocessing of the data can promote a better convergence between market information and macroeconomic data.*

<sup>3</sup> Conseil National de l'Information Statistique: CNIS.

<sup>4</sup> See "expert's note" (*note d'expertise*) summarizing the report of the Working Group chaired by D. Plihon [http://www.plan.gouv.fr/intranet/upload/publications/documents/rentabilite\\_et\\_risque\\_regime\\_de\\_croissance.pdf](http://www.plan.gouv.fr/intranet/upload/publications/documents/rentabilite_et_risque_regime_de_croissance.pdf)

The statistical examinations conducted by this Working Group were presented to the CNIS “Production System” Task Force in autumn 2002, and the Council issued the following opinion:

*CNIS supports work undertaken to achieve a closer integration of enterprise groups into the statistics produced on the production system, by making the group the relevant statistical unit for analyzing certain structural issues such as profitability in a European framework.*

After praising the investigations carried out by the Planning Office’s Working Group, the Council wishes to widen the consultation via an *ad hoc* Working Group under the aegis of the “Production System” Task Force, so as to make sure that the statistics produced effectively meet user needs.

The broadest survey of expectations was compiled during the preparation of the 2004-2008 medium-term programme of the official statistical system. The programme singled out the role of enterprise groups as a topic for special further study.

The CNIS expressed very clear support for the project in its “general opinion” (*avis général*) no. 17:

*The Council supports the principle of giving a substantially larger place to groups and enterprise networks in the future preparation of certain statistics for which they seem to be the most relevant units of analysis. The Council notes that several methodological refinements are still required in this area. It also emphasizes the need for a statistical register of groups in the EU in the medium term.*

The Council supplemented this opinion by two others concerning statistics on manufacturing, the food sector, and energy:

*The Council encourages further tests on the determination of scopes of consolidation in large enterprise groups, which should allow a higher-quality tracking of their economic activities via units redefined as above; the Council wishes to see these tests conducted in close cooperation with the groups themselves.*

*Pursuant to the view on groups and enterprise networks expressed in its general opinion<sup>5</sup>, the Council expects an improvement in the availability of information on the globalization of the French economy in its two dimensions, i.e., the activities of foreign groups in France and the activities of French groups abroad.*

Regarding statistics on wholesale/retail trade and services, the Council issued another complementary opinion:

*The Council approves the overall approach that consists in incorporating groups into the description of the statistical system. It notes that this approach may involve partial consolidations, and may therefore lead to treating as transparent entities certain legal units whose activity is confined to performing auxiliary service functions in an enterprise group.*

In a separate development, during the preparation of the 2005 work programme, CNIS decided to include statistics from the survey on the intangible economy, supervised by the interdisciplinary Task Force on “business statistics.” From consultations with representatives from firms, it emerged that the inclusion of the “enterprise group” dimension was essential in this area. The Council issued the following opinion on the subject:

*The Council expresses its great interest in the survey on ways and means of managing intangibles, a survey covering all economic sectors, which will help significantly to improve our knowledge of an area of strategic importance for the competitiveness of the economy. It is carried out among enterprises and enterprise groups. In particular, the survey is the first large-scale implementation of the wish expressed by the CNIS plenary assembly to “give enterprise groups a greater role in the preparation of certain statistics for which they appear to be the most relevant units of analysis”. [...]*

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<sup>5</sup> Quoted above (Opinion no. 17).

### 1.1.2 Contribution of the present Working Group to the subject

At its November 2004 meeting, the CNIS executive committee finally decided to set up a Working Group on “Structural statistics based on enterprise groups and subgroups”, appointing E. Salustro as its chairman. The Working Group held its first plenary meeting in April 2005, where its division into five subgroups was approved (terms of office, chairman, and rapporteurs)<sup>6</sup>.

In the course of its proceedings, the Working Group spelled out user expectations in several areas.

The Working Group underscored the need for statistics reflecting business size and specified its understanding of the term “enterprise”, namely, a player with strong decision-making power in regard to its economic choices. It also emphasized the need to differentiate enterprises according to their mode of governance, highlighting special subpopulations such as listed companies and family businesses. User representatives also reasserted the relevance—in 2007—of distinguishing enterprises by nationality, as globalization has not eliminated the relevance of nationality.

It also reasserted the need for significant categories of users, particularly industry organizations, to have information about the weight and economic activity of industry branches, for which statistics on firms classified by sector are accepted as satisfactory approximations.

By contrast, subsidiaries—notably those controlled almost exclusively by a single group—are not regarded as fully-fledged enterprises. In particular, firms that constitute a legal outsourcing of basic functions of any enterprise (personnel management, IT, accounting, etc.) are perceived as not directly comparable with enterprises that are truly active in the market, i.e., that sell their products to unrelated legal or natural persons. The inclusion of group subsidiaries as independent entities in ranking tables<sup>7</sup> is thus viewed as wholly inadequate.

Besides this need to take account of the role of enterprise groups, which connect firms through shareholding or business-control, users add that it may be necessary to group together inter-firm links of another kind, which engender what are called *networks*.

### 1.1.3 Indirect users

While structural statistics supply information to direct users, they also provide inputs to other user systems after various restatements. One example is the national accounts, which make business information consistent with other types of information; a second example is sub-annual statistics, for which structural statistics typically provide a reference framework for weighting and benchmarking. Structural statistics also contribute to the preparation of EU business statistics, through aggregation of information from each Member State, and they feed international comparisons, mainly via OECD statistical databases. The indirect users whom we have met in the Working Group strongly emphasized the importance they attach to the consistency of these statistics<sup>8</sup>. In particular, they demand a reasonable consistency between structural statistics and national accounts.

## 1.2 Structural statistics to describe the main aggregates

### 1.2.1 Macroeconomic aggregates

The main goal here is to describe the major macroeconomic aggregates—such as production, turnover (sales), and value added—at an aggregate classification level (of the NES36 type<sup>9</sup>). Concerning aggregates intended as a basis for “market equilibrium” analysis, the Working Group found that:

Users do not spontaneously realize that today’s statistics also document intra-group flows, except for external trade, a subject on which the official statistical system has already conducted surveys. Users believe that these intra-group flows may interfere with certain analyses.

<sup>6</sup> See Annex 9 to French edition of this report.

<sup>7</sup> I.e., rankings of the leading players, for example by sector or export volume.

<sup>8</sup> To be precise, two statistics are said to be consistent if they deliver compatible messages.

<sup>9</sup> NES: Nomenclature Économique de Synthèse, the aggregated French classification of economic activities.

When the connection between the physical organization of enterprises and the production of statistics is pointed out, users declare that they are not very interested in these intra-group flows.

By and large, this argument seems to have had very little impact on the macroeconomists' community.

### **1.2.2 Branch-specific aggregates**

Users of highly disaggregated information on enterprises (level 100 and especially 700 of the classification) take a special interest in branches of activity (*branches d'activité*). Unfortunately, for lack of full economic information on enterprise segments (*branches d'entreprises*), they use sectoral information as approximations that are adequate to the extent that the enterprises concerned display low diversification and "branches" and "sectors" are similar groupings. In the industrial sector, statistics on the subject are also prepared at a sub-annual frequency. In the wholesale/retail and service sectors, they are only annual, and are prepared for presentation to the national accounting system's "sectoral commissions" on wholesale/retail and service-sector accounts.

The interest in branch statistics reflects broader concerns about production activities, market supply through resident or non-resident production, the measurement of demand levels, and activities involving resale of the resulting products "as is" or sales by principals outsourcing production to subcontractors. In this connection, some statistics users believe that while intra-group flows are not among the flows that influence the market in the short term, they can involve the market in the medium term through the outsourcing of the corresponding activities or through a quest for diversification that consists in performing these activities not only inside the group, but in the market.

For this purpose, users express a wish for information on intra-group flows, which could be prepared at a multi-annual frequency.

### **1.2.3 Aggregates relating to special topics**

Structural statistics on certain topics such as energy consumption, innovation, research and development, and the environment reflect different approaches to the macro- or mesoeconomic analysis of business competitiveness. Specific analysis is needed to determine the relevant choice for representing economic actors in these fields.

The Working Group has not explored this subject.

### **1.2.4 Aggregates relating to non-financial sectors**

For lack of time, the Working Group confined itself to the non-financial sectors of the economy. Some of the arguments and observations probably apply to financial sectors as well.

For example, thanks to the periodic census of enterprise groups, we know that banking and financial enterprises are also heavily structured into groups.

But this hypothesis deserves to be studied with the statistical offices that have competence in the area, and making allowance for these sectors' accounting standards, which are different. We should also use the information compiled for the prudential control of these sectors, which is without equivalent in non-financial sectors.

The Working Group nevertheless determined that a change in the reference statistical units for describing the enterprise could marginally alter the boundary between actors in the non-financial sector and actors in the financial sector, since some industrial enterprises have subsidiaries engaged in activities subject to banking supervisory authorities (such as consumer credit) and, conversely, some financial-sector players may have spun off support activities such as IT-systems management, which, strictly speaking, belong to the non-financial sector.

### **1.3 Structural statistics to describe enterprise populations and their diversity**

#### **1.3.1 Distinguishing between special subpopulations**

##### **1.3.1.1 Distinction by size class**

It is well known that the behaviour of enterprises is rather strongly determined by size, and statistics users routinely confirm this phenomenon by examining statistics broken down by enterprise size class. The most frequent distinction is between Very Small Enterprises (VSEs), Small and Medium-Sized Enterprises (SMEs), and large enterprises. Participants at the Working Group reasserted the need for continued availability of size-class statistics. The Working Group directly addressed the subject of the choice of relevant size. The Group concluded that the size of firms themselves is not necessarily the variable regarded as the most relevant, and that the size of the group of companies as a whole was a better choice in many cases.

##### **1.3.1.2 Distinguishing subpopulations on criteria of a more sociological type**

Participants restated the importance of specific subpopulations representing strong social entities such as the craft industries. A study group has already examined the issue with representatives of enterprises and the Directorate for Enterprises in the Wholesale/Retail, Artisan, and Service Sectors and for the Professions at the French Ministry in charge of SMEs.

#### **1.3.2 The study of concentration**

In close correlation with the previous remarks, the Working Group concluded that, when studying the concentration of resident producers in an activity sector, one could not regard subsidiaries of the same group of companies operating in the same sector as independent entities. For a meaningful analysis, one should take account of a group's total activity in a given sector.

#### **1.3.3 Distinguishing between subpopulations on territorial-analysis criteria**

Some Working Group members stressed the abiding need for statistics on the economic activity of enterprises at the local level, regardless of the decision-making level in enterprises organized as groups of firms, even in the case of multinational enterprises.

### **1.4 Statistics for making international comparisons in globalized economies**

The two Working Group subgroups on "*groups, subgroups and globalization*" and "*groups and firms in sectoral and macroeconomic economic analysis*" identified a dual need:

Given the obvious globalization of the French economy, there is a clear need for fuller statistics on cross-border activity.

Nevertheless, even non-government users reiterated the considerable and enduring need for statistics on economic activity on national territory, and participants reasserted the need for comparability with statistics on France's main economic partners.

### **1.5 Statistics to describe changes over time**

Structural statistics are very often used to analyze changes in the economy, and they are generally the most reliable type of statistics for measuring annual changes. Moreover, users very often need series that measure changes on a like-for-like basis, i.e., disregarding the restructuring of economic actors.

Working Group participants confirmed this situation and emphasized their concern that the introduction of new statistical units to describe enterprises should not deprive them of the possibility of accessing information on changes on a like-for-like basis.

## **2. The market economy in a globalized, fast-moving world**

Economic flows at the global level have intensified and national economies have become more interdependent.

International enterprises make decisions by observing economic events at world level and locate their activities in places where they will generate the highest profits. Accordingly, mergers and acquisitions at the global level have intensified in the past decade.

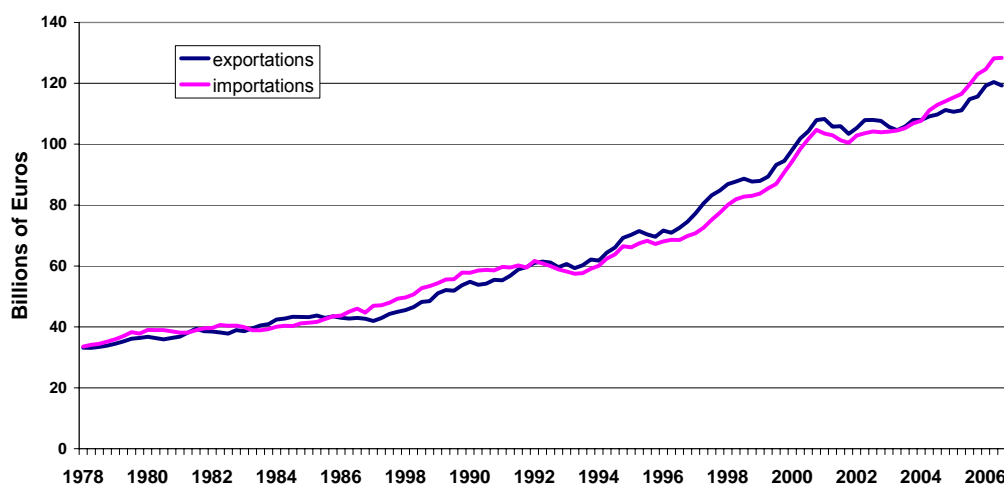
## 2.1 A macroeconomic analysis that requires an approach not restricted to France's geographic boundaries

The intensification of flows—particularly through the opening of international trade—and the globalized profile of the main economic actors mean that macroeconomic analyses must also incorporate the actors' global component. For example, to assess the vibrancy, strengths, and weaknesses of a given French economic sector that is largely globalized (such as motor vehicles, aeronautics, and chemicals—to confine our examples to manufacturing industries), we must also measure the performance of foreign subsidiaries of French groups in these sectors.

## 2.2 Cross-border markets in goods and services

External trade in goods and services has intensified in the past ten years. We can distinguish three phases (see chart below), each characterized by a steeper growth rate than the previous one: 1978-1985, 1985-1993, and 1993-2005.

Nominal imports and exports of goods and services, 1978-2006



This pattern is notably due to the reshaping of the world economic landscape, as international firms have forged close ties with their subsidiaries abroad. The expansion of international trade no longer merely reflects the conquest of new national markets by “non-residents” but also an increasingly globalized organization of production: the main purpose of locating production in a given country is not always to supply that country's market.

A large share of international trade consequently takes place within these multinational firms, between subsidiaries located in different countries or between the parent company and its subsidiaries. A 1999 survey by SESSI<sup>10</sup> on intra-group international industrial trade showed that 41% of French exports and 36% of French imports consisted of intra-group flows.

Few French enterprises are involved in international trade in goods and services: in 2004, only 160,000 firms imported or exported goods. Most imports and exports are handled by multinational

<sup>10</sup> Service des Études et des Statistiques Industrielles, the Office of Industrial Studies and Statistics at the French Ministry of Industry.

enterprises: in 2004, according to data collected by DGDDI<sup>11</sup>, 88% of goods imports and 91% of goods exports were handled by French- or foreign-controlled multinational enterprises.

### 2.3 Financial markets—particularly stock markets—are global

The value of listed companies is set on financial markets that are fully globalized on both the supply side and the demand side.

On the supply side, companies listed on the same market are not necessarily of the same nationality, and may even have a very limited economic activity in the countries where they are listed.

On the demand side, buyers are not necessarily residents. Non-residents may even be substantial players in the national market in volume terms. A large proportion of shareholders may be non-residents. For example, the Bank of France's Balance of Payments Directorate estimates that non-residents own about 40% of the equity of companies included in the Paris CAC 40 index<sup>12</sup>.

Regulations on financial information about listed companies are now harmonised at the EU level. The long list of EU documents standardizing EU financial-market operations<sup>13</sup> includes *Commission Regulation (EC) No. 809/2004 of 29 April 2004 implementing Directive 2003/71/EC of the European Parliament and Council as regards information contained in prospectuses as well as the format, incorporation by reference and publication of such prospectuses and dissemination of advertisements*. The underlying accounting rules are international as well (International Financial Reporting Standards: IFRSs). Most obstacles to investment by non-residents having been lifted, financial markets are now practically unified, as witnessed by the strong correlation of movements in the benchmark indices of markets around the world.

This fluidity creates strong competition between firms to satisfy their shareholders, leading to similar target returns and behaviours. Shareholders assess firms on their overall performance, downplaying the variability of their results by geographic area (analyzed, at best, by broad region) or type of activity. The information demanded on these breakdowns is thus far less detailed than the information demanded at the global level (all areas in the aggregate), as explained below with regard to IAS 14.

This situation has led to a very tenuous link between the valuation of companies of a given nationality, the location of their activities, the nationality of shareholders, and, for example, the place of receipt of dividend distributions.

The result is a sometimes significant divergence between the health of large corporations, often listed, and the performance of the economy to which they belong by nationality. In recent years, the media have been troubled by the discrepancy between French economic growth and the announcement of annual results by French listed companies (mainly the CAC 40 companies). Admittedly, official statistics provide scant coverage of the wide gap between firms' resident activity and their global activity<sup>14</sup>, which alone explains their vigour.

*Note: corporate ratings by agencies constitute a transnational activity in their own right, and have an equally important impact on firms by affecting their financing costs.*

### 2.4 Enterprises that live internationally

As the globalization of markets and economies intensifies, French companies are charting their development strategies internationally and no longer with reference to France alone. They define their

<sup>11</sup> Direction Générale des Douanes et des Droits Indirects, the French Directorate-General of Customs and Excise Duty.

<sup>12</sup> See J-G. Poulain (2004), "La détention du capital des entreprises françaises du CAC 40 par les non-résidents de 1997 à 2002", *Bulletin de la Banque de France*, no. 124.

<sup>13</sup> See the website of the Autorité des Marchés Financiers (AMF), the French Financial-Markets Authority: [www.amf-france.org](http://www.amf-france.org).

<sup>14</sup> There are some exceptions, but they consist of *ad hoc* studies, such as L. Dervieux (2002), *L'internationalisation des groupes non financiers du CAC 40*, INSEE working paper (*document de travail*) E2002/06.

market and competition on a world scale. They set up facilities or carry out mergers and acquisitions in countries where they will obtain a higher return on their business. Relocation of production is one element of this strategy. Multinational corporations make decisions based on the most advantageous tax or wage conditions, but also on the most flexible environmental policies.

*“In reality, the group engages in the financial activity of generating and allocating resources. The group allocates resources between countries and subsidiaries to fuel growth. It allows synergies in cross-sectional areas such as R&D and purchasing...”*

For these multinational enterprises, as for financial analysts, an analysis of business activity restricted to French territory is therefore no longer relevant.

The multinational firm should be viewed globally, i.e., in its entirety. Its performances—income, profits, profitability, etc.—are always analyzed, initially, in global terms, for it is in the global dimension that the enterprise takes on its full significance.

When the enterprise is multinational, the territorial component usually does not emerge until later. It most often applies to a “market-based” or “cost-based” approach. In the market-based approach, the firm wants to analyze its penetration in different national or regional markets, or the geographic distribution of its sales. In the “cost-based” approach, the company wants to determine the best location of its production facilities in terms of costs. But the very absence of a consistent link between production location and markets (indeed, the opposite is the norm) rules out any predominantly geographic approach to the analysis of the firm. Indeed, it is not uncommon to observe production processes that are highly fragmented in geographic terms, but whose consistency is only perceptible at a global level.

Likewise, the location of various support functions of the “core business”—such as logistics, R&D, and accounting—is not always identical to that of production facilities. This sometimes makes it very difficult to perform geographic analyses without special restatements. Such support activities, which can serve all subsidiaries, may thus be organized globally in order to benefit from economies of scale. One example is R&D, which can be performed in a single country for the entire group.

In these conditions, to analyze a particular French car manufacturer on the national territory alone—for example by comparing its output produced in France and its R&D expenditures also recorded in France—will produce a fairly irrelevant ratio, as those R&D outlays support the manufacturer’s entire production beyond the share recorded in France alone. Indeed, such arguments are what led the official statistical system to survey French groups in 2004 on their worldwide activity in order to analyze their strategy for expenditures on intangibles. Such strategies are based on a comprehensive approach to the enterprise, treated as a whole. The responses from large enterprises confirmed the rightness of this approach.

Furthermore, the way enterprises present themselves—in particular the way they handle their communication through websites, annual reports, and so on—is primarily global: they showcase their businesses before describing their geographic reach, if at all.

If these enterprises see themselves as multinational, it does not mean that the concept of nationality has become meaningless. The representatives of multinational firms auditioned by our Working Group have confirmed this. In fact, nationality explains some corporate decisions. A group may decide not to transfer outside the home country those corporate functions that it regards as strategic, even though the shift would make sense in strictly economic terms. More generally, as several witnesses noted, a group’s nationality often determines its culture or its mode of governance.

Several criteria have been offered to define corporate nationality, such as the country where the enterprise creates the largest share of its value (at least 40%), the country where the board of directors meets, and the country of citizenship of board members. As a rule, determining a group’s nationality is not a problem, as the group itself proclaims its nationality<sup>15</sup>.

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<sup>15</sup> See §6.2.2.3.

There are cases, however, where the application of these various criteria does not allow the determination of a nationality because the groups concerned clearly claim dual nationality. One example is the Anglo-Dutch group Shell. But the groups that are truly and lastingly bi- or tri-national remain exceptional.

The territorial dimension of the analysis of an enterprise and its activity is not, however, eliminated. First, as mentioned above, some analyses of corporate performance naturally call for a geographic approach: a world market share will often be segmented by country, cost issues also determine location strategies, and so on.

## **2.5 Official needs remain largely determined by the national-territory framework**

While there is a strong need to broaden economic analysis to the global scale, limited information requirements subsist at the national-territory level.

Some issues require a national or even subnational approach. They typically involve public policies at the national or regional level. Two examples are employment and growth. Public players implement policies and want to measure their effects.

Let us take the example of measuring growth by the change in gross domestic product. GDP consists of the total value of domestic output of goods and services in a given country in a given year. It is calculated—particularly in the production-based approach—from the sum of value added by resident economic agents. Information on the worldwide activity of multinational firms does not satisfy this requirement. We must therefore be able to measure value added generated in France, even if this concept loses relevance for globally-organized enterprises.

It is still important to emphasize at this stage that, for multinational players, we are dealing with a truncated view of their actual business, which may lead to less relevant analyses—or, more precisely, to analyses whose explanatory power is all the weaker as the enterprise's territorial dimension is not a mere scaling-down of its global dimension. This is vividly illustrated by the radical divergence between the changes in the CAC 40 companies' performances at the global and national levels (see §10.10).

In sum, while the enterprise should also be treated, for a number of purposes, in a territorial dimension, we should note that the latter can only rank second to its world dimension.

In principle, the territorial approach does not contradict the global approach, but is a necessary complement to it.

## **2.6 A statistical system that incorporates data on the non-resident component in addition to external flows**

The need to take the international dimension into account in the statistical analysis of the economy has been voiced for several years now. Until recently, the economy's global dimension was tracked only via external transactions. France, however, has developed information systems providing data on multinational firms in their global dimension (for example, the LIF<sup>16</sup> database does its best to integrate subsidiaries of multinationals in France and abroad).

The objective of monitoring multinational firms in their world dimension is obviously not specific to France. Countries such as the United States and Sweden have long ago set up surveys to measure their multinationals' global activity.

The European Council and Parliament have also expressed the need for a better measurement of global activity by introducing the new FATS (Foreign Affiliates Statistics) regulation<sup>17</sup>. The introduction to the document states that: "regular and good[-]quality Community statistics on the structure and activity of foreign affiliates in the whole economy are essential for an adequate assessment of the impact of foreign-owned enterprises on the European Union economy. This would facilitate the monitoring of the effectiveness of the internal market and the progressive integration of the economies

<sup>16</sup> For Liaisons Financières, i.e., financial links.

<sup>17</sup> Under adoption.

in the context of globalisation. In this context, multinational enterprises are playing a leading role, but also small and medium-sized enterprises can be concerned by foreign control.”

The task now is to monitor not only external transactions but also the activity of multinational enterprises conducted outside of the national territory, with its counterpart, i.e., the activity of non-resident (foreign) groups in France. The FATS regulation addresses both aspects.

In addition, the analysis of external trade (imports and exports) would become far more relevant if it identified the share of intra-group trade in the volume of imports and exports as well as in their volume changes. Clearly, intra-group trade is not always determined by the same factors as trade between independent economic players. It is shaped more directly by the group’s internal strategies concerning its global organization.

Consequently, without questioning the need to record these intra-group external transactions, it seems necessary to be able to identify their share of total external trade in order to improve the economic diagnosis.

In response to these new information requirements, the official statistical system has improved its performance by making better use of existing sources and enhancing them in various ways. Some needs remain unsatisfied, however. They notably concern economic activity by French-owned entities abroad. In this field, the use of existing information collected from French subsidiaries in the rest of the world may have reached its limits. One might consider setting up a new method to collect a wider range of economic information (by activity and by country). In addition to workforce size and sales abroad, users would greatly appreciate data on trade flows between firms operating abroad and other group affiliates. The design of the new collection system could draw inspiration from international experience in the field.

### 3. Different perceptions of the enterprise

The Working Group conducted about twenty interviews—or, more exceptionally, auditions—of “key witnesses” from three categories of actors concerned by business statistics: (1) persons directly involved in the business world, among whom we include financial analysts, (2) “analysts”, comprising macroeconomists, academics, and regulatory-agency staff, and (3) institutional players from government, employers’ organizations, etc.

We eventually conducted the largest number of interviews with “direct players” and analysts (almost the same number for each group), the institutional players ranking third<sup>18</sup>. We followed the same procedure for all interviews and auditions, using an interview guide sent to witnesses beforehand<sup>19</sup>.

Our goal was to record the opinion of each key witness on whether it was essential—or, on the contrary, detrimental—and to what degree, to include enterprise groups in investigations of such areas as financial analysis, foreign trade, competitiveness, sectoral analysis, and geographic presence. We also examined the choice of relevant territory for analysis, international comparability, the future of non-consolidated accounting vs. consolidated accounting, and other issues.

The main points that emerge from the interviews are the following:

- No witness ever voiced any doubt about the need to incorporate the group dimension. On the contrary, the economic player that makes immediate sense is the group. For many witnesses, the firm is not a relevant economic entity when it is a group subsidiary.
- The notion of relevant observation unit echoes the concern of some witnesses to examine the relevant market.
- The exclusion of groups can distort findings in several economic sectors, particularly when analyzing sectoral concentration.
- Taking the example of the rail-equipment sector, a key witness stated that the market comprises only three players for the purposes of the analyses that he prepares: Bombardier (Canada), Alstom (France), and Siemens (Germany).

<sup>18</sup> For a list of persons met, and their talking-points, see Annex 2 to French edition of this report.

<sup>19</sup> See Annex 2 to French edition of this report.

- One of the main advantages of using groups is the elimination of intra-group flows; this advantage is viewed as decisive, particularly for a correct “reading” of external trade, as it isolates its intra-group component.
- The expressed need to take the group dimension into account is often justified by the strong demand for tracking of the global dimension of French activity and, more generally, for coverage of market internationalization. Some witnesses believe that restricting analyses to national territory can lead to serious diagnostic errors, notably as regards enterprise health. One of the main points made is that groups initially determine their strategy at the global level, before adapting it to each area.
- At the same time, several witnesses stressed the complementarity of the two dimensions—territorial (i.e., local) and global. One witness emphasized the need not to undermine territorial analysis: covering the global dimension should not be used as an argument against preserving detailed knowledge of French territory. What witnesses call for is complementary information, similar to that regularly released by the BEA in the United States. In addition to the standard approach to the economy focused on “French territory”, witnesses would like an approach centred on the “French-controlled” economy.
- Most of the witnesses questioned on the relevance of the “group nationality” concept clearly responded in the affirmative, offering the same criteria for “determining” nationality: a country in which the group realized at least 40% of value added, location of corporate headquarters, nationality of board members, and so on. Shareholders’ nationality is not viewed as essential here.
- The advantage of eliminating intra-group flows—cited by some witnesses—does not always hinge on the existence of transfer prices, which in certain sectors are said to be infrequent or increasingly less divergent from market prices, particularly for tax-audit reasons.
- Most witnesses from the business world insist that the “business”, subgroup or operating division constitute a good observation level. They point out its immediate connection to a product market. The preferred analysis horizon for diversified groups is often the activity sector.
- Some witnesses slightly qualified the previous point of view by stressing the “subjectivity” of segmentation into subgroups: the reasons that lead a group to divide itself into subgroups are not consistent from one group to another.
- In a group, the consolidated approach is very largely preferred. Non-consolidated accounts are generally ignored. Some witnesses, however, view the two sets as complementary to a certain extent.
- One solution consists in preparing, within the group, subconsolidations on French territory alone and separating the main segments. The notion of operating division here is restricted to the national territory. Almost all witnesses regard the cost of this option as high the first time around, but very acceptable once it is up and running. In any event, only information available at a reasonable cost (for the enterprise group) will be supplied.
- Such subconsolidations could be achieved by deconsolidating the “overall” accounts or, on the contrary, consolidating the non-consolidated accounts. Several accounting specialists in our witness panel recommend the second approach.
- Several witnesses observed that it would be in the interest of the official statistical system to define (1) a set of characteristics to be consolidated within a given scope, and (2) an accompanying protocol for regular exchanges of information on these characteristics.
- Witnesses occasionally expressed fears regarding the complexity of IAS/IFRS standards and their current lack of stability. Yet not all witnesses shared those fears; in their view, standards are stabilizing. However, the predominant message conveyed by witnesses is that caution is needed when using consolidated accounts.
- There were only passing mentions of the risk that an operating segment would be viewed as so strategic or sensitive as to preclude all release of information concerning it.

#### **4. Legal, statistical, and economic approaches to the enterprise**

Enterprises can be examined from different angles: legal, economic, and statistical. Given the abundance of the literature and diversity of methods, any attempt to summarize the legal and economic approaches is a major challenge. The legal approaches are diverse because different sectors of the law deal with the subject differently. The economic approaches are diverse because the different schools view the topic from angles that, in principle, are hard to reconcile.

While the statistical approach may seem simpler, the margin for interpretation remains wide.

#### 4.1. Legal definition of the firm, the enterprise, and the group of firms

##### 4.1.1 Legal definition of the firm and the enterprise

It is worth recalling at the outset that there is no legal definition of the enterprise.

The only entities recognized by the law are legal or natural persons. Either may engage in economic activities. The “enterprise” is a concept that belongs to the universe of economists. We must immediately add that the very concept of the “firm” (or company) does not cover the entire domain of economic activity, some of which is conducted by unincorporated enterprises.

However, the law obviously takes into account the different aspects of economic activity, at the centre of which stands the enterprise. While the concept of the firm plays an important part in it (and historically the gap between the concepts of enterprise and firm has, no doubt, gradually widened), the law goes beyond this.

Let us quote, for example, Jean-Philippe Robé<sup>20</sup>:

*“Of these two concepts [firm and enterprise], only the firm exists in positive law. The firm (the group of firms for the largest enterprises, particularly multinationals) serves, in a manner of speaking, and as a first approximation, as a legal foundation for the enterprise.”*

The French Civil Code defines the firm (*société*) as follows:

*“The firm is instituted by two or more persons who agree by contract to allocate assets or their industries to a common enterprise, with a view to sharing profits or deriving benefit from the savings that may result. [The firm] may be established, in the cases provided for by law, by the act of will of a single person. The associates commit themselves to contribute to losses.” (Article 1832 of the Civil Code, 1985)*

In practice, therefore, as the handbook *Sociétés Commerciales, Mémento pratique Francis Lefebvre* (1993) points out, the word “firm” has two meanings:

*on the one hand it denotes the contract whereby two or more persons agree to pool something in order to share the profit or to take advantage of the resulting saving; that is the act of establishment of the firm;*

*on the other hand it designates the legal person [personne morale] to whom the pooled “thing” is assigned, and who is vested with the legal capacity to act in the name of and in the interest of the collective undertaking.*

The two terms *enterprise* and *firm* are often used interchangeably. Incidentally, Robé also points out that this permanent confusion in French between the terms *société* and *entreprise* also exists in English between *corporation* and *company*.

From the statistician’s viewpoint, it is interesting to note that the decree establishing the French business register, SIRENE, **does not link** the SIREN identification number to the concept of enterprise. On the contrary, SIRENE is a register of legal units, which constitute potential underpinnings of enterprises and economic activity.

The register is defined by Article 1 of decree No. 73-314 of 14 March 1973 amended by decree No. 83-121 of 17 February 1983 Art. 1:

*The National Institute of Statistics and Economic Studies [INSEE] is responsible for maintaining a national register of natural persons independently engaged in non-wage-earning occupations, legal persons under public law or private law, institutions and departments of the State and local government, as well as their local units [établissements], when they fall within the scope of the register*

<sup>20</sup> “L’entreprise en droit”, *Droit et travail*, 29- 1995, pp. 117-136, available online at <http://www.reds.msh-paris.fr/publications/revue/html/ds029/ds029-09.htm>. Robé is an international attorney and member of the Paris and New York bars.

*of trade and firms or the register of trades, or when they employ wage- and salary-earners, when they are subject to tax liabilities, or when they are the recipients of public financial transfers.*

*The procedures for their inclusion in the register and the assignment of a single identification number are defined by decisions by the ministers concerned.*

#### **4.1.2 Legal definition of the group**

To begin with, we note that the relevant concept in French law is the concept of groups of firms [*groupes de sociétés*], even though the group of firms is not a recognized legal person. Different approaches are used concurrently to define the group. In the labour sphere, and particularly with regard to employer-employee relations, the concept of *group* has acquired considerable significance in recent years.

##### **4.1.2.1 Definition of control in the Commercial Code (Articles L233-1 and L 233-3) :**

###### **Article L233-1**

*When a firm owns more than half of the capital of another firm, the second is regarded, for the purpose of implementation of the present chapter, as a subsidiary of the first.*

###### **Article L233-2**

*When a firm owns a share of capital in another firm ranging between 10% and 50%, the first is regarded, for the purpose of implementation of the present chapter, as having a stake in the second.*

*I. - A firm is regarded, for the purpose of implementation of sections 2 and 4 of the present chapter, as controlling another:*

*1° When it holds, directly or indirectly, a fraction of the capital that gives it the majority of voting rights in the firm's general meetings.*

*2° When it alone controls the majority of voting rights in the firm under the terms of an agreement reached with other associates or shareholders, an agreement that does not go against the interest of the firm.*

*3° When it determines de facto, through the voting rights that it controls, the decisions taken at the firm's general meetings.*

*II. - It is presumed to exercise this control when it holds, directly or indirectly, a proportion of voting rights exceeding 40% and no other associate or shareholder controls, directly or indirectly, a proportion greater than its own.*

*III. - For the implementation of those same sections of the present chapter, two or more persons acting jointly are regarded as jointly controlling another person when they determine de facto the decisions taken in the firm's general meetings.*

###### **Article L233-16**

*I. - Commercial firms prepare and publish each year, on behalf of the board of directors, the supervisory board, or the manager(s), as the case may be, consolidated accounts as well as a report on the group's management, if they exclusively or jointly control one or more other enterprises or exercise a significant influence on the latter, in the conditions defined below.*

*II. - Sole control by a firm results:*

*1° either from the direct or indirect ownership of the majority of voting rights in another enterprise;*

*2° or from the appointment, during two successive financial years, of the majority of members of the administrative, management or supervisory bodies of another enterprise; the consolidating company is presumed to have proceeded with this appointment when it has exercised direct or indirect control, during this period, of a percentage of voting rights greater than 40%, and when no other associate or shareholder has held, directly or indirectly, a proportion greater than its own;*

*3° Or from the right to exercise a dominant influence on an enterprise by virtue of a contract or statutory clauses, when the applicable law so allows.*

*III. - Joint control is the shared control of an enterprise operated jointly by a limited number of associates or shareholders, so that the decisions result from their agreement.*

IV. - *Significant influence on an enterprise's management and financial policy is presumed to exist when a firm controls, directly or indirectly, a proportion of at least one-fifth of the voting rights of that enterprise.*

Note: Accounting provisions allow a group not to include in its scope of consolidation subsidiaries that are of little importance relative to the group's size or subsidiaries that the group does not intend to keep. Invoking "intent" can be tricky.

#### 4.1.2.2 Contribution of accounting standards to the definition of "group of firms"

Accounting standardization offers a very valuable contribution to the economic representation of enterprise groups. Through its precise definitions, Consolidated Regulation 99-02 of the CRC<sup>21</sup> makes the legal definition more consistent with economic analysis<sup>22</sup>.

The most important message for our purposes is, no doubt, that the regulation defines sole control of a firm as *"the power to manage the financial and operating policies of an enterprise in order to benefit from its activities"*. This definition thus seeks to encompass all the legal instruments that can allow such power to be exercised. The regulation therefore characterizes the type of autonomy that can exist among the entities included in the scope of consolidation.

We should also note the mention of "combined accounts" that may apply to sets of entities that are integrated but are linked by other forms of relationships than those leading to consolidation. This may be the case of certain "network" entities.

The accounting community has not totally resolved the conceptual difficulties addressed here. First, there is a persistent debate on the entity to which the consolidated accounts apply: is it an extended description of the group head company or a description of the entire group? Regulation CRC 99-02 uses qualifiers that reflect sometimes one approach, sometimes the other. Second, the term "enterprise" is applied both to controlling and controlled entities, which is not necessarily fully consistent with economic analysis.

#### 4.1.2.3 The French "group" tax regime (tax integration)

The regime is defined in section VIII of the French tax code (Code Général des Impôts: CGI), entitled "group of firms", article 223A.

The first subparagraph of the article stipulates:

*A firm may establish its sole liability for corporate income tax due on the total results of the group formed by itself and the firms in which it has held an equity stake of at least 95 percent continuously during the financial year, directly or indirectly through firms belonging to the group. In this case, it is also liable to the annual fixed tax charge due by the firms in the group. At least 95% of the capital of the parent company shall not be held, directly or indirectly, by another legal person liable to corporate income tax under provisions of ordinary law or as provided in articles 214 and 217 bis. However, 95% or more of the parent company's capital may be held indirectly by another legal person subject to corporate income tax under provisions of ordinary law or as provided in articles 214 and 217 bis, through one or more legal persons not subject to that tax under the same conditions.*

#### 4.1.2.4 Taking the group into account in the workplace

The French work code gives an implicit definition of the group (*excerpt from article L 439-1, paragraph II*):

*"A group [works] committee is formed in the group consisting of an enterprise called the controlling enterprise and the enterprises that it controls, under the conditions defined in article L. 233-1 and paragraphs I and II of article L. 233-3 and L. 233-16 of the commerce code, enterprises whose headquarters are located on French territory.*

<sup>21</sup> French Accounting Regulatory Commission (Comité de la Régulation Comptable).

See [http://www.minefi.gouv.fr/directions\\_services/CNCompta/rcrc\\_modif/99\\_02\\_modifie.pdf](http://www.minefi.gouv.fr/directions_services/CNCompta/rcrc_modif/99_02_modifie.pdf).

<sup>22</sup> The section of the regulation concerning the definition of the scope of consolidation is provided in Annex 5 to the French edition of this report.

*Also regarded as a controlling enterprise, for the purposes of forming a group [works] committee, is an enterprise that exercises a dominant influence on another enterprise in which it holds an equity stake of at least 10%, when the lasting nature and the importance of the relationships between these enterprises confirm that both belong to the same economic complex.*

*The existence of dominant influence is presumed to be established, without evidence to the contrary, when an enterprise, directly or indirectly:*

- can appoint more than half of the members of administrative, management or supervisory bodies of another enterprise;*
- or holds the majority of votes attached to shares issued by another enterprise;*
- or holds a majority stake in the subscribed capital of another enterprise.*

When several enterprises satisfy one or more of the above-mentioned criteria vis-à-vis the same controlled enterprise, the one that can appoint more than half of the members of administrative, management or supervisory bodies of the controlled enterprise is regarded as the controlling enterprise, without prejudging evidence that another enterprise may exercise dominant influence.”

Moreover, the creation in French labour law of the concept of economic and social unit (ESU) (*unité économique et sociale*: UES) entails the possibility of establishing a link between the employer and a set of firms controlled by one of them.

*The economic and social unit (ESU) comprises, by convention or judicial decision, firms that are regarded, for the purposes of establishing the works committee, as a whole with the following features :*

- 1. existence of an executive unit*
- 2. complementary activities*
- 3. identical employment status of employees and their potential mobility [permutabilité] between the firms concerned. The existence of an ESU is recognized by agreement or by the judge with competence in workplace elections, namely, the juge d'instance. When this is the case, a works committee common to all the enterprises forming the ESU shall be set up<sup>23</sup>.*

More generally, in the sphere of labour law, “atypical” agreements (to use the Labour Ministry’s expression) have been signed in large groups since the 1990s—a prelude, of sorts, to group agreements.

For instance, the Act of 4 May 2004, which notably concerns collective bargaining, notes the following in article L 132:

*“Art. L.132-19-1. - The group agreement or accord shall define its scope of application, composed of all or some of the enterprises forming the group. The group agreement or accord shall be negotiated and signed between (1) the employer of the controlling enterprise or one or more representatives, designated for the purpose, of employers of the enterprises concerned by the scope of the convention or agreement and (2) representative unions of employees, as defined by article L. 132-2, in the group or in the set of enterprises concerned by the scope of the agreement or accord. [...] The group agreement or accord shall have the same effects as the enterprise agreement or accord.”*

The general idea, defended in particular by the Labour Ministry, is that everything negotiated at the enterprise level should be negotiated at the group level as well. This forceful entry of the group into labour law is not, however, backed up by a legal definition of the group; for the lawmaker, the group will ultimately be what its partners want it to be! At that point, according to an established practice, the interlocutors of the group’s largest enterprise would, so to speak, define the group’s boundaries for the application of the agreements. The notion of subgroup is implicit in such an approach.

In fact, a growing number of obligations are being introduced to negotiate at group level, mainly on the forward-looking management of jobs and skills. While the incorporation of the group level into workplace-relations management seems to be consistent with the historical trend, according to the

<sup>23</sup> Source: website of French Ministry of Employment, Social Cohesion, and Housing.

Directorate-General of Labour<sup>24</sup>, the difficulties to be overcome are real enough. They mostly concern personnel representation, which still needs to be consolidated at the group level, as well as the generally “globalized” nature of groups. On the latter point, the very notion of “European firm” seems to go further by linking different enterprises in different States and by consequently establishing a transnational representative entity.

#### 4.1.2.5 A few elements of jurisprudence

Another case in which the *de facto* existence of groups of firms has been taken into account in the French legal sphere concerns the limitation of exposure of company executives to charges of misappropriating corporate funds. It consists of the Rozenblum jurisprudence<sup>25</sup>. The criminal chamber found that “to escape the provisions of articles 425 (4°) and 437 (3°) of the Act of 24 July 1966, the financial assistance provided by the *de facto* or *de jure* executives of a firm to another enterprise of the same group in which they hold a direct or indirect interest must be dictated by a common economic, social or financial interest, assessed with regard to a policy developed for the entire group.” The Court’s legal ground represents a true foundation stone for the recognition of a collective interest of groups of firms in regard to misappropriation of corporate assets<sup>26</sup>.

The legal definition of the enterprise is therefore complex. In some fields—but only some—it exceeds the firm alone, but this extension is limited.

While French law recognizes in several rulings that decision-making in group subsidiaries is not independent of the interests of other firms in the group, the firm remains the basic legal building block. Jean-Philippe Robé summarizes the issue as follows<sup>27</sup>:

*“In the enterprise whose corporate structure consists not of a single firm but of a group, the assets used by the enterprise are therefore the property of several firms, of several legal persons. [...] From the legal standpoint, whatever the actual communication process leading to decision-making in the enterprise (autocratic or democratic, whether the enterprise functions with management committees or not), the legally valid decisions are those taken in conformity with the procedures spelled out in company law. Decisions taken by enterprises are formally taken by the firms that act as their corporate underpinning in positive law. They are assumed to have been taken at the end of the decision-making process spelled out in company law applicable to each of the firms, by the individuals who constitute the ‘executive bodies’ under that same company law.”*

But he later adds this explicit comment:

*“Each enterprise functions in this area [i.e., as regards communication leading to decision-making] in a specific way and, in most cases, compliance with company law is only formal, once the decision is already taken in the management bodies that each enterprise establishes by itself. [...] Managers of subsidiaries, sub-subsidiaries, sub-sub-subsidiaries and so on often rank as subordinates with respect to parent-company managers.”*

#### 4.1.2.6 Competition rules

We are forced to conclude that the corpus of competition law appears to use the concept of enterprise, which makes the situation less clear. For example, competition law deals with related enterprises (competition law – rules for public-works concessions).

Opinion 05-A-22 of the French Competition Council provides the following references.

In EU law (Directive 2004/18/EC - Article 63 - Paragraph 2), we find the following definition:

*2. Groups of undertakings which have been formed to obtain the concession or undertakings related to them shall not be considered third parties.*

<sup>24</sup> Direction Générale du Travail (DGT) (French Labour Ministry).

<sup>25</sup> Cass. Crim., 4 Feb. 1985, Rev. Soc. 1985, note Bouloc; R.T.D. com. 1985, note Bouzet

<sup>26</sup> For more information on this complex subject, see Mathias Rey, *La responsabilité du dirigeant dans les groupes de sociétés en droit français*, dissertation (Mémoire de DEA de droit économique), University of Paris I (available online).

<sup>27</sup> *L’entreprise en droit*, “Que sais-je?” series, no. 3442, Paris: Presses Universitaires de France (PUF), 1999.

*“Related undertaking” shall mean any undertaking over which the concessionaire can exert a dominant influence, whether directly or indirectly, or any undertaking which can exert a dominant influence on the concessionaire or which, as the concessionaire, is subject to the dominant influence of another undertaking as a result of ownership, financial participation or the rules which govern it. A dominant influence is presumed when, directly or indirectly, in relation to another undertaking, it:*

- (a) holds a majority of the undertaking’s subscribed capital*
- (b) controls a majority of the votes attached to the shares issued by the undertaking, or*
- (c) can appoint more than half of the undertaking’s administrative, management or supervisory body.*

*The exhaustive list of such undertakings shall be included in the application for the concession. That list shall be brought up to date following any subsequent changes in the relationship between the undertakings.*

The transposition to French law, in ordinance 2005-649 (Article 29), is very interesting, because the lawmaker seems to have assumed the equivalence between this definition and the accounting definition:

### **III. - Enterprises related to a contracting entity include the following:**

- 1. Enterprises whose annual accounts are consolidated** with those of a contracting entity;
2. Enterprises that are subject directly or indirectly to the dominant influence of a contracting entity as defined in para. 2 of article 4;
3. Enterprises that can exercise, directly or indirectly, a dominant influence on a contracting entity as defined in para. 2 of article 4;
4. Enterprises that are subject to the dominant influence of an enterprise that itself exercises a dominant influence on a contracting entity as defined in para. 2 of article 4.

IV. – Contracting entities shall disclose to the European Commission, at its request, the names of the organizations mentioned in para. 2 of [section] I and linked enterprises as defined in [section] III, the type and value of contracts mentioned in [section] I and any evidence that the European Commission deems necessary for proving that the relations between the contracting entity or organization and the enterprise to which the contracts are awarded meet the requirements specified in the present article.

## **4.2 Economic definition of the enterprise**

Absent a unified economic theory for defining and analyzing the enterprise, we can attempt a very summary mapping of the issue by drawing heavily on C. Ménard’s overview entitled “A New Institutional Approach to Organization”<sup>28</sup>.

Whereas micro-economic theory reduced the enterprise to a production function, two authors at the end of the first quarter of the twentieth century—A. Marshall and, even more decisively, R. Coase in *The Nature of the Firm*—lay the foundations for what has become, in economics, the theory or, rather, theories of organizations. These largely fall into three schools: transaction-cost economics, agency theory, and property-rights theory.

All three schools seek to understand why neoclassical market mechanisms fail to explain the existence of the firm<sup>29</sup>. However, for the issue discussed here—the identification of the translation of the enterprise into the legal forms of the firm—we believe the most relevant approach is the institutional approach to transaction costs.

While these different currents diverge on the fundamental causes of enterprise formation, they do offer complementary insights for the Working Group’s project, which is to try to deduce from the fundamental nature of the enterprise the observable representation that best matches it.

<sup>28</sup> In C. Ménard and M. Shirley (eds.), *Handbook of New Institutional Economics*, pp. 281-318, Springer, 2005.

<sup>29</sup> In the sense that the employer/employee relations on which the enterprise is based are not consistent with neoclassical market principles, which hold that each worker continuously offers his or her labour in accordance with a market relationship of equality between supply and demand.

We may begin by examining the work of Alchian and Demsetz<sup>30</sup> or that of Jensen and Meckling<sup>31</sup>, which are not, essentially, institutionalist and which defend an analysis of the essence of the enterprise that is rather distant from power relationships (i.e., hierarchical relationships).

Alchian and Demsetz define the enterprise as a contractual organization of inputs, which comprises a production that makes joint use of these inputs, several owners of the inputs, and a stakeholder common to all input-related contracts. The stakeholder (1) is entitled to renegotiate each input contract independently of the owners of the other inputs, (2) possesses the rights to income from operations, and (3) is entitled to dispose of those rights.

Jensen and Meckling, meanwhile, show that the enterprise can be analyzed as a legal entity supporting a cluster of contracts between a single decision-maker and a set of partners—some inside the enterprise, others outside. The entity is characterized by the possession of rights to the assets and operating income. The entity can dispose of the rights independently of the other contracting parties.

These definitions would imply, for example, that a majority-held group subsidiary could not constitute an enterprise on its own, since the majority shareholder's capacity to appoint the majority of directors automatically incorporates the directors into the cluster of contracts that characterize the players controlling the subsidiary.

For a more detailed analysis of enterprise organization and its observable manifestation, the most tempting approach is that of O.E. Williamson<sup>32</sup>. He strongly emphasizes the difference between market modes of functioning and firms' internal modes of functioning, which he refers to as hierarchies. Williamson distinguishes between three forms of enterprise:

U-form (unitary): all of the enterprise's activity is performed within the same entity

H-form (holding company): a holding company outside the entity conducts the economic activity

M-form (multidivisional): the decision-making entity is explicitly separated from the current-production entity, and strategic management of all divisions—what Williamson calls “enterprise-wide considerations”—is performed centrally, whereas routine decisions are taken by each divisions. More specifically, in a multidivisional enterprise, the decision-making centre is involved in:

identifying separable activities in the enterprise

allocating near-autonomy to each division, i.e., turning it into a profit centre

monitoring the profitability of each division

introducing incentives

optimizing the enterprise's use of cashflow

defining strategy (diversification, acquisitions, divestments, etc.).

Williamson distinguishes between the “conglomerate” and the “multidivisional unit”: the first is an extension of the second, but embraces activities that are more loosely related to one another (i.e., their synergy is not self-evident). The role of the decision-making centre consists mainly of managing the internal capital market.

It is also generally admitted that the “M-form” has historically<sup>33</sup> proved the best-suited to multinational activity, which requires both decentralized decision-making and the possibility of setting up legal persons compatible with local law in the countries where the subsidiaries are established.

Economists have not been immune to the above-mentioned confusion between the enterprise and the corresponding legal form (the firm). Some authors—particularly economists specializing in organization theory—seem to pay more attention to the consistency of terminology in order to clearly situate the “enterprise” level in their studies as distinct from the interior of the enterprise (its divisions) and the exterior (competitors, the State, etc.). Other economists use more variable terms.

<sup>30</sup> Armen A. Alchian and Harold Demsetz (1972), “Production, information costs and economic organization”, *American Economic Review*, vol LXII, no. 5 (December), pp. 777-795.

<sup>31</sup> Michael C. Jensen and William H. Meckling (1976), “Theory of the firm: managerial behaviour, agency costs and ownership structure”, *Journal of Financial Economics*, vol. 3, no. 4 (October), pp. 305-360.

<sup>32</sup> O.E. Williamson, “The economic institutions of capitalism: firms, markets and relational contracting”, chapter 11 of *The Modern Corporation*, New York: Free Press, 1985.

<sup>33</sup> Basically before the advent of the contemporary Information Age.

For example, in *A Theory of Pyramidal Ownership and Family Business Groups*, H. Almeida refers to subsidiaries as “firms”, a term that evokes the enterprise as decision-making centre. In “Corporate ownership around the world”<sup>34</sup>, R. La Porta, F. Lopez de Silanes, and A. Schleifer use “firm”, “corporation”, and “company” interchangeably for subsidiaries and “group” for the higher level.

As for “business groups”, M. Granovetter’s article on the subject in *Handbook of Economic Sociology* (1994) offers the following definition:

*“A business group is a collection of firms bound together in some formal/or informal way. I mean to define the concept as referring to an ‘intermediate’ level of binding—excluding on the one hand, a set of firms bound merely by short-term strategic alliances and, on the other, a set of firms legally consolidated into a single one.”*<sup>35</sup>

Granovetter goes on to include conglomerates in enterprise groups, but he excludes multidivisional enterprises, arguing that ties between divisions are too strong for each division to be regarded as an independent enterprise.

Enterprise groups assume characteristic forms in different countries, particularly according to the diversity of the national system of company law. For France, he quotes D. Encaoua and A. Jacquemin<sup>36</sup>:

*“Thus, Encaoua and Jacquemin suggest that the existence of the 319 French industrial groups they study should be interpreted as the Chandlerian outcome of a ‘search for an efficient organizational adaptation’ to characteristics of particular industries (1982, p. 32). They conclude that these groups, though consisting of legally independent firms, are really approximations of the American multidivisional form, with some ‘peculiarities due mainly to national characteristics inherited from history[...].’ (emphasis ours)*

To understand the legal context of the enterprises analyzed by Chandler or Williamson, it is useful to bear in mind that, under U.S. state law (as against U.S. federal law), each enterprise is subject to the company law of the state in which its headquarters are located. As a result, there is a link between firms-as-legal-persons known in the U.S. as “consolidation”, which resembles but is distinct from “merger”<sup>37</sup>.

To sum up: while the enterprise is defined as a long-term cluster of incomplete contracts managed by a single decision-maker, the legal structure of a group of firms theoretically allows decisions to be taken regarding all the contracts concerning all the firms. Therefore, in selecting which unit in a group of firms constitutes an enterprise, we should use two criteria: (1) the choice of power organization in the group and (2) the field of economic analysis on which we want to focus. For example, it is natural to assume that a study of corporate financing cannot conduct effective analysis at a level below the group, since an “internal” financial market generally exists in the group. By contrast, a study focused on production activity should presumably analyze “divisions”, as defined in the “M-form” described above, or the different segments of conglomerates, as the group’s multiple activity would make group-level analysis less relevant.

### **4.3. Statistical definition of the enterprise and the group**

#### **4.3.1 Statistical definition of the enterprise**

<sup>34</sup> *Journal of Finance*, vol. 54, no. 2 (April 1999), pp. 471-517.

<sup>35</sup> An enterprise group is a set of enterprises connected by formal and/or informal links. The focus here is on intermediate-level links, which exclude (1) strategic alliances and (2) enterprises consolidated into a single entity. The latter is an option under U.S. law without equivalent in French law.

<sup>36</sup> D. Encaoua and A. Jacquemin, “Organisational efficiency and monopoly power: the case of French industrial groups”, *European Economic Review*, vol. 19 (1982), pp. 25-51.

<sup>37</sup> See, for example, article 251 of the Delaware Code (General Corporation Law):  
<http://delcode.delaware.gov/title8/c001/index.shtml>

This definition is somewhat old, since it dates from Council Regulation (EEC) No. 696/93 of 15 March 1993. This is the mandatory reference for the structural business statistics made compulsory by Statistical Regulation 58/97. This definition stipulates that:

*The enterprise is the smallest combination of legal units that is an organizational unit producing goods or services, which benefits from a certain degree of autonomy in decision-making, especially for the allocation of its current resources. An enterprise carries out one or more activities at one or more locations. An enterprise may be a sole legal unit.*

It is accompanied by following explanatory note:

*The enterprise thus defined is an economic entity which can therefore, under certain circumstances, correspond to a grouping of several legal units. Some legal units, in fact, perform activities exclusively for other legal units and their existence can only be explained by administrative factors (e. g. tax reasons), without them being of any economic significance. A large proportion of the legal units with no persons employed also belongs to this category. In many cases, the activities of these legal units should be seen as ancillary activities of the parent legal unit they serve, to which they belong and to which they must be attached to form an enterprise used for economic analysis.*

#### **4.3.2. Statistical definition of the group**

Statisticians are still using the term “enterprise group”. The expression is unfortunate because it equates firms with enterprises *de facto*, whereas our goal is indeed to abandon this equivalence, which is particularly unsatisfactory for firms that are subsidiaries of a group. The term “group of firms” would have been more appropriate.

Conceptually, however, we are dealing with the same object as the “legal” notion of group: statisticians measure the possession of control in firms. While there are marginal discrepancies, the choice is not aimed at integrating a concept of enterprise, but at simplifying statistical measurement.

##### **4.3.2.1. European definition**

Excerpt from Council Regulation (EEC) No. 696/93 of 15 March 1993 “on the statistical units for the observation and analysis of the production system in the Community”:

*An enterprise group is an association of enterprises bound together by legal and/or financial links. A group of enterprises can have more than one decision-making centre, especially for policy on production, sales and profits. It may centralize certain aspects of financial management and taxation. It constitutes an economic entity which is empowered to make choices, particularly concerning the units which it comprises.*

*Explanatory notes [excerpt]*

*1. For certain observations and analyses it is sometimes useful and necessary to study the links between certain enterprises and to group together those which have strong ties with each other. A number of exercises are underway but not finished concerning the concept of the group of enterprises. It is defined here starting from the concept of accounting group as given in the Seventh Council Directive 83/349/EEC (OJ No L 193, 18. 7. 1983, p. 1).*

*3. [...] A statistical unit known as ‘enterprise group’ based on the ‘accounting group’ concept must be defined by applying the following amendments:*

- consider accounting groups at the highest consolidation level (group head),*
- include in enterprise group units whose accounts are entirely integrated in those of the consolidating company,*
- add majority-controlled units whose accounts are not included in the overall consolidating by virtue of application of one of the criteria allowed by the seventh Directive, i. e. difference in the type of activity or small relative size,*
- discount temporary links of less than a year.*

The Eurostat *Business Registers Recommendations Manual* gives the following indications:

A group is a set of enterprises one of which exercises control directly or indirectly over all the others, without being controlled by any other. Control refers to the dominant influence of a parent company on the medium- and long-term strategies of the other legal units, i.e., that the parent company should be capable of influencing directly or indirectly the decisions in the annual general or extraordinary meetings of shareholders in each of the other firms.

The system could also take family-owned groups into account, provided a sufficiently exhaustive database of individual information on such groups were available<sup>38</sup>.

#### 4.3.2.2. Definition adopted in French statistics

France conducted its first survey on financial links between firms (Enquête Liaisons Financières: LIFI) in 1980. It was the practical application of one of the recommendations in the 1975-1980 medium-term program prepared by CNIS (or, as it was then known, Conseil National des Statistiques: CNS), which set the “growth of studies on groups of firms” as a “priority objective” for INSEE. This recommendation, in turn, echoed a finding of a report by a CNIS-appointed Working Group on the establishment of a statistical system for tracking groups. Interestingly, these initiatives already emphasized the French statistical system’s lack of knowledge of the “dependency relationships that may develop between firms” or its “merely marginal awareness” of them. This “simplification giv[es] a distorted image of reality (particularly by underestimating concentration)”<sup>39</sup>.

The recommendations stressed that—absent a legal definition—the definition adopted by INSEE after consultations at CNIS (CNS) was a provisional operating concept (!) that, at the request of the CNPF<sup>40</sup>, should not influence a legal definition to be introduced later<sup>41</sup>. It is this provisional definition that still remains in force.

**Enterprise group:** economic entity composed of a set of firms that are either firms controlled by a single firm, or that controlling firm itself. To control a firm is to have the power to appoint the majority of its managers. A firm B can control a firm A either directly (with firm B directly holding the majority of voting rights on A’s board of directors) or indirectly (with B controlling intermediate firms C, D, E, etc., which it can instruct to vote identically on A’s board of directors, thus obtaining majority rights).

The French statistical definition currently in effect uses the absolute majority of voting rights as the control criterion.

Today, the French statistical system does not recognize family-owned groups as such, but it does recognize groups controlled by families who have set up a family holding company vested with all voting rights. Likewise, it does not take into account relative-majority stakes.

Joint ventures are a special case. At present, they are treated by means of “proportional integration” into the groups that co-control them, as well as their own subsidiaries. These special cases carry relatively little economic weight<sup>42</sup>.

#### 4.3.2.3 Closeness of statistical concept and accounting concept

We assessed the economic weight of firms that are controlled not according to the statistical criterion of absolute majority (direct or indirect stake of more than 50% of voting rights) but only by relative majority (i.e., one shareholder has 40%-50% of voting rights and no other shareholder has more than 50%). Two types of firms fall into this category:

*Firms that are controlled through a relative-majority stake and that are group heads themselves.* This subcategory comprises groups in the ordinary statistical sense, which, in fact, are only parts of groups.

<sup>38</sup> Simulations based on declarations filed with registrars of French commercial courts (*tribunaux de commerce*) show that this source is very incomplete.

<sup>39</sup> *Courrier des Statistiques*, no. 18, April 1981.

<sup>40</sup> Confédération Nationale du Patronat Français, the French employers’ association, predecessor of the MEDEF.

<sup>41</sup> *Courrier des Statistiques*, no. 18, April 1981.

<sup>42</sup> In 2003, groups employed 7.9 million people in France (excluding temporary workers). Joint ventures accounted for 2% of these total jobs.

With the absolute-majority criterion, these firms taken collectively are defined as an autonomous group, which becomes a subgroup when its group head is included in the scope of consolidation of another group. For these firms, therefore, the change in “majority stake” criterion (absolute or relative) does not alter their contribution to the share of groups in the French economy; only their membership changes.

*Firms currently regarded as outside the “group” category because they lack subsidiaries of their own.* If we alter the statistical definition, this category may boost the statistically measured share of groups in the French economy—and rightly so. The table below shows that the increase is very modest (in terms of jobs, approximately 50,000: see below).

We have broken down the results using two methods:

- According to the usual method, by classifying each firm in the sector corresponding to its principal activity

- According to the group-centred approach:

Firms that are controlled through a relative-majority stake and are group heads themselves: we have classified this set of firms in the sector corresponding to the principal activity of the group that they define—which is, in fact, a subgroup “controlled through a relative-majority stake”<sup>43</sup>.

Other firms controlled through a relative-majority stake: we have used the standard method<sup>44</sup>.

NES 16	Provisional estimates	Number of employees (‘000) classified according to APE :		% of total number of employees of firms in this sector integrated into groups (according to each firm’s APE)
		Of each firm	Of each group	(selon l’APE de chaque société)
EB	Agricultural and food industries	5	9	1
EC	Consumer-goods industries	7	13	2
ED	Motor-vehicle industry	14	15	5
EE	Capital-goods industries	5	16	1
EF	Intermediate-goods industries	12	17	1
EG	Energy	1	1	0
EH	Construction	7	30	2
EJ	Wholesale/retail trade	25	41	2
EK	Transport	15	35	2
EL	Financial activities	11	7	2
EM	Housing activities	4	2	6
EN	Business services	139	45	9
EP	Personal services	15	26	5
EQ	Education, health, welfare	1	5	1
<b>Total</b>		263	263	3

Source : LIFI, DIANE, SUSE 2003.

*Commentary: A total 263,000 wage- and salary-earners are employed by firms that, with a definition of “control” enlarged to relative-majority stakes, are controlled by groups on which they would not be dependent under the majority-control criterion. Of these workers, 5,000 belong to firms in the capital-goods sector. They represent 1% of employees of all firms in this sector belonging to groups. Another 16,000 belong to groups of firms whose principal activity is the capital-goods industry, which is not necessarily their firm’s principal activity.*

<sup>43</sup> According to our estimates, these subgroups employ about 200,000 people.

<sup>44</sup> According to our estimates, these firms employ about 50,000 people.

## **5 Conclusion to Part I: a gap between the importance of groups and their coverage by business statistics**

### **5.1 A representation of enterprises that takes precedence over their legal structure**

The analyses offered by enterprises themselves and the developments in economic theory converge toward a representation of the enterprise as an economic player rather than a legal structure. The latter may consist of a single firm or—for the larger entities—a group of firms. For a very large majority of key witnesses auditioned, including business managers, analysts, and representatives of institutions, the relevant autonomous economic player to be observed is either the group itself (in the case of groups of firms) or, in some instances, its operating divisions.

In a parallel development, the group, instead of or alongside its firms (subsidiaries), is increasingly viewed as the key entity in the field of labour law and regulations, and more specifically in the field of employer-employee relations.

### **5.2 Statistics that should take into account the role played by groups**

In practice, the needs voiced by users take the “group” dimension into account. When analyzing concentration in an economic sector or the size of the enterprises and firms involved, statisticians cannot ignore groups as economic players.

Users want the key macroeconomic indicators (production, turnover [sales], value added, etc.) to focus primarily on tracking the market economy. Given this demand, the inclusion in these indicators of intra-group flows—whose main drivers are not market forces—seems secondary.

This expectation is even more manifest when it comes to measuring the globalized dimension of the economy French and its main economic actors. Describing the international activity of the largest groups, through their units located abroad, is seen as a necessary complement to analyses centred on the national territory. Even more strongly, witnesses expressed a desire for macroeconomic analyses covering the totality of economic players’ activities, on the grounds that they would be more capable of explaining economic facts than analyses that “truncated” these entities’ activities.

### **5.3. A statistical system that is now at odds with the organization of economic activity**

The choice of statistical unit partly determines the relevance of the statistics compiled, i.e., their ability to answer users’ questions.

France’s current system of business statistics is almost solely based on legal units and particularly on firms. This has many advantages, notably because firms are easy to identify and information about them is easy to collect.

But the approach also has many drawbacks today, as these units do not always make it possible to track the true economic players, nor to measure their full dimension. As a result, the statistics based on their observation are less able to shed light on certain topical issues.

Because of this gap between the groups’ leading role in the economy and their near-absence in the preparation of business statistics, the latter are steadily losing relevance.

## Part II: Potential paths for improvement

### 6 New concepts for describing economic actors

As noted in Part I, the production system and its actors can be described largely by using three reference units:

- The legal unit, as it is called in the European regulation on statistical units<sup>45</sup>, which consists of the natural person in the case of unincorporated enterprises, or the legal person, typically a firm.
- The group of firms, which is not endowed with legal personality but, because of its control over its subsidiaries, is the fully autonomous functioning entity.
- An intermediate unit: the *group operating division*. This is a part of the group that, while less autonomous than the group—essentially in financing terms—engages in a sufficiently homogeneous activity to be associated with an aggregate level of product market.

### 6.1 Reminder of principles of construction of current system of business statistics

#### 6.1.1 Business statistics and sectoral statistics

Official structural statistics are currently based on the assumption that each legal unit (firm or unincorporated enterprise) is equivalent to an enterprise. No distinction is made between controlled and non-controlled firms. This equivalence offers two advantages: (1) the system can benefit from the French administrative approach, which is very rigorous in its use of the legal unit as the basis for defining the administrative obligations of businesses; (2) all the tax and social-contribution reporting requirements use the legal unit as their cornerstone. The existence of the inter-departmental business register known as SIRENE and the generalized use of its identification number ensure excellent coverage and high traceability of operations involving the legal units. The highly standardized General Chart of Accounts<sup>46</sup> provides the basis for a very homogeneous and easy-to-use information system. INSEE's long-standing participation in the National Council for Accounting, the capacity of the French administrative system to cooperate in the improvement of statistics compiled from individual administrative data, and the early opportunities afforded by the 1951 Statistics Act have enabled France to develop one of the most integrated<sup>47</sup> and most homogeneous<sup>48</sup> systems of business statistics<sup>49</sup>. Downstream from business statistics, French national accounting has developed an "intermediate enterprise system"<sup>50</sup>, which, by applying a few hypotheses<sup>51</sup>, has achieved the greatest possible integration between national-accounting concepts and individual business data<sup>52</sup>. We should also note that in France the activity classification system has a legal status that transcends the statistical sphere, which is not necessarily the case in other Member States.

The most logical statistical procedure for dealing with such an institutional and sociological reality consists in (1) breaking down the legal units by principal activity code, with which enterprises are very familiar because of its systematic use in their contact details; (2) aggregating the individual

<sup>45</sup> Regulation EU No. 696/93.

<sup>46</sup> Plan Comptable Général: PCG.

<sup>47</sup> This is not necessarily the case in other countries of comparable size. Some adopt a more pragmatic approach at the administrative level, some use administrative identifications that are more specific and harder to collate, and others have more complex organizations, particularly owing to their federal structure.

<sup>48</sup> To forestall any charges of excessive chauvinism, we should note that France is far from holding a comparable lead in statistics based on the "Kind-of-Activity Unit" (KAU) (see below) or localized statistics, for which the statistics of countries with a federal system (such as Germany and the U.S.) are in a far better position.

<sup>49</sup> See M. Volle, *Histoire de la statistique industrielle*, Paris: Economica, 1982, and the multi-author volume *Pour une histoire de la statistique*, Economica, 1977 and 1987.

<sup>50</sup> Système Intermédiaire d'Entreprise: SIE.

<sup>51</sup> The main assumption in the French system is to equate the statistical unit of reference of the European System of Accounts (ESA)—the Local Kind-of-Activity Unit (LKAU)—with the legal unit.

<sup>52</sup> P. Augeraud and J.E. Chapron, "Using Business Accounts for Compiling National Accounts: the French Experience", October 1997, in *Links Between Business Accounting and National Accounting*, New York: United Nations, December 1997.

characteristics, of which a large share is merely a copy of the information items required by government agencies. We thus obtain “sectoral” statistics.

Unfortunately, the widespread use by enterprises of references to underlying legal concepts such as “group of firms” limits the relevance of this system. Yet the latter is highly efficient in *strictly technical terms*, as it “does its job” at minimal cost, even if it is not effective in the sense of fully satisfying user expectations. This issue of relevance to users is compounded, for statisticians, by the obligation to introduce a growing number of distortions. To cope with statistics that may become ever less comprehensible, statisticians should step up efforts to allow their interpretation—hence the need to define rules for handling these difficulties<sup>53</sup>.

### 6.1.2 Branch statistics

French statistics on industrial branches are confined to measuring production. They are more elaborate in the manufacturing sector, where the need for information on production is strong and long-standing, and has stimulated the development of subannual statistics. But it is also important in the wholesale/retail and service sectors, for which the national accounting system’s “sectoral accounts commissions” attach great importance to such statistics. Intra-consumption is imperfectly measured: the “purchases” framework requested by national accountants for estimating the table of inter-industry flows proved impractical. Unlike other EU Member States, France does not use the kind-of-activity unit<sup>54</sup> as statistical unit. At the price of using a non-observable statistical unit—the “homogeneous branch”<sup>55</sup>, French national accounting estimates “branch operating accounts” with the aid of a model.

### 6.1.3 Group statistics

Aware of the limits of statistics that would not cover enterprise groups, the official statistical system and the National Council on Statistics<sup>56</sup> tackled the issue in the late 1970s. In a different institutional context (at the time, France imposed no requirements or standards for the preparation of consolidated accounts), it was decided that the first step toward such integration would be to make a census of “enterprise groups”. A pilot census was conducted in 1980, which means that French statisticians now have long-term series on groups going back to 1981.

For this purpose, French statisticians had to draw up their own definition of control by deducing their own definition of the enterprise group. Specifically, the census was confined to enterprise groups truncated in French territory with, however, information on potential “upstream” first-tier non-resident shareholders, the nationality of the ultimate group head, and first-tier non-resident subsidiaries.

These group statistics have remained separate from standard business statistics. They have thus remained, so to speak, sociological: they simply use head counts to measure the change in the “enterprise groups” subpopulation within the enterprise category. However, some economists have reconstructed business statistics incorporating groups as economic units, from individual data defining

<sup>53</sup> Examples include: spinoff to subsidiary with 100% stake in activity, spinoff to subsidiary with 100% stake in management of group personnel subsequently assigned to the group’s different firms, spinoff to subsidiary with 100% stake in real-estate assets with subsequent rental, etc.

<sup>54</sup> Council Regulation (EEC) no. 696/93 defines the kind-of-activity unit as follows: “*The kind of activity unit (KAU) groups all the parts of an enterprise contributing to the performance of an activity at class level (four digits) of NACE Rev. 1 and corresponds to one or more operational subdivisions of the enterprise. The enterprise’s information system must be capable of indicating or calculating for each KAU at least the value of production, intermediate consumption, manpower costs, the operating surplus and employment and gross fixed capital formation.*”

<sup>55</sup> The homogeneous branch, called homogeneous unit of production in Council Regulation (EEC) no. 696/93, is defined as follows: “*The unit of homogeneous production (UHP) is characterised by a single activity, which is identified by its homogeneous inputs, production process and outputs. The products which constitute the inputs and outputs are themselves distinguished by their physical characteristics and the extent to which they have been processed as well by the production technique used, by reference to a product classification. The unit of homogeneous production may correspond to an institutional unit or a part thereof; on the other hand, it can never belong to two different institutional units.*”

<sup>56</sup> Which has since become CNIS.

the scope of groups and individual data on each firm's economic characteristics<sup>57</sup>. This approach has so far been confined to "one-off" study projects.

## 6.2 The logic of a system based on the group of firms

To identify the ultimate strategic decision-making centre for each enterprise, we must define a statistical unit that, for firms integrated into groups, views the entire group as a single independent entity capable of making strategic decisions. The following pages describe how we could build a statistical system based on these units.

### 6.2.1 Basic principles of overall statistical units (OSUs)

First, the description rules set out in the previous chapter continue to apply to the section of the economy comprising unincorporated enterprises (whose legal basis is the natural person) and enterprises whose legal basis is a legal person not controlled by any other<sup>58</sup>.

Second, we view each group of firms as forming a single entity, which we shall call the **overall statistical unit**. It reflects the group head's authority over all the subsidiaries. These may be deprived of a share of autonomy that varies from one group to another. The group head company often takes the most "structural" decisions for the total set of firms. It is the decision-making level that typically handles decisions regarding changes in scope of activity (mergers and acquisitions), heavy investment, financing, facility (re)location, and so on.

In principle, each unincorporated enterprise and each enterprise whose legal basis is a non-controlled legal person forms an *overall statistical unit* in its own right. For the sake of concision, we shall refer to them as *simple overall statistical units* and to the others as *complex overall statistical units*.

The definition of the group of firms is, by nature, **independent of borders**. This status is inherently recognized by the European Union (which guarantees the right of establishment in the other Member States and places the group of firms at the heart of competition law) and at the international level: the Uruguay Round agreements explicitly refer to the group of firms to define economic actors in countries that have ratified the service-trade agreements<sup>59</sup>.

We obviously find this "cross-border" approach in International Accounting Standards (IAS/IFRS), since the entities that are subject to them are indeed groups of firms, whose scope encompasses all controlled firms irrespective of their territory of residence.

These criteria for defining actors lead us to define the French-controlled economy as the set of French *overall statistical units*. The use of this approach in macroeconomics is rather rare: to our knowledge, only America's BEA makes economic assessments according to this criterion<sup>60</sup>.

For most uses, the "resident economy"—which is the focus of attention<sup>61</sup>—could be construed as the economy residing on a national reference territory<sup>62</sup>. We must therefore consider for each *overall*

<sup>57</sup> See, for example, C. Picart, "La remontée de l'endettement des grands groupes à la fin des années 90", *Économie & Statistique*, March 2003; E. Chevassus-Lozza, J. Gallezot, and D. Galliano, "Exportations intra-firme ou directes: une alternative pour les firmes multinationales", *Économie & Statistique*, 1999, pp. 326-327; L. Gonzalez and C. Picart, "Diversification, recentrage et poids des activités de support dans les groupes (1993-2000)", INSEE working paper (*document de travail*) G 2006/15.

<sup>58</sup> In this discussion, "control" comprises all the control procedures that are, for example, recognized in Regulation CRC 99-02 (amended) on consolidated accounts. In particular, it includes conventional control exercised through the right to appoint the majority of members of the board of directors.

<sup>59</sup> See Annex 7 to French edition of this report.

<sup>60</sup> See J. Steven Landefeld, Obie G. Whichard, and Jeffrey H. Lowe, "Alternative Frameworks for U.S. International Transactions," *Survey of Current Business* vol. 73 (December 1993), pp. 50-61; Obie G. Whichard and Jeffrey H. Lowe, "An Ownership-Based Disaggregation of the U.S. Current Account, 1982-93", *Survey of Current Business* vol. 75 (October 1995), pp. 52-61; Jeffrey H. Lowe, "An Ownership-Based Framework of the U.S. Current Account, 1995-2005", *Survey of Current Business* vol. 87 (January 2007), pp. 44-46.

<sup>61</sup> However the statistics on the European Union seek to describe an intermediate reality, namely, the economic activity of a group of countries. For some statistics such as external trade and balance of payments, this entails a

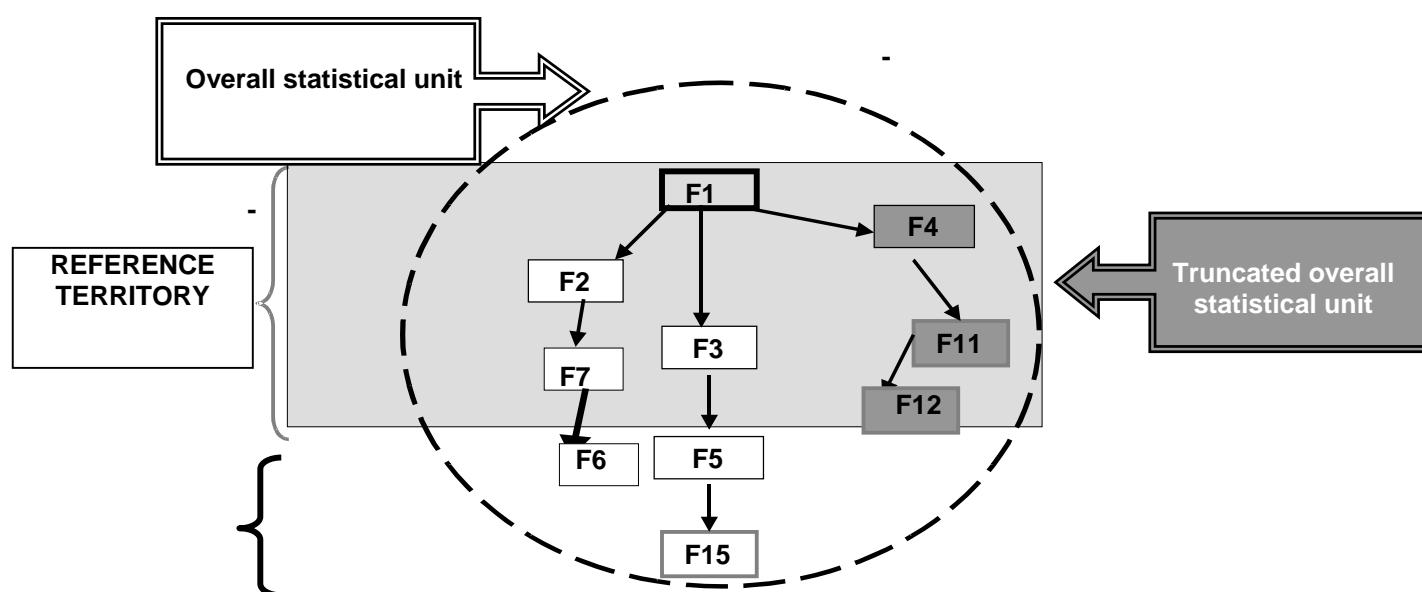
*statistical unit* the economic activity assignable to the part located on the reference territory examined. To this end, we propose the *truncated overall statistical unit*, defined as follows:

- For *simple overall statistical units*, the “truncated” and total units are identical<sup>63</sup>.
- For *complex overall statistical units*, there are two possibilities: (1) All the controlled legal persons in the group are resident, and the “truncated” and total units are identical. (2) If not, we must define a *truncated overall statistical unit*, which comprises the set of firms controlled by the group *and* resident on the geographic territory under study. This second configuration is by far the more common in economic terms, accounting for about five times as many employees as the first.

This *truncated overall statistical unit* has lost the characteristics of autonomy and independence of the overall statistical unit. Its status may vary between two extremes. At the very least, there will be interdependence. In this “minimalist” configuration, the truncated unit is located on the territory corresponding to the nationality of the overall statistical unit, as national territory is usually the predominant nationality for unit locations. At the other extreme, there will be subjection: a predominant proportion of the overall statistical units on which truncated units depend engage in an international allocation strategy involving the group’s firms. As a result of the processes entailed by such a strategy, the truncated unit cannot be regarded as a fully-fledged enterprise—the object of classic economic analysis: we cannot establish links between financing, research, marketing, production, patents, wage policy, and so on at the truncated territorial level. When an overall statistical unit of another nationality is truncated on this territorial basis, the gap may be even wider, as parts of groups of firms that constitute different operating divisions may have only very limited connections with one another.

**Diagram 1: Overall statistical unit, truncated overall statistical unit, and legal units**

In the diagram below, each rectangle represents a legal unit, and each arrow a majority stake. Legal unit F1 is the group head firm.



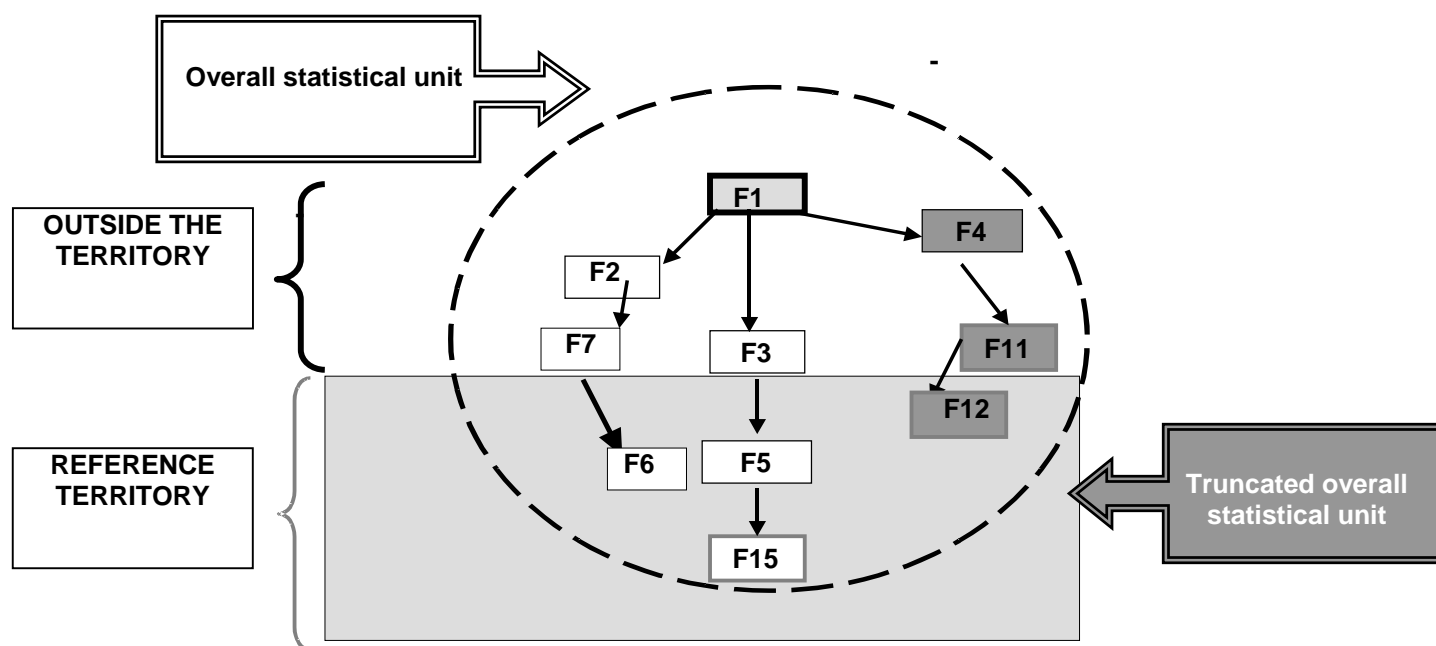
“consolidation” rather than a simple aggregation. This is not the case in EU business statistics defined by the SBS regulation, for the actors continue to be defined at a strictly national level. Consequently, the counting of enterprises at the EU level becomes redundant, and the information on concentration is not very comparable with U.S. data, for example.

<sup>62</sup> Which is not necessarily the territory corresponding to the OSU’s nationality.

<sup>63</sup> Strictly speaking, we should isolate the (few) instances of resident firms that may engage in a resident activity in another State through a local unit that does not constitute a legal person, if that country’s law so allows. In such cases, we also need to “truncate” the firm in the reference territory examined.

Note: This example concerns a group of firms whose group head is located on the reference territory. The *overall statistical unit* comprises the group of firms F1, F2, F3, F7, F6, F5, F15, F4, F11, F12. Its economic characteristics are those of the consolidation of this set of units. The *truncated overall statistical unit* consists of the set of firms F1, F2, F3, F7, F4, F11, F12.

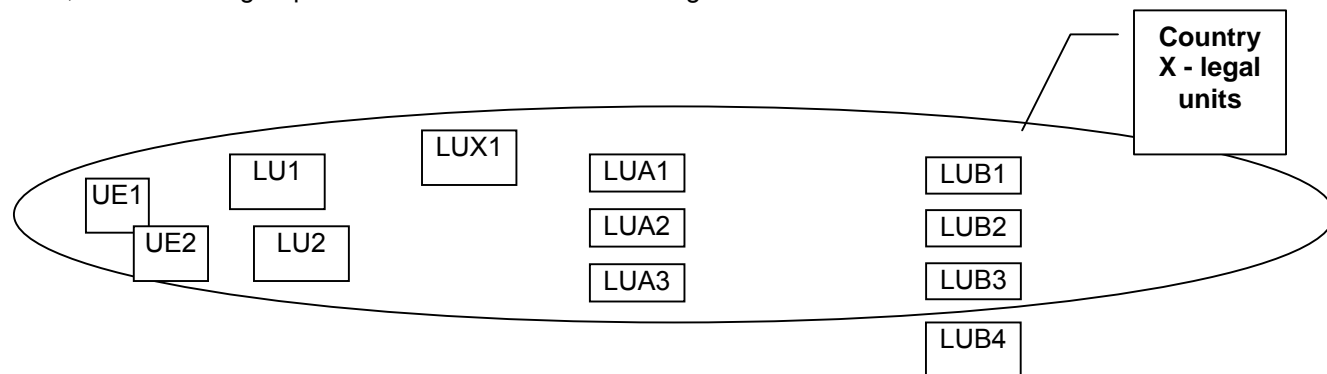
**Diagram 2: Overall statistical unit, truncated overall statistical unit, and legal units**



Note: This example concerns a group of firms whose group head is located outside the reference territory. The *overall statistical unit* comprises the group of firms F1, F2, F3, F7, F6, F5, F15, F4, F11, F12. Its economic characteristics are those of the consolidation of this set of units. The *truncated overall statistical unit* consists of the set of firms F6, F5, F15, F12.

**Diagram 3: Economy controlled by country X (Resident economy of country X)**

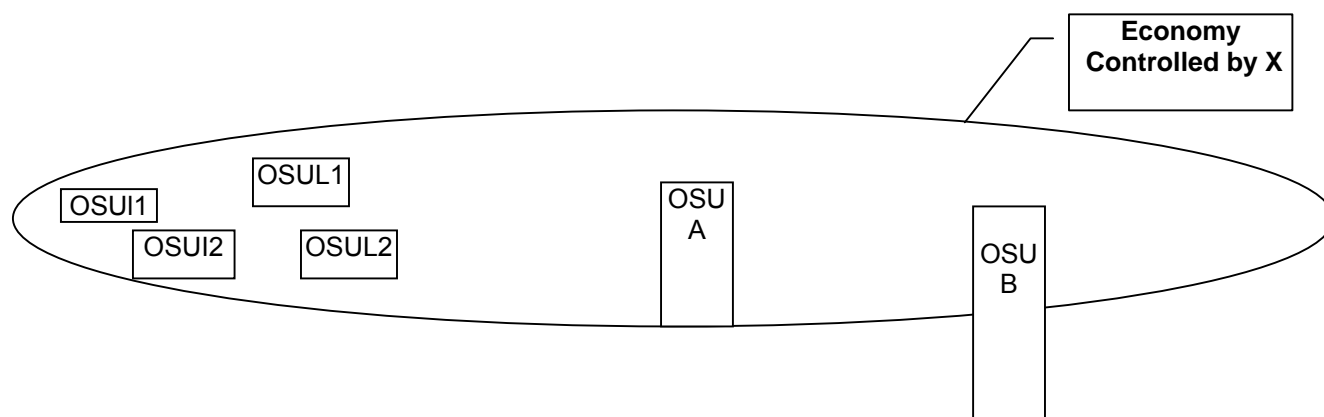
We assume that country X hosts the following legal units: unincorporated enterprises UE1 and UE2; legal units (not controlled by others) LU1 and LU2; legal unit LUX1, which is controlled by a non-resident legal unit; legal units LUA1, LUA2, LUA3, which form a group of firms; and LUB1, LUB2, LUB3, which form a group of firms with the non-resident legal unit LUB4.



When we consider overall statistical units (OSUs) rather than legal units, we thus have:

*OSUI1 and OSUI2, corresponding to LU1 and LU2 respectively*  
*OSUL1 and OSUL2, corresponding to LU1 and LU2 respectively*  
*OSUX1, to which LUX1 belongs*  
*OSUA, comprising LUA1, LUA2, LUA3*  
*OSUB, comprising LUB1, LUB2, LUB3, LUB4.*

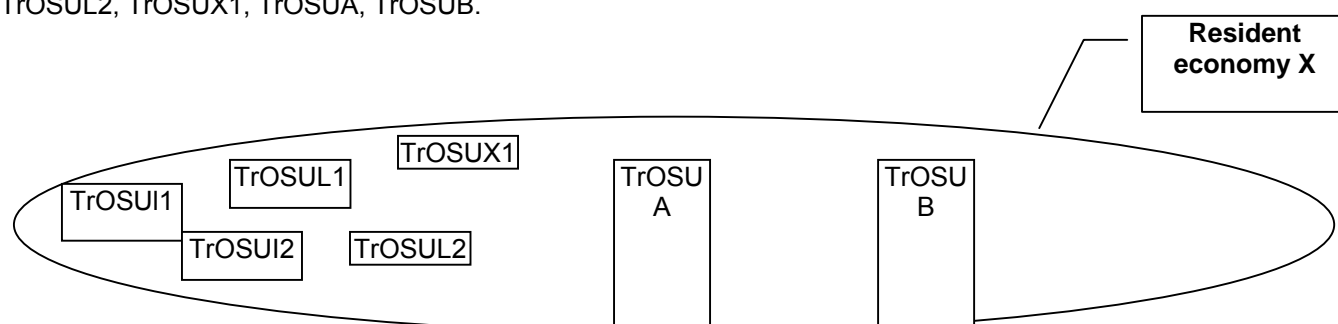
*The economy under country X's economic control is thus defined by the grouping of OSUI1, OSUI2, OSUL1, OSUL2, OSUA, OSUB.*



If we consider the truncated overall statistical units (TrOSU) on country X's territory, we obtain:

TrOSUI1 and TrOSUI2, corresponding to UI1 and UI2 respectively  
 TrOSUL1 and TrOSUL2, corresponding to LU1 and LU2 respectively  
 TrOSUX1, which is identical to LUX1  
 TrOSUA, which comprises LUA1, LUA2, LUA3 and is identical to OSUA  
 TrOSUB, comprising LUB1, LUB2, LUB3.

The resident economy of country X is thus defined by the grouping of TrOSUI1, TrOSUI2, TrOSUL1, TrOSUL2, TrOSUX1, TrOSUA, TrOSUB.



## 6.2.2 Main standards for overall statistical units

### 6.2.2.1 Scope of overall statistical unit

The treatment of enterprises whose legal underpinning is a single legal unit requires no further refinement, since it would be identical to their treatment in the current statistical system.

As regards enterprises whose legal underpinning is a group of firms, some points should be noted:

- "Control" should be understood in its fullest sense, as defined in the French accounting regulation on consolidation CRC 99-02 (amended)<sup>64</sup>. Three main criteria are applied for deciding whether a firm is controlled:

<sup>64</sup> See excerpts in Annex 5 to French edition of this report.

Direct or indirect ownership of the majority of voting rights at meetings of shareholders of the group head company, a majority that enables the controlling entity to appoint managers and take decisions<sup>65</sup>. This majority may be absolute or relative.

Membership in a shareholders' pact, and joint exercise of this control with another stakeholder.

Exercise of control through economic means, with no equity stake.

To preserve consistency with economic agents' own perceptions of these governance phenomena, we propose adjusting the definition of these statistical units to the choices made by the agents themselves.

Consequently, we would not include in the scope of *overall statistical units* the firms in which a group head had the power to exercise control in its capacity as majority shareholder, but for which it declared that this shareholding was not a long-term commitment. Under Regulation CRC 99-02, such legal units would thus be excluded from the scope of consolidation.

As regards investment groups<sup>66</sup>, which declare that they do not exercise influence on the management and development strategy of the subgroups they control, we propose not to regard them as single OSUs either, but as a set of OSUs equal in number to the controlled subgroups. In practice, we observe that such subgroups have a strong public identity, that they too apply this intermediate scope of consolidation, and that their identity is not in doubt.

The case of "family" groups should be noted. We propose that business statisticians should not assume any systematic convergence between the economic decisions taken by members of a same family, nor any solidarity between groups controlled by a same family.

Thus, if two groups of firms A and B are majority-controlled by two different holding companies, they will not be regarded as a single group even if both holding companies have the same set of natural persons as majority shareholders.

### **Some special cases:**

#### **\* Co-enterprises (joint ventures)**

Some groups of firms have established co-enterprises with different legal bases (firms, "economic interest groupings", etc.) to engage in economic partnerships. Often, they are firms each of whose co-entrepreneurs holds a fixed share in the partnership agreements. In the most common arrangement, the co-entrepreneurs hold equal shares.

We propose that, for this type of organization, the proportion of the joint venture corresponding to the equity stake should be incorporated on a flat basis into each partner OSU. This is consistent with the "proportional integration" rule in French accounting regulations.

#### **\* Non-consolidated upstream holding companies**

Some groups contain upstream holding companies that are not identical to the consolidating company designated for accounting purposes. Given the purely legal nature of this type of arrangement, we propose the entity's integration into the scope of the corresponding OSUs. Our main goal is to avoid preserving an economic sector—that of holding companies (APE741J)—whose economic significance would be drastically altered.

#### **\* Financial investors:**

When a set of firms ultimately finds itself under the potential control of a financial investor (such as an institution, venture-capital firm or pension fund), we propose that the potentially controlled firms should not be included in the investor's scope of consolidation, and that they should be defined as a separate OSU.

<sup>65</sup> At present, INSEE's statistics on groups (collected in the Survey on Financial Links: Enquête sur les Liaisons Financières, hereafter LIFI) are confined to majority control.

<sup>66</sup> To take one example; the Wendel Investissements Group: <http://www.wendelinvestissement.com/index.php>.

Note: As regards firms in which OSUs are non-controlling shareholders, they do not lie within the scope of consolidation of any of these OSU, and hence constitute OSUs in their own right.

### 6.2.2.2 OSU identity and changes over time

A group of firms is not a legal person. To speak of its identity, therefore, is not simple, since it is not constituted by law. Yet this identity is essential for conducting economic studies with a time dimension. To analyze changes in a population, we often separate demographic aspects (entry or exit of elementary actors) and aspects of the changes in units that remain constant from one period to another.

Even at the firm level, the situation is not simple (we have seen that “firm” is not identical to “enterprise”, except, no doubt, for firms that do not belong to groups). Capital contributions, mergers, and splits, while preserving the identity of certain actors, alter their profiles—sometimes radically. Statisticians have learned to cope with these phenomena, not without effort, thanks to additional information supplied by the firms concerned.

As regards groups of firms, accountants have developed *pro forma* two- or three-year comparisons to facilitate the interpretation of accounting changes and separate the effects of external growth from those of internal growth.

For now, statisticians are operating in an experimental situation. To our knowledge, only ONE economic study has been published in France on this subject<sup>67</sup>. The principle consists in explicitly defining the continuity between a group at date  $t$  and a group at date  $t+1$  in accordance with specific economic hypotheses, for example by checking that a same subset of group companies at date  $t$  represents a subset of companies of a group at date  $t+1$ , and that at dates  $t$  and  $t+1$  this subset of companies represents at least  $x\%$  of the group in which it is incorporated. The major difficulty is to determine whether we can find a value  $x$  that is high enough for the subgroup common to both groups between  $t$  and  $t+1$  to represent a sufficiently large share of the group, while making sure that a sufficient number of groups has successors when moving from  $t$  to  $t+1$ . There have been simulations on this subject<sup>68</sup>.

It is useful to note that the EU draft regulation on harmonised statistical registers calls for a definition of the identity of a group between years  $t$  and  $t+1$  but that Eurostat is aware that this is not a simple task. France’s experience is probably the first in this statistical field.

### 6.2.2.3 Observable characteristics of OSUs

Once the scope of an OSU is set, we can conceptually define the characteristics tracked by the system of business statistics (we discuss the information systems on which such a construction relies in §8).

In particular, accounting concepts are derived from consolidated-accounting principles.

Some concepts of a more statistical nature deserve special attention here:

Principal activity. We can define it with exactly the same formal rules as those used to determine the principal activities of firms. That is precisely why the regulation on the NACE Rev.1 classification of activities is distinct from the regulation defining the statistical units to which the classification applies. In practice, once we can break down the value added for a set of firms (by approximation, their sold production) by activity, we can apply the same classification algorithms. But the sold production of a set of firms such as an enterprise group is, quite simply, the sum of each firm’s output, net of output sold to others firms in the group. We should also note that the international standards for consolidated

<sup>67</sup> C. Picart, “Le tissu productif: renouvellement à la base, stabilité au sommet”, *Économie & Statistique*, no. 371, 2004.

<sup>68</sup> C. Picart, *Base Longitudinale des groupes*, INSEE working paper (*document de travail*) E2007/02. For a discussion of the principle applied, see Annex 6 to French edition of this report.

accounting include special provisions for separating the measurement of the different activities of the groups concerned (IAS 14)—a feature that shows that the concept of principal activity makes sense for these entities.

Nationality. The EU recommendation in this statistical area consists in defining the group's nationality, as do the OECD statisticians<sup>69</sup>, as the nationality of the country where the group's main decision-making centre is located.

Special points

The country is not necessarily the one where the group head is located.

The nationality is not necessarily the one of ultimate shareholders.

This problem, which was debated at length, has no easily implemented solution that satisfies all stakeholders. We are forced to conclude that there is no self-evident consistency between two realities: first, that multinational enterprises increasingly escape national law<sup>70</sup>; second, that strong demand may persist among statistics users for assigning a nationality to these groups. The problem is all the more acute if the group head's location country is relatively small at the world level, since these groups will be powerfully shaped by the economic activity performed outside the territory on which the group head is located. For example, a growing number of groups of firms exhibit a binational majority, but the assignment of a more specific individual nationality becomes a delicate task. Among listed groups, we can mention very old examples (Royal Dutch Shell) or more recent ones (Arcelor<sup>71</sup>, EADS, Dexia, Alcatel-Lucent).

It appears that the criterion of headquarters location does not necessarily match the group's "real-life experience" and that the best solution for the assignment of a nationality in statistics may be to ask the group directly. In any event, this will require the adoption of procedures other than a purely algorithmic determination.

Stock-market listing. The financing method is regarded as a discriminating criterion for classifying the behaviour of groups. Public offers of securities, particularly initial public offerings, define a subpopulation of economic actors that represents a heavy concentration of the production system (listed groups<sup>72</sup>, of which there are less than 1,000 in France, employ about one-fifth of the country's wage- and salary-earners in the Industry-Wholesale/Retail-Services sector).

We propose that, because of the free circulation of capital, the "listed groups" category be defined irrespective of the place where their shares are traded. The transparency of stock-market information and the establishment of an international identification number (ISIN) facilitate these groups' identification by statisticians, at least with an adequate degree of precision.

Family ownership of a group of firms. Many financial analyses have identified different behavioural traits between listed firms with diffuse shareholders and family-owned enterprises, which we can define as majority-controlled by a shareholder who is a natural person or family. There is variety of nuances around this basic criterion, depending on whether the owner family is expected to participate directly in the group's management, or to hold its stake in the group for a certain length of time<sup>73</sup>.

The following points—of which the literature offers many examples—should be emphasized:

Family ownership does not exclude public listing.

Family ownership does not necessarily imply small group size.

The statistical tracking of this subpopulation is more complex, as it implies a classification based on criteria applying to persons. This combined the difficulties in two major fields of official statistics: (1) business statistics, with (a) its very heterogeneous populations in which the size gaps between

<sup>69</sup> See *OECD Manual of Globalisation Indicators*.

<sup>70</sup> See, for example, J-P. Robé, "L'entreprise en droit", *Droit et société*, vol. 29 (1995), pp. 117-136, available at <http://www.rechts.msh-paris.fr/publications/revue/html/ds029/ds029-09.htm>.

<sup>71</sup> Will the nationality of the future Mittal-Arcelor group be easier to determine?

<sup>72</sup> By law, the listed entity is a single company. But the requirements with which it must comply as a listed company (advertisements, accounting) mostly involve group-related aspects, notably as regards consolidated accounting. This is a complex phenomenon, which cannot be fully described here.

<sup>73</sup> For a complete survey of the topic, see, for example, J. Allouche and B. Amman, "L'entreprise familiale, un état de l'art", *Finance, Contrôle et Stratégie*, vol. 3, no. 1, March 2000.

observed units are very large, and (b) a rather significant identification capacity, notably thanks to mandatory legal advertisements; (2) personal statistics, which must make protection of privacy one of its top priorities. We should note, however, that several organizations representing businesses would like the official statistical system to consider setting up such a tracking procedure.

#### **6.2.2.4 Links between characteristics of the OSU and those of the legal units that compose it**

As regards accounting aggregates, the relationship between the OSU's characteristics and those of its constituent legal units is determined by the consolidation method. For the truncated OSU, the method would probably be confined to pre-consolidation, i.e., only the elimination of intra-group flows and outstandings. This is because the cost of the restatements required to obtain full consolidation (see box 1) would, no doubt, be disproportionate to the marginal benefit for statisticians.

From the statistician's point of view, i.e., with a margin of imprecision higher than that of the certified public accountant, we roughly expect the following:

an additive relationship for selected variables such as gross margin, value added, gross operating surplus, employers' social contributions, and investment;  
more complex relationships for other variables also appreciated by statistics users, such as production, sales, dividend distribution, and non-bank debt.  
Information on number of employees is obviously additive.

For truncated OSUs, exports/imports are additive as well. However, we would probably need to separate intra-group imports/exports from non-intra-group imports/exports, for they potentially obey different or even complementary rationales.

For multinational OSUs, the "import/export" concept itself ceases to be meaningful. It is replaced by the concept of "sales on a reference territory", which consists of total sales by the entire OSU irrespective of the place(s) of residence of the legal units that contribute to the sales. The criterion of sales realized by subsidiaries residing in country Z is far less commonly used. Symmetrically, the concept of "market share" for a truncated OSU makes little sense.

#### **6.2.2.5 OSUs are more diversified than legal units**

We find that OSUs are more diversified than legal units (see §10.6 on measuring diversification). This observation can be made only for OSUs whose legal basis is a group of firms.

Consequently, while the use of the OSU allows an analysis of the economy well-focused on the actors endowed with strategic decision-making power, the choice comes at the price of a more complicated relationship between actors and markets for goods and services.

Now some users, particularly trade associations, have reiterated their interest in economic information on industry branches. Absent a fully-fledged system for observing branches—which would have to rely on cost accounting for all actors<sup>74</sup>—the official statistical system resorts to sectoral statistics on legal units, i.e., to aggregating the accounts of units whose principal activity (majority activity) is the activity of interest. Because of the modest weight of secondary activities, the treatment of sectors as the equivalents of branches is—under such hypotheses—relatively consistent. Such information is also useful to some economists; national accountants, with the aid of models, prepare estimates of "operating accounts by branch" from information on legal units.

We are forced to acknowledge that the average level of diversification among groups does not seem to allow statisticians to make such approximations with sufficient precision any longer.

That is why, for such uses, we need to consider other statistical units than OSUs.

<sup>74</sup> The implementation of cost accounting is a decision specific to each enterprise, and rests on the specific conventions of that enterprise. Statisticians have always found it difficult to collect such information, even for the least complex flows to monitor in a cost accounting framework, such as the breakdown of sales or purchases by product "family".

### Box 1 - Principles of accounting consolidation

**Accounting consolidation** consists in preparing the financial statements of a group of firms, for statutory (mandatory) publication but also for the group's internal needs. For this purpose, accountants aggregate the accounts of each of the companies forming the group and restate the figures as if they applied to a single entity.

In the non-consolidated accounts of a company that may prepare consolidated accounts, the value of securities booked to the balance sheet is the only item of information that we possess on shareholdings. The value generally reflects the securities' acquisition cost but obviously does not enable us to measure the enterprise's financial activity. This is because the securities actually represent other fixed assets, the financial position, and the results for which the group is responsible.

The **objective of consolidated accounts** is to provide the external reader with a more economic vision of the activity, net worth, and performance of a set of entities held by a consolidating enterprise. Consolidated accounts are not constrained by the tax and legal rules for asset separation on which non-consolidated accounts are based. They thus offer a purely economic vision.

The restatements have the following purposes:

- To eliminate any transactions (and outstandings) between group companies. In particular, cross-shareholdings are eliminated: the registered capital of a subsidiary and the equity stake in that subsidiary held by the parent company are netted out to zero.
- To harmonize accounting practices in the various firms.
- To show transactions in an exclusively economic perspective, disregarding the strictly tax-determined requirements of non-consolidated accounting.

We refer to the first phase as **pre-consolidation** and to the second and third as **restatement**.

It is also possible—and sometimes necessary—to consolidate a subset of group companies. This operation is called **subconsolidation**.

#### Legal and regulatory requirements

The Act of 3 January 1985 established the principle of consolidation in France. It requires commercial firms and public-sector enterprises to maintain and published consolidated accounts. The Act is based on the Seventh EEC Directive. Consolidated accounts published under French standards must comply with Regulation 99.02 of the French National Council for Accounting<sup>75</sup>. In 2002, the European Union Council and Parliament decided to adopt International Financial Reporting Standards (IFRSs) as the benchmark for preparing consolidated accounts of groups of listed companies for each accounting period opened after 1 January 2005.

<sup>75</sup> Conseil National de la Comptabilité: CNC.

### 6.3 The logic of a system based on the operating division

As noted in chapter 3 above, the economic theory of organizations holds that in diversified (“M-form”) enterprises one can identify a central strategic decision-making unit isolated from the production arm and comprising several operating divisions that take routine decisions. By focusing on such operating divisions, we can restore a satisfactory correspondence between economic entities and the goods and services markets.

#### 6.3.1 Founding principles of intermediate statistical units

First, the section of the economy comprising unincorporated enterprises (whose legal basis is the natural person) continues to be described as before: each unincorporated enterprise corresponds to one single *intermediate statistical unit* (ISU).

As regards enterprises whose legal underpinning is a legal person not controlled<sup>76</sup> by any other, we might argue that, in the event of diversification, each activity should be represented by a different statistical unit. However, logic must give way to pragmatism, for two reasons: first, the relatively small size of most enterprises in this category<sup>77</sup>; second, the absence of standardized cost accounting. It is hardly feasible to use this part of the population of economic actors tomorrow in an attempt to construct a more ambitious system than the current one. Such enterprises will therefore continue to be described in the same way as today—in fact, using the same approach as the one proposed for this category in §6.1. Such enterprises will therefore constitute here a single *intermediate statistical unit*.

Next, for each group of firms—which, as explained in §6.2, we regard as collectively forming a single **overall statistical unit**—we distinguish two cases:

- either the OSU in question is not diversified, and it then constitutes a single intermediate statistical unit;
- or the OSU is diversified: we can accordingly divide the OSU into as many units as there are different activities, each unit forming an intermediate statistical unit.

A special case should be singled out: in certain groups of firms engaged in industrial, commercial or service activities that correspond to the multidivisional enterprises of economic theory, there exists a financial operating division that performs services for third parties. One example is consumer-credit divisions. We must therefore allow for the fact that some OSUs, while mostly engaged in the non-financial sector, will perform secondary activities of a financial kind.

The *intermediate statistical unit* proposed is not constructed directly from legal units, at least not in the most general approach. We must therefore begin by examining the *overall statistical unit*—the only entity vested with independence in strategic decision-making—and determine how it is organized into operating divisions. The definition of the *overall statistical unit* being independent of borders, the operating divisions thus formed may be just as independent of borders. And that is indeed generally the case. In fact, this concept is reflected in the English term “segment” in the IAS 14 standard. The *intermediate statistical unit* does not possess the characteristics that would allow it to be described as a fully independent enterprise. First, its strategy may be shaped by decisions taken at the OSU level. Second, its own dynamics may be affected by that of the other ISUs. This may be beneficial for the ISU, if the existence of vibrant ISUs in the group enables it to receive financial support in difficult times—support that it might not receive from the banking sector, or at least certainly not on the same terms. But this may slow its own business momentum if it is called upon, in turn, to support other ISUs. In fact, that is the reason why, for several decades, the U.S. competition authorities objected to the involvement of groups in different economic sectors<sup>78</sup>. And the same reason explains why, today,

<sup>76</sup> As used here, “control” comprises the range of control arrangements recognized, for example, in Regulation CRC 99-02 (amended) on consolidated accounts. In particular, it includes standard control defined by the power to appoint the majority of members of the board of directors.

<sup>77</sup> Very few enterprises of this type employ more than 250 people.

<sup>78</sup> O.E. Williamson, in *The Economic Institutions of Capitalism*, chapter 11, “The modern corporation”, quotes a statement by the Federal Trade Commission on the issue: “Threatened with competition in any one of its various activities, it [the giant conglomerate] may well sell below cost in that field, offsetting its losses through profits made in its other lines—a practice which is frequently explained as one of meeting competition.”

institutional shareholders discount the value of diversified groups—of which there are currently few examples in the U.S.

Thanks to *intermediate statistical units*, we can define economic sectors under French control, which are a decomposition of the total French-controlled economy defined by OSUs.

To analyze the resident economy, we must define *truncated intermediate statistical units* (TrISUs). TrISUs, in turn, constitute a subsection of *truncated OSUs*. It should be noted that we can examine ISU truncations in different territories, and not necessarily in the controlling country alone. In particular, the truncation of foreign groups in national territory is often used.

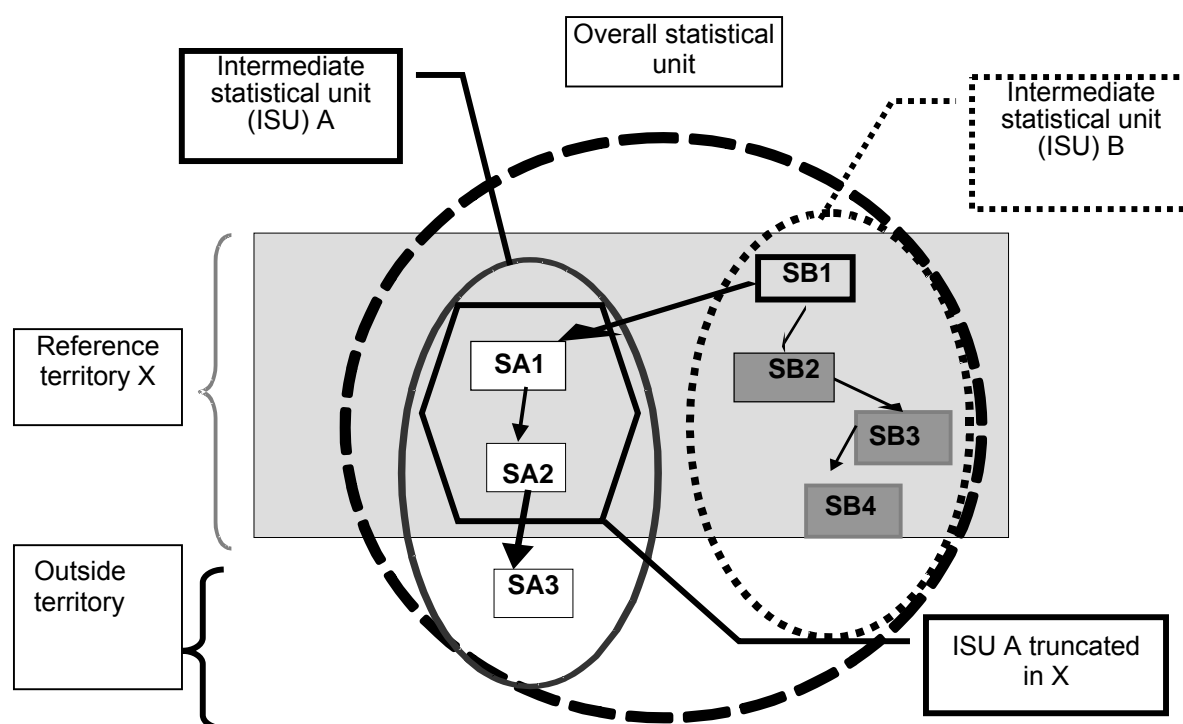
TrISUs do not necessarily enjoy the same autonomy as ISUs in routine management, and this is all the more true if we examine the truncation in a territory other than the one corresponding to the group's nationality.

If we continue to denote the set of statistical units engaged in the same economic activity as an "economic sector", a resident economic sector at TrISU level will comprise:

- *simple TrISUs*: unincorporated enterprises or independent legal units or the groups of non-diversified firms each forming a TrISU in their own right, and engaged in the economic activity under consideration
- *complex TrISUs*: operating divisions of OSUs, truncated in the territory, and engaged in the activity.

We illustrate some of these concepts with the diagrams below.

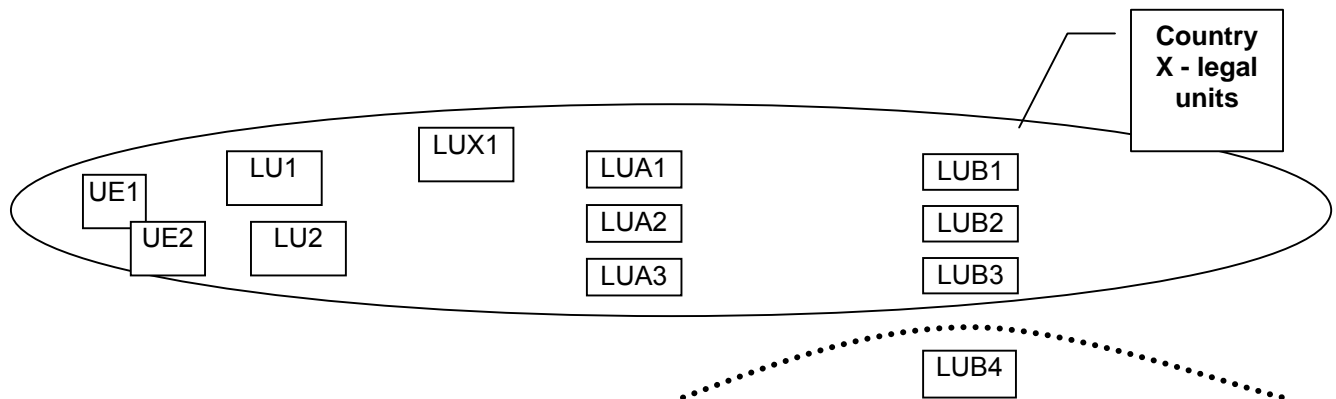
**Diagram 4**



**Diagram 5: Economy controlled by country X (Resident economy of country X)**

We assume that country X hosts the following legal units: unincorporated enterprises UI1 and UI2; legal units (not controlled by others) LU1 and LU2; legal unit LUX1, which is controlled by a non-resident legal unit; legal units LUA1, LUA2, LUA3, which form a non-diversified group of firms OSUA; and LUB1, LUB2, LUB3 which, together with the legal unit LUB4, form a diversified group of firms

OSUB comprising two intermediate statistical units, ISUBA and ISUBB, with BA corresponding to LUB1 and BB to LUB1, LUB3, LUB4. The units perform only two activities: NAFa and NAFb. UI1, LU1, LUX1, OSUA, and ISUBA engage in activity NAFa; UI2, LU2, ISUBB engage in activity NAFb. LUX1 engages in activity NAFb.



When we consider overall statistical units (OSUs) and intermediate statistical units (ISUs) rather than legal units, we thus have:

OSUI1 and OSUI2, corresponding to UI1 and UI2 respectively, with  $ISUI1 = OSUI1$  and  $ISUI2 = OSUI2$

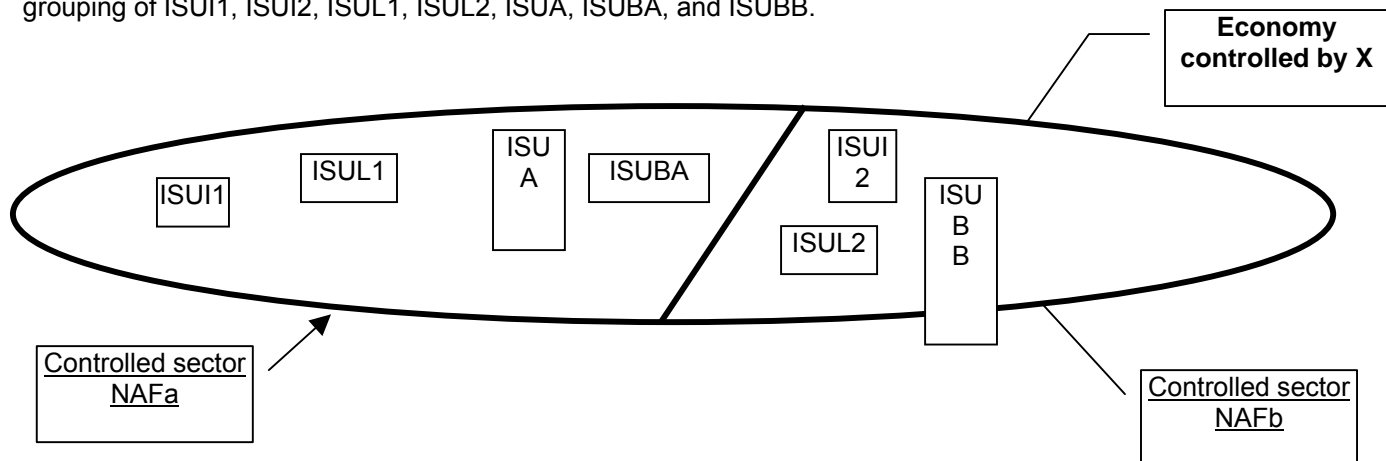
OSUL1 and OSUL2, corresponding to LU1 and LU2 respectively, with  $ISUL1 = OSUL1$  and  $ISUL2 = OSUL2$

OSUX1, to which LUX1 belongs

OSUA, comprising LUA1, LUA2, LUA3, with  $OSUA = ISUA$

OSUB, comprising LUB1, LUB2, LUB3, LUB4, which breaks down into ISUBA and ISUBB.

The economy under country X's economic control, viewed in sectoral terms, is thus defined by the grouping of ISUI1, ISUI2, ISUL1, ISUL2, ISUA, ISUBA, and ISUBB.



If we consider the truncated intermediate statistical units (TrISUs) on the territory of country X, we obtain:

TrISUI1 and TrISUI2, corresponding to UI1 and UI2 respectively

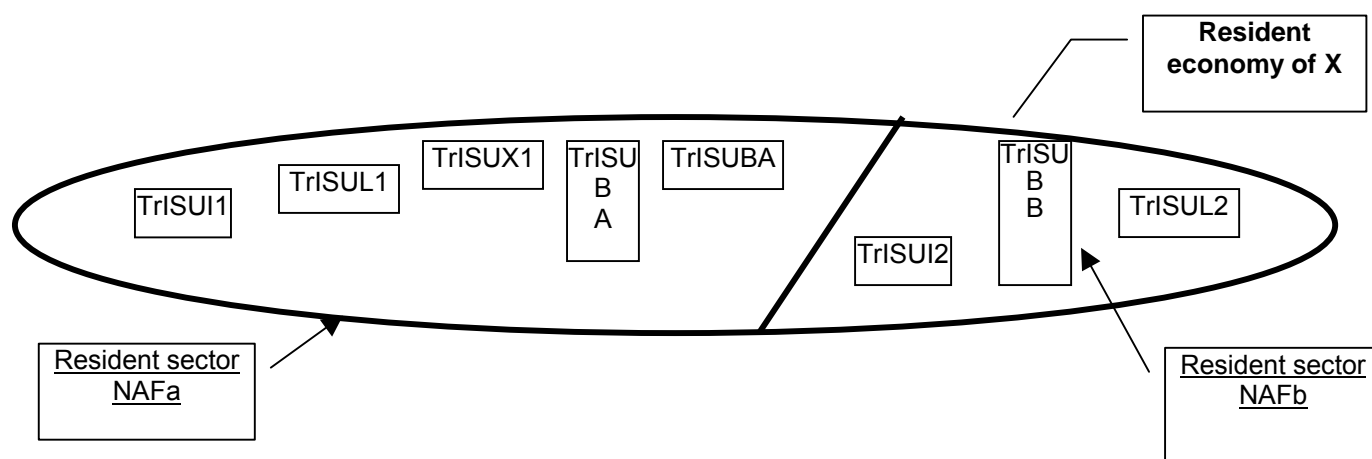
TrISLU1 and TrISLU2, corresponding to LU1 and LU2 respectively

TrISUX1, identical to LUX1

TrISUA, which comprises LUA1, LUA2, LUA3 and is identical to ISUA

TrISUBA, corresponding to LUB1, and TrISUBB, corresponding to LUB2, LUB3.

The resident economy of country X is accordingly defined by the grouping of TrISUI1, TrISUI2, TrISLU1, TrISLU2, TrISUX1, TrISUA, TrISUBA, and TrISUBB.



### 6.3.2 Main standards for intermediate statistical units

#### 6.3.2.1 Scope of intermediate statistical unit

The *intermediate statistical unit* results from a segmentation of the *overall statistical unit*. It can therefore contain no legal unit or part of legal unit that does not belong to the OSU to which it belongs itself.

The segmentation of OSUs into ISUs is a procedure known as “profiling”.

Some general principles are applied to this segmentation in order to ensure comparability and relevance for the resulting statistics:

- Essentially, the ISU should be based as far as possible on the managerial segmentation of the group of firms in which it operates and to which it reports. The most suitable entity for defining a meaningful basis in terms of economic analysis is the group. In particular, geographic locations should be disregarded unless the group views them as a relevant criterion<sup>79</sup>.
- The ISU is not necessarily composed of “whole” legal units. It may, instead, result from the partition of various legal units engaged in several activities. This implies extensive cost accounting and management control, but that is the case, in practice, for relatively large groups of firms—the category most commonly engaged in multiple activities. Nevertheless, we find that in most actual cases studied until now, the different ISUs correspond to clearly distinct legal units<sup>80</sup>.
- In some large groups of firms, we observe the existence at “group” level of legal units that serve as the legal underpinnings for decision-making or support functions characteristic of “M-form” enterprises as defined by organization theory. While we can preserve the separation between these entities for individual analysis, they pose a problem in statistical terms for the following reasons:
  - ❑ One generally expects that the total set of activity sectors constitutes the entire economy. If we fail to include these entities, one way or another, in the intermediate statistical units that would serve as the basis for sectoral statistics, we could not preserve this exhaustiveness property.
  - ❑ To relegate these activities to special ISUs would entail the creation of an economic sector comprising “group-head activities”. This poses several problems:
    - It would be contrary to the underlying premise of this report, which proposes a business-statistics approach that describes market flows. A sector such as the one above would provide nearly all its services on an intra-group basis, outside the market.

<sup>79</sup> Which seems to be a rather infrequent occurrence among the large listed groups, for example.

<sup>80</sup> We may assume that the logic of operating-division autonomy with respect to the group as a whole necessarily reflects an autonomy of operating divisions with respect to one another, and that a nested legal structure in which several operating divisions are active in the same legal unit is not very compatible with this autonomy.

- The sector would contribute to mistakenly assigning to the service sector a set of activities most of which are, in practice, linked to predominantly industrial groups of firms.  
The Working Group consequently proposes that these “group activities” should be broken down between different operating divisions isolated by the group, in order to arrive at a genuine partition of OSUs into ISUs. If need be, this breakdown could, in fact, be achieved through very simple approximations, prorating the economic aggregates that characterize the operating divisions. But this allocation should not be confused with the formation of intermediate statistical units that would be independent entities.
- ISUs—like the operating divisions of groups of firms—are involved in intra-group flows in some groups, but in a smaller proportion than firms.

### 6.3.2.2 ISU identity and changes over time

As with OSUs, statisticians must manage the analysis of the identity of ISUs and their changes over time. The same methods will be used in both cases, as the issue raised is analogous in formal terms. A special question will require study: is an ISU’s identity linked to that of the OSU to which it belongs, or is it separable? For example, when a large group sells a business segment to another large group—with no other changes at the industrial level—can we regard the segment as unchanged? Recall that our use of the ISU is intended (1) to describe economic activities at a level that can be linked to markets for goods or services, and (2) implicitly, to equate economic sector and “branch” (homogeneous activity). For these reasons, we may therefore consider that an ISU’s continuity is not linked to the identity of the OSU to which it belongs.

### 6.3.2.3 Observable ISU characteristics

The accounting aggregates that characterize ISUs are measured with the subconsolidation method, which consists in applying consolidation methods to a narrower scope than the group.

The others concepts analyzed for OSUs can be reconsidered with a view to their application to ISUs:

- principal activity: as with the OSU, we can describe principal activity with the same algorithms, measuring only the flows external to the ISU.
- nationality: it is that of the OSU to which the ISU belongs.
- stock-market listing: this attribute remains relevant at the ISU level as well, although less frequently.

### 6.3.2.4 Links between characteristics of ISUs and of the legal units that compose it

There is no simple relationship between the ISU’s principal activity and the principal activity of the legal units (or parts of legal units) that compose it, just as there is none between a firm’s principal activity and of its local units<sup>81</sup>.

The *truncated ISU* could, by the same logic, be characterized by the ISU’s principal economic activity, and with even more relevance if its intra-group flows consist only of sales (or purchases).

We must, no doubt, consider that the ISU’s overall activity augments the relevance of market-linked analyses, whereas the activities of subsidiary legal units can be very important for the functional analysis of the economy. An industrial group’s own-account transport subsidiary has only an indirect connection with the transport-services market. In particular, its short-term activity does not depend on the market, and some parts of its structure are probably atypical, for it does not need a sales/marketing department to generate business, and its financial management presumably has a lesser need to take customer-solvency risks or business-cycle risks into account. But the observation of the ISUs’ transport function is surely necessary and should be conducted whatever the organization strategy chosen by the ISU: internalized/outsourced, spun off/not spun off to a subsidiary. We can continue to investigate these aspects by means of specific surveys, which will be more relevant.

<sup>81</sup> In formal terms, this observation also applies to the OSU. However, for OSUs not consisting of a single ISU, “principal activity” is a concept to be handled with greater qualifications, since the principal activity represents, on average, a smaller percentage of total activity. As a result, the explanatory power of this characteristic should be diminished.

### 6.3.3 Selected examples using publicly available information

If we examine the Bouygues Group website <http://www.bouygues.fr/us/index.asp>, we find that it describes itself as a “diversified industrial group”<sup>82</sup>. It is engaged in several “businesses” grouped into “two sectors”. The “businesses” are: Construction, Property development, Road works, Media, and Telecoms. The group also mentions its minority stake in the Alstom Group, which focuses on other businesses: energy and transport.

The Construction “business” is linked to a specific site for “Bouygues Construction”, also called “Group”. It is divided into “entities” described as follows: “Organised in seven complementary entities, Bouygues Construction has a network of [...] companies [...]”. Each entity is composed of French or foreign subsidiaries. For example, Bouygues Enterprises France-Europe “develops its business through eleven major subsidiaries (Acieroid, Bouygues Belgium, Bouygues UK, DV Construction, GFC Construction, GTB Construction, Losinger Construction, Marazzi, Norpac, Pertuy Construction, Quille), a network dedicated to property development (Cirmad), and a company that specialises in prestressing and repair of civil engineering structures (VSL France).”

In the vocabulary of organization economists, the Bouygues group is a conglomerate in the American sense.

In the case of Bouygues, the *overall statistical unit* referred to earlier would comprise the set of firms under its majority or joint control. In particular, Alstom would be excluded. Each of the subgroups/businesses (Construction, Property development, Road works, Media, Telecoms) would be an *intermediate statistical unit*. Note 17 to the financial statements in the 2005 Annual Report, entitled “Segment Information”, mentions an additional activity of the holding-company type under the heading “Bouygues SA and other activities”.

Another example is the Renault Group<sup>83</sup>, which lists two businesses: car manufacturing and finance. The Group conducts each business through a set of subsidiaries, as noted in an appendix to the AMF reference document<sup>84</sup>. For statisticians, it is very important to separate activities in the financial sector from those outside that sector. For Renault, the very likely solution would be *one overall statistical unit* and *two intermediate statistical units* (one for the financial activity and one for the car-manufacturing activity).

Some groups divide their business into two segments. Sanofi-Synthelabo, for example, lists vaccines and pharmaceuticals<sup>85</sup>. But for the business statistician analyzing enterprises, these two activities would be included in the same sector of NAF Rev.2—the French classification of economic activities—which aggregates them in the same “class” (the most detailed level of NAF). This would result in a single intermediate statistical unit, identical to the overall statistical unit.

## 7 Should some networks be included in the definition of the enterprise?

To improve the description of the main actors in the production system, we should revise statistical units by giving more room to groups of firms or their operating segments. As we have seen, these now emerge as the levels endowed with true decision-making autonomy. Other actors are becoming more important as well, but are still largely ignored by official statistics. That is why some members of the CNIS Working Group felt it would be interesting to examine other major structural entities in the production system. Hence the formation of a sub-Working Group specifically devoted to this issue, which met in 2005-2006. We were thus able to identify the networked organizations that should be covered in order to enhance economic analysis in accordance with needs expressed by business and academic users. We then proposed an appropriate, realistic statistical observation system for monitoring the most structurally effective forms of network organization (involving the possible definition of new statistical units). The main findings are described below<sup>86</sup>.

<sup>82</sup> The quotation marks indicate the terms found on the group’s website.

<sup>83</sup> See [http://www.renault.com/renault\\_com/en/main/20\\_FINANCE/](http://www.renault.com/renault_com/en/main/20_FINANCE/).

<sup>84</sup> Autorité des Marchés Financiers: the French Financial-Markets Authority.

<sup>85</sup> See [http://en.sanofi-aventis.com/investors/p\\_investors.asp](http://en.sanofi-aventis.com/investors/p_investors.asp).

<sup>86</sup> For more details, see the report in Annex 8 of the French edition of this report.

### 7.1 Networks structure to the production system through non-equity links

The sector in which networked entities are most prominent is wholesale/retail trade. Networks tied to brand.

### 7.3 Analysis of networks by importance and legal basis

#### 7.3.1 The franchise

This very old organizational form emerged nearly simultaneously in France and the United States in the 1930s. It is now widespread in all developed countries and particularly in France (for purposes of international comparison, we should note that the U.S. apply a broad definition of franchise that includes such forms as dealerships; only the “business format” component is comparable to the French or European franchise).

A jurisprudential approach enables us to characterize the franchising contract with precision on the basis of three features: granting of use of brand or logo, transmission of know-how, and provision of continuous assistance to the franchisee. The EU Code of Ethics for franchising incorporates these main points, ensuring comparability for this organizational form between EU countries. In practice, France allows not just a single franchising contract but several complementary contracts, including leasing or commission-affiliation contracts. This does not prevent a clear definition of. In fact, networks most often display plural forms (legally independent points of sale owned outright and franchised outlets) except in certain service sectors such as real-estate agencies, where some networks may be composed exclusively of franchisees.

An annual census by the French Franchise Federation<sup>87</sup> since 2000 and a specific annual survey of franchisers and franchisees conducted by CSA since 2003 provide framework data. In early 2006, the FFF reported 929 networks and 39,510 franchised points of sale, indicating brisk growth since 2004 and an even distribution between retailing and other services.

On balance, therefore, we are dealing with a clearly defined networked structure, most often with plural forms.

Empirical observations in many countries (such as the U.S., France and Brazil) have shown a stable “plural form” rate. Many economic analyses have provided theoretical arguments in favour of the assumption that plural-form networks are not a transient phenomenon but a lasting organizational form because it is optimal under certain conditions (see Pénard-Raynaud-Saussier 2003). The same applies to the diversity of incentive mechanisms linked to network characteristics.

U.S. studies (see Blair-Lafontaine) suggest that franchises have broadly reached maturity in America, with weak growth in the total number of networks and an enlargement of existing networks. The French situation appears to be different, with a few sectors where franchise may still be expanding.

#### 7.3.2 Cooperative groupings of retailers

Another very widespread organizational form of French retailing is the grouping of independent business owners. The most common legal basis for the grouping is the retailers’ cooperative (whose status is defined by the Retail Trade Act of 1972).

In practice, this organizational form shares a number of features with franchising: a structure based on a chainstore brand, rules of operation for managing entries and exists, but undoubtedly with a larger variety of organizational arrangements. The main difference with the franchise is the mode of governance: the franchiser’s unilateral decisions are at odds with the functioning of the cooperative members “club”. Indeed, the noteworthy feature of this type of network is a “grass-roots” momentum, a brand image that network members see as a shared value, and a cooperation that does not necessarily involve know-how transfer. All these characteristics set retailers’ groupings apart from the franchise networks. The criteria noted earlier, which enable us to distinguish between networks (cooperation, incentives, control, safeguards, coordination), prove useful and operational.

According to the French Federation of Associated Retail Chains<sup>88</sup>, 60 national groupings managed 110 chainstore brands, 34,500 points of sale, and about 400,000 employees in retailing and market services in 2005.

<sup>87</sup> Fédération Française de la Franchise (FFF).

<sup>88</sup> Fédération des Enseignes du Commerce Associé.

### 7.3.3 Other forms of cooperatives

Cooperative-based networks exist in non-retail sectors as well. We can count five organized sectors, identifiable through five national federations that have adopted specific statutes based on cooperative principles: dual status (associate and customer), “one person/one vote” principle, and distribution of surpluses (under the provisions of the 1947 Act). Cooperatives play very different roles in each sector: in agriculture, cooperative organization is nearly hegemonic; in craft trades and transport, cooperatives are numerous at the local level but have a less powerful structural influence; elsewhere—in manufacturing, wholesaling, and the professions—they constitute a very small minority.

These organizational forms have evolved over time: local associations of business owners (syndicats) start out by forming consortia, then cooperatives or groupings of independent SMEs. The first step is centralized purchasing, followed by sales/marketing functions and coordination. Some observers ask whether the growth of coordination does not lead to a form of franchise and if the de facto management of the cooperative grouping does not draw it closer to the franchise. But the patterns of change are very varied: some franchise networks may revert to a cooperative form; on the other hand, cooperatives may set up franchise networks to grow their business (examples include Demeco and Intersport)—hence the plural-form network.

Meanwhile, the cooperative, a fully-fledged enterprise endowed with legal personality, can establish subsidiaries under ordinary law and act as parent company; for instance, major retailers’ cooperatives have often spun off a number of their activities to conventional-status subsidiary firms in which investors can play a role. This explains the emergence of groups of firms whose rationale can be understood only with relation to the entire grouping.

### 7.3.4 Other partnership contracts

We can thus identify two extremes: the franchise (tightly framed in legal terms through contracts) and the cooperative grouping. Between these two forms, we observe a continuum of networks; some are based on very simple kinds of contracts (commission-affiliation, common in the ready-to-wear clothing sector; concession); others seem governed by franchise-like contracts but without genuine know-how transfers (for example, horizontal network between expert professionals).

### 7.3.5 Alliances and other forms of networks

Some sectors such as consulting businesses appear to operate, instead, as opportunistic alliances without a long-term structure. This means that there are no true structured networks but rather temporary alliances that do not actually constitute stable networks comparable to franchise networks of groupings of independent businesses.

Besides stable networks, other partnerships exist such as subcontracting, alliances, and local production systems (or “clusters”), which the Working Group has not analyzed in greater detail. In industrial sectors, the networks set up around subcontracting relationships or alliances are important to identify for an in-depth analysis of how sector function. Nevertheless, these networks do not enable us to define new autonomous decision-making units: they are partnerships between units that remain autonomous. Such “structuring” relationships would be worth observing statistically via surveys such as ERIE 2003<sup>89</sup>.

### 7.3.6 Conclusion on network forms

A rapid examination of the real-estate sector showed us that what seemed to be a set of stable, long-term networks actually consisted of enterprises with branch offices, groups of firms, franchises, or groupings of independent businesses. We are tempted to generalize this finding to all economic sectors.

Thus, beyond the apparent diversity of network forms and associated contracts, the first two organizational forms (franchise and cooperative grouping) appear to be by far the prevailing forms. These two extremes converge in the network’s external display around one or more retailer names, and they diverge on two points: know-how transfer (a structuring force for the franchise, a more limited process for the cooperative grouping); the hierarchical relationship (strong and vertical for the franchise, horizontal for the grouping). Between these extremes, there exists a continuum of

<sup>89</sup> Enquête sur les Relations Inter-Entreprises (Survey on Business-To-Business Relationships).

combinations of contracts. In the retail trade, the extremes are embodied in the notion of “organized independent merchants”.

## 7.4 Tracking networks in official statistics

### 7.4.1 Information needs

Several Working Group members expressed the need for information on networks, emphasizing the two main organizational forms. Their needs concern (1) the identification of network actors and (2) the characteristics that will allow a better description and analysis of the networks.

- a) Network size: size in number of units, turnover (or number of employees), from which one can determine average sizes
- b) Network composition: proportion of chain stores and franchisees (plural-form rate), distribution of franchisees by number of points of sale (a very common situation)
- c) Network presence broken down by detailed sector and network category
- d) Information on the intensity of intra-network control: key dimensions of contracts and control procedure, etc.
- e) International penetration of networks (by network-head nationality)
- f) Heterogeneity of points of sale (size, location, frequency of multi-franchise, etc.)
- g) Comparative performance of network members (chain store vs franchisees?)
- h) IT-based network structure.

All of this information should allow a fuller treatment of **the following issues**:

- . Economic concentration and market power:

Mass merchandising is structured around two well-defined groups: integrated large-scale and “independent organized retailing” (i.e., franchises plus groupings). It is essential to take networks into account in order to measure the actors’ actual concentration (upstream concentration with respect to suppliers, downstream concentration of points of sale). The same phenomenon should play a role in other sectors.

- . Comparative analysis of performance

- . Enterprise demographics and survival rate by organizational form (do franchisees have higher survival rates than others?)

### 7.4.2 Relevant statistical units for observing and analyzing networks

The previous analyses are an argument in favour of observing networks or at least their major forms. Above a certain size and if the unit is relatively stable over time, it would be advantageous to introduce the following units: network, network head, and enlarged group.

#### 7.4.2.1 A new statistical unit: the network

Initial investigations on networks have given precedence to brand networks: the brand (or corporate banner) denotes a specific business concept and allows us to identify networks. This has enabled us to define the brand network as “the grouping of at least seven points of sale under the same banner, a notion commonly taken to designate a name or logo on the shopfront” (the threshold of seven is simply intended to confine the observation to networks of a certain size). In practice, the brand is the visible part of the network and therefore easy to observe, but the network can be larger than the brand (unbranded shops). Accordingly, the 2006 survey on retail networks used the broader concept of network, which can include several brands as well as unbranded shops. The survey’s explanatory note defined the network as “a set of points of sale and a network head that maintain lasting relationships by establishing a community of interest; most networks promote a brand but some simply join a central purchasing or product-listing organization without the points of sale being obliged to display a brand”. This definition encompasses the prevailing network forms, i.e., the franchise and the cooperative grouping.

The initial statistical analyses of networks have confirmed that network coordination was handled by a unit described as “network head”. The unit knows the network’s scope and manages its operations. It would serve as the statistical collection unit for observing the network, and as the new statistical unit of analysis.

The franchiser clearly plays this role for franchise networks.

For cooperative groupings, the situation is sometimes more complex. The control nucleus most often consists of a cooperative limited company (*société anonyme*: S.A.) comprising the associates (sometimes, it is a consortium [*groupement d'intérêt économique*: GIE] or non-profit organization governed by the French 1901 Act), but the coordination functions may be distributed across the company's subsidiaries. Nevertheless, we may consider that the network head enlarged to its subsidiaries qualifies as "network head". In that case, we refer to it as an enlarged network head.

#### 7.4.2.2 Broadening the concept of enterprise for the largest mixed-form entities (group and networks)

Groups of firms now have an extensive presence in the wholesale/retail trade, accounting for one-half of the sector's total employees and value added<sup>90</sup>. In practice, we have observed that the different organizational forms are intermingled. An analysis in which the database on groups was matched against the database on brand network heads in retailing effectively showed a complementarity between the "group" and "brand network" organizational forms. Most retail franchises and groupings are owned by merchandising groups, and one-half of the main merchandising groups control brand networks. Moreover, certain units such as Intermarché or Leclerc are structured as groups of firms only for their upstream activities (agrifoods) or support activities (such as transport); as a result, the group is not regarded as a merchandising group, if we disregard the associated brand networks; for these units, it would no doubt be fruitful to broaden the concept of enterprises to the "group + brand networks" complex, at least above a certain group or network size.

#### 7.4.3 Observable network characteristics

In light of the previous findings, a target system for statistical observation of networks could revolve around three types of specific surveys based on a statistical register of network heads. We are considering specially designed tools, for our past experience of the gradual introduction of questions in the annual enterprise survey<sup>91</sup> has showed its limits. Specific questionnaires are needed to document this type of structure.

##### A survey on the characteristics of main network forms

**A survey of network heads** is sufficient for collecting most of the characteristics a, b, c, d, e, f and h noted earlier. INSEE's 2006 "Retail Networks" survey is a prototype<sup>92</sup>. Such a survey could be carried out every 2-3 years.

The content should perhaps be reworked. In particular, network identification and typology are largely based on a table in which respondents are asked to classify points of sale in the following categories:

- . Wholly-owned points of sale (integrated and chain stores)
- . Points of sale under franchise contract
- . Points of sale under ordinary brand-license contract
- . Points of sale under commission-affiliation contract
- . Points of sale under concession contract
- . Points of sale under ordinary leasing contract
- . Points of sale belonging to a grouping (cooperative, consortium, etc.)
- . Points of sale affiliated with the network's central purchasing or product-listing organization but not displaying network brand.
- . Others (specify).

This identification by contract type should be revised (1) to focus on predominant network forms (franchise and cooperative grouping) and (2) to cover service sectors with a suitable terminology. Other questions make it possible to measure the level of dependence of the actors involved, in order to complement the contract-based identification with information on the degree of subordination and

<sup>90</sup> See *INSEE Première*, no. 1115 (January 2007).

<sup>91</sup> Enquête Annuelle d'Entreprise (EAE).

<sup>92</sup> See Annex 8 to French version of this report.

cooperation between network participants. However, these questions perhaps deserve fuller examination as well.

The performance comparison and the refined analysis of the heterogeneity of points of sale (need for information on characteristic g) would require an investigation of network members.

### **A survey on the boundaries of predominant network forms**

More largely, we could also observe the contour of stable networks by asking network heads to list the “independent” legal units that belong to the network. Given that there are at most 2,000 network heads in France, and that they have reached relative maturity, such an approach seems feasible. We would then have a more precise picture of network structure at a detailed level. By matching the data against files of individual financial statements, we could carry out performance analyses. A multi-year frequency might suffice, for example every 4-5 years, with the survey being compulsory. This should be adequate to monitor the major changes in the networks, most notably their detailed composition.

### **Should we manage a register of these networks?**

By logic, it would be advantageous to construct a network register and manage it on an annual basis. The register would describe network heads and their characteristics. The list of network heads could be updated annually in order to spread the burden over time through a regular watch procedure (in association with the federations representing the predominant network forms. This would enable us to launch network surveys without specific investment; the network characteristics and its contour would be updated in survey years only. The data should be incorporated into a statistical register that records similar links to those observed for financial connections in groups of firms. That is the framework in which we shall have to examine and process the cases of mixed group-network units.

### **A general survey on different network forms**

The observation of less stable forms of business-to-business relationships is more closely connected with ERIE-type surveys<sup>93</sup>, whose content probably needs revision. This type of survey, conducted every 5-6 years, would widen the spectrum of business-to-business relationships. It could notably draw inspiration from the surveys designed to characterize local production systems (or “clusters”), which seek to list production- or business-related collaborative ventures in a geographic area. This approach would tie in with a recurrent issue in regional economies: that of competitiveness clusters (pôles de compétitivité).

## **7.5 Conclusions**

Our conclusions are expressed here as recommendations, which deal more broadly with the inclusion of networks in statistics—beyond the specific problem of defining more relevant statistical units.

### **7.5.1 Introduce the “network” as statistical unit**

The analysis of different network forms has confirmed their importance in tertiary economic sectors. It is therefore appropriate to introduce a new statistical unit—the “network”—in parallel with the introduction of overall and intermediate statistical units, which track control relationships in groups of firms.

### **7.5.2 Define statistical units (overall and intermediate) enlarged to network components**

The inclusion of networks will lead to a revision of the notion of overall (or: intermediate) statistical unit. For most large units of the tertiary sector, where groups and networks coexist, one should define a broader notion as statistical unit for defining the boundaries of the significant economic actor consisting of the aggregation of OSUs (or: ISUs) + networks. This resembles “profiling” but should be confined to no more than a few tens of units (large organizations existing only as networks should receive the same treatment). What remains to be specified is the scope of coverage of this exercise and the variables of interest.

<sup>93</sup> Enquête sur les Relations Inter-Entreprises (Survey on Business-To-Business Relationships).

### **7.5.3 Observe predominant network forms (franchise and cooperative grouping) on a regular basis**

The analysis of different network forms has identified two predominant forms that stand apart from the others. We therefore propose an observation mechanism that pays closer attention to those two forms. One recommendation is therefore to take account of the frequent networking in tertiary sectors while confining our scope to the predominant network forms (franchise and cooperative grouping) for periodic observations based on a register of network heads. This implies managing a register of network heads for the predominant forms (approximately 2,000 units in the tertiary sector). The register would be initialized mainly through a survey of the trade press and contacts with trade associations and businesses. It would then be updated through regular statistical surveys: a compulsory “light-weight” survey on network characteristics every 2-3 years to update the register and monitor these entities’ market share; a fuller compulsory survey on the boundaries of these same networks every 4-5 years to conduct more detailed studies on network structures and the units’ comparative performance. This would involve turning the current experimental network-centred surveys into systematic, routine surveys—but focusing them on the predominant networks forms and, in addition, managing a register of these units.

### **7.5.4 Sometimes extend observations to the broader spectrum of business-to-business relationships**

To monitor the other networks, we recommend the launch of a broader survey on business-to-business relationships to detect and possibly track informal associated networks. We would thus cover all the other network forms, particularly subcontracting networks and strategic alliances. In so doing, we would check at period intervals that the monitoring of the two predominant forms identified as of now is sufficient for the regular observation of strongly networked organizations.

## **8 The information systems on which statistical observation can rely**

### **8.1 Brief reminder of basic information systems at the firm level**

The legal units called “firms”—whether natural persons or legal persons—are subject to various obligations (tax-related, legal, etc.) because of their activity or legal status. The category of information most closely controlled by government agencies pertains to legal units: it is highly reliable in regard to measurement errors due to the reporting entities.

#### **8.1.1 Well-identified legal units (SIRENE register)**

The first obligation for French “firms” is to register in SIRENE<sup>94</sup>, the national business register. INSEE, which administers SIRENE, operates at the heart of an inter-departmental system that mandates it to register all legal units on French territory, i.e., metropolitan France (mainland + Corsica) and overseas *départements* (DOMs). SIRENE records the vital statistics of enterprises: surname, given name, date and place of birth of the natural person when the legal unit is an unincorporated enterprise, or corporate name or designation for a legal person. Also recorded are the enterprise’s logo, its legal form, the address of its head office, the date of its establishment, and, where appropriate, of its termination. For local units, SIRENE records their addresses and the dates and origin of their establishment.

In addition to registration, two major operations for business statisticians are conducted in SIRENE and deserve mention: the assignment of a principal activity code (Activité Principale Exercée: APE) to each unit and the tracking of units’ vital events.

The goal of SIRENE is thus to allow an exhaustive census, without double counting, of the field of legal units referred to as “firms” via the use of the SIREN identification number, whose use is mandatory for all INSEE partners. The use of SIREN facilitates the matching of administrative sources and surveys.

#### **8.1.2 Separate financial statements, taxation of firms, VAT, taxation of external merchandise transactions, other legal obligations (employment, balance of payments)**

<sup>94</sup> Système National d’Identification des Entreprises et de leurs Établissements.

To meet administrative reporting requirements for taxes and other purposes, legal units must periodically tap information in information systems. These requirements are of different kinds:

Annual tax return filed with the Central Tax Office<sup>95</sup>: depending on their tax regime, “firms” submit their balance sheets, profit-and-loss statements, and annexes to these documents (for firms subject to the tax regime on “industrial and commercial earnings”), simplified statements (for firms subject to the tax regime on “non-commercial earnings”) or ultra-simplified statements.

In parallel, depending on their size, they file a monthly or quarterly return with their VAT payments (form CA3).

Employer firms are required to file an Annual Declaration of Payroll Data<sup>96</sup> as stipulated in Article R243-14 of the Social Security Code (Decree of 24 March 1972) and Articles 87.240 and 241 of Act 51-711 of 7 June 1951 in the General Tax Code. This document, which is common to the two government agencies (Social Security and Tax Office), allows the firm to communicate information on number of employees, total wages and salaries paid, and the name list of employees and the amounts of wages and salaries that they have received.

Importing and exporting firms are required to declare the value and type of goods imported or exported to the Directorate-General of Customs and Excise<sup>97</sup>. Depending on the country with which the transaction has taken place, the procedure is a declaration of goods (for trade with other European Union Member States) or a customs declaration (for trade with non-EU countries).

Firms importing or exporting services or capital provide information to the Bank of France, either directly for the largest firms, or via their banks.

Every year, therefore, a substantial set of information of use in economic analysis is compiled by firms to comply with reporting requirements.

### **8.1.3 Can we predict future changes in these systems?**

#### **8.1.3.1 Prospects raised by international standards**

Business accounting standards have evolved significantly in the past twenty years or so. Traditionally, accounting rules were legal rules and, as such, were determined at the national level. The adoption of a comparable Directive at the EU level in 1978 has not fundamentally altered this approach. The chosen approach largely allowed for the legal dimensions, notably the constraints arising from the possible linkage between accounting law and tax law. This relationship was not made mandatory, and EU countries that separated accounting from taxation could continue doing so. But the diagrams introduced by the Directive amply reflected (albeit implicitly) the consequences of a connection regime. The adoption of the Directive and of those spelling out some specific areas (consolidation, banks, insurance, etc.) did generate a major improvement in the quality of accounting information in the EU. However, its limitations became clear fairly rapidly. First, the compromise embodied in the text resulted in a relatively low level of harmonization. The reconciliation of sometimes contradictory interests had forced officials to accept options whose implementation conditions remained rather vague. Second, and most important, the implicit accounting model was somewhat bare and inspired by SME accounting. Now the emergence of large enterprise groups, the massive recourse to financial markets, the interconnection between these markets and the use of increasingly sophisticated financial techniques have created new needs in regard to standards that the existing Directives could not satisfy. Meanwhile, market and corporate globalization created a need for world standards to which the EU system could not respond.

The main users—foremost among which, financial-market regulators—therefore sought a consistent set of standards applicable to listed enterprises and accepted in all markets, irrespective of local rules, in order to obtain comparable financial information in all the markets concerned.

A private body, the IASC<sup>98</sup>, founded in 1973 by the main organizations of professional accountants assembled in a world federation, offered to draft these benchmark standards in the late 1980s.

<sup>95</sup> Direction Générale des Impôts: DGI.

<sup>96</sup> Déclaration Annuelle de Données Sociales (DADS).

<sup>97</sup> Direction Générale des Douanes and des Droits Indirects: DGDDI.

<sup>98</sup> International Accounting Standards Committee.

Previously, the IASC had already defined international standards. But as they had to be compatible national regulations in order to be applied in each country, they included many options (even more so than the EU Directives, for their theoretical scope of application was even vaster). At the request of the International Organization of Securities Commissions (OICV-IOSCO), the IASC launched a massive programme to improve its standards, which involved a drastic reduction in options, followed by a change of status and operating mode in order to increase its independence vis-à-vis the accounting profession. The programme went through major stages. At the institutional level, the IASC became the IASB<sup>99</sup> and the accounting standards became financial information standards. This evolution is a significant sign of the approach chosen, whose very explicit goal is to define standards to meet the needs of capital-market investors.

As of this writing, the process has not ended, although decisive stages have been completed, no doubt irreversibly. The most important of these stages was unquestionably the EU's 2002 decision to make these standards compulsory, at least for the preparation of consolidated financial statements of listed EU enterprises. The obligation became effective in 2005. However, the standards issued by the IASB (IAS/IFRS<sup>100</sup>) have not replaced American standards on U.S. territory. They will not be able to do so, and thus become truly international, unless U.S. authorities accept them. To this end, the U.S. authorities must recognize an equivalence between their own standards (US-GAAP) and IAS/IFRS standards. The IASB has therefore launched a convergence programme with the Federal Accounting Standards Board (FASB) whose outcome is crucial for the future of international standardization.

The adoption of these standards by the EU has had numerous consequences. First, the IASB being a private organization, it was not possible to vest it with direct standardization powers. The EU thus set up a European Committee on Accounting Regulation to examine IASB standards before adopting them (or not) as standards applicable in the EU. The second issue was the scope of application of these standards. The 2002 regulation makes them mandatory at least for the consolidated financial statements of listed companies, but Member States can extend their scope. Some countries, such as France, have not gone beyond the basic requirement: EU directives and their national adaptations are accordingly applied to other types of financial statements and enterprises. Other countries, such as Italy, have made the standards applicable to all enterprises and all types of financial statements. This has undermined comparability both inside and between Member States.

As these standards are designed to provide financial information on enterprises engaged in public offerings, they do not take into consideration other aspects that, at least in continental Europe, are regarded as falling within the accounting sphere (legal and tax issues). The question of whether the standards can be applied to all types of enterprises and all types of financial statements (consolidated and non-consolidated) is still hotly debated. Aware of the potential difficulties involved in a direct application of IASs/IFRSs to small businesses, the IASB has begun to develop a simplified version of the standards for the later, cognisant of the fact that the IASB tends to conflate the definition of small and medium-sized enterprises (SMEs) with the notion of unlisted enterprises. If the IASB's efforts produced a set of notably different benchmark standards for SMEs, then we would enter an unprecedented and rather unpredictable period in which two sets of accounting standards would operate side by side. They would necessarily differ on some key points, without a very clear perception of the reasons why some enterprises would be subject to one set rather than the other. If, instead, the planned adjustments prove to be limited and if these standards were to prevail for unlisted enterprises, we can expect major upheavals in the fields of taxation and company law. Some of the current provisions could not be maintained on the basis of the new standards. They would therefore need to be abandoned, or another foundation for them would need to be developed.

For the time being, the CNC's approach consists in seeking convergence between French and international standards. Major progress has been achieved, notably the introduction of new procedures regarding the definitions and recording rules for assets and liabilities in the General Chart of Accounts<sup>101</sup>. However, this convergence policy has already encountered obstacles, due to the legal and tax consequences (in some cases unwanted) that it would automatically generate if it were pursued to its ultimate conclusion.

<sup>99</sup> International Accounting Standards Board.

<sup>100</sup> International Accounting Standards/International Financial Reporting Standards.

<sup>101</sup> Plan Comptable Général: PCG.

The outcome of this process is hard to predict, for there is probably no painless solution. Whatever happens, it will be impossible to fully restore the previous situation, i.e., a single accounting model and a legal and tax security based on linkage.

### 8.1.3.2 The tax outlook

An important, even decisive factor in the debate outlined above will consist of the findings of the Common Consolidated Corporate Tax Base Working Group (CCCTB WG). One of the main goals of the project is to list the potential components of a common consolidated tax base. The harmonization work would be confined to the tax base; taxation rates would remain within the competence of Member States.

If the project leads swiftly to a system accepted by the Member States, even on an opt-in basis, these rules will likely become a major stake for all enterprises. Listed enterprises will be faced with a problem of dual standards (technically manageable) but the others will be inevitably attracted by the system: even it does not constitute an accounting benchmark in the strict sense, it is bound to have a decisive influence on the accounting standards applicable to unlisted enterprises, regardless of whether the latter follow international standards. From this standpoint, it is remarkable that the CCCTB WG is envisaging from the outset the definition of a consolidated tax base (for firms that are not integrated into a group, we assume that the base will be determined in a manner consistent with the methods defined for the consolidated base). This suggests that any advances in EU harmonization, beyond issues pertaining to listed groups, will incorporate the group dimension from the start, and ignore the non-consolidated statements of firms belonging to a group.

## 8.2 Information systems available at the groups-of-firms level

### 8.2.1 Census of groups of firms

As groups do not possess legal personality, they are not listed in the same way as legal units in a register that records their establishment and tracks their vital events. Nevertheless, information on group composition does exist and can be tapped for purposes of economic study, despite the fact that the information is of a partial nature, reflecting different definitions of groups different and therefore concerning different populations.

*“Although groups of firms do not possess legal personality, their existence is recognized in several ways, particularly in regard to taxation. Independently of certain jurisprudential or administrative constructs (subsidiaries and debt cancellation, head offices of multinational firms), groups are subject to two legal regimes: the tax-integration regime and the regime of parent companies and affiliates. [...] The tax-integration regime allows the parent company, called the “group head”, to declare itself as the sole entity liable to corporate income tax as well as to the IFA and the “distribution tax” (impôt de distribution), for the entire group that it forms with its subsidiaries. [...] The regime of parent companies and affiliates provides for the parent company’s exemption on dividends received by its affiliates [...] in order to prevent its subsidiary from being subject to dual taxation: first, corporate income tax at the subsidiary level, then, in the event of distribution, at the parent-company level.” Memento Lefèbvre Fiscal 2006.*

To be eligible for these tax regimes, groups must supply the tax authorities with specific information on their member firms. Under the regimes’ provisions, the parent company must provide the list of firms in the scope of consolidation and their annual profits and losses. To be included in the scope of consolidation, subsidiaries must be more than 95%-owned by the parent company.

Firms must also declare their financial ties to other firms: owner firms and firms held directly for all the firms in the group; direct and indirect links for the largest firms in the group.

The group can therefore be identified, thanks to this information, as a set composed of a “group head” and its affiliates, each of these legal units being recognized by its SIRENE registration number. However, these sources should be used with caution, as they refer to different scopes of group consolidation that exist side by side.

INSEE's approach consists in enumerating groups of firms through the LIFI system<sup>102</sup>, based on a survey supplemented by information from public and private data sources. The LIFI survey is a threshold survey, confined to firms that meet one of the following criteria:

- Firms with more than EUR1.2 million in controlling interests
- Firms with more than 500 employees
- Firms with more than EUR30 million in turnover (sales)
- Firms that were group heads in year n-1
- Firms directly controlled by a foreign firm in year n-1.

The LIFI database is compiled from LIFI survey results and enhanced with external sources to flesh out the scope of coverage:

- Diane, a private database published by Bureau Van Dijk: complements the survey scope of coverage with small groups (micro-groups with fewer than 500 employees).
- The DGTPE<sup>103</sup> survey on foreign affiliates of French groups and the Banque de France survey on direct outward investment provide supplementary information on French affiliates abroad (a listing, but also economic information on these units).

Thanks to the LIFI database, we can therefore use the pairs of links between legally defined firms to describe enterprise groups in their world dimension. Besides information on the nature of inter-firm ties, the LIFI database is enhanced with economic information from SUSE<sup>104</sup>.

	Number of groups	Number of subsidiaries	No. of group employees in France	No. of employees of French groups worldwide
All-French groups	25 436	86 662	2 130 982	2 130 982
International French groups	2 165	51 423	4 192 336	7 849 018
Foreign groups	7 676	21 763	2 021 682	
<b>Total</b>	<b>35 277</b>	<b>159 848</b>	<b>8 345 000</b>	<b>9 980 000</b>

Source : Lifi-Diane-Ficus 2004

#### Breakdown of resident groups by group size in France and number of affiliates in France

Number of group affiliates	0 à 4 employes	5 à 19	20 à 49	50 à 249	250 à 499	500 à 1999	2000 à 19999	20000 et +	Total
1 à 2	2 935	7 160	6 439	4 262	418	171	6	0	21 391
3 à 5	546	1 203	2 462	4 352	628	347	43	0	9 581
6 à 10	122	112	268	1 346	459	346	69	0	2 722
11 à 15	29	28	25	183	175	198	60	0	698
16 à 24	15	14	14	76	83	161	94	0	457
25 et +	7	4	5	28	24	125	185	50	428
<b>Total</b>	<b>3 654</b>	<b>8 521</b>	<b>9 213</b>	<b>10 247</b>	<b>1 787</b>	<b>1 348</b>	<b>457</b>	<b>50</b>	<b>35 277</b>

Source : Lifi-Diane-Ficus 2004

<sup>102</sup> Liaisons Financières: Financial Links.

<sup>103</sup> Direction Générale du Trésor et de la Politique Économique: Directorate-General of the Treasury and Economic Policy (French Ministry of the Economy and Finance)

<sup>104</sup> Système Unifié de Statistiques d'Entreprise: Unified System of Business Statistics (French National Accounts).

The different populations of groups enumerated by the tax authorities (DGI) or INSEE are not directly comparable. However, the following tables show the extent to which the population of the LIFI database overlaps the population of firms eligible for tax integration: 71% of the 145,000 firms enumerated as belonging to a group are more than 95%-owned.

**Breakdown of groups by percentage of firms more than 95%-owned, according to number of group subsidiaries**

% of no. of subsidiaries more than 95%-owned	Group size					Total
	< 250 employees	250-500	500-2,000	2,000-20,000	> 20,000	
A - 0 %-25 %	2812	60	41	8	3	2924
B - 25 %-50 %	2526	143	73	23	2	2767
C - 50 %-75 %	11303	486	297	116	15	12217
D - 75 %-100 %	1611	406	458	242	30	2747
E - 100 %	13387	692	479	68		14627
Total	31640	1787	1348	457	50	35277
Share of groups in which over 75% of subsidiaries are more than 95%-owned by group	47,4%	61,4%	69,5%	67,8%	60,0%	49,2%

Source : Lifi-Diane-Ficus 2004

Number of firms held by a group by percentage of control and group size

Percentage of ownership	Group size (number of employees)					Total
	>250 employees	250-500	500-2,000	2,000-20,000	> 20,000	
A - < 50% <sup>105</sup>	916	226	565	667	1088	3462
B - 50%-74.9%	21299	1813	2066	1625	3538	30341
C - 75%-89.9%	3003	568	674	483	444	5172
D - 90%-94.9%	1548	222	295	316	273	2654
E - 95-99.9%	19798	3416	4715	4753	4964	37646
F - 100 %	40912	5066	7224	7021	5823	66046
<b>Total</b>	<b>87476</b>	<b>11311</b>	<b>15539</b>	<b>14865</b>	<b>16130</b>	<b>145321</b>
Share of firms more than 95%-owned	69,4%	75,0%	76,8%	79,2%	66,9%	71,4%

Source : Lifi-Diane-Ficus 2004

## 8.2.2 Consolidated accounting reporting

Consolidation procedures are fairly complex. In theory, there is no difference between the standards applicable to non-consolidated and consolidated financial statements. The only rules specific to consolidated statements concern the determination of the scope of consolidation and the type de consolidation method to use depending on the degree of control (sole control, joint control, or "significant influence" [*influence notable*] in French terminology). In practice, the situation is slightly more complicated, especially in France, for the establishment of the system of consolidated reporting served as the opportunity to introduce new accounting rules that were not authorized (and some of which are still not authorized) for preparing non-consolidated statements. This divergence is due to the

<sup>105</sup> These are joint ventures only. The table does not include minority-owned firms.

choices offered in the accounting directive. Some of these options have been excluded in France for non-consolidated statements and left open for consolidated statements. The goal was to use all the means allowed by laws and regulations to promote convergence with international standards. Next, French regulations on consolidated reporting were adapted to bring them closer to international standards, although total identity has not yet been achieved. Today, the French benchmark standards for consolidated statements are significantly closer to international standards than the French guidelines for non-consolidated statements.

The first specific question concerns the definition of the scope of consolidation. The IASB's IAS 27 defines the main notions involved in the process. The standard rests on the definition of control as "the power to govern the financial and operating policies of an enterprise so as to obtain benefits from its activities". The scope of consolidation accordingly includes the controlling firm and the controlled entities. Thus ownership of an equity stake is not a prerequisite for control, and the scope is defined, in principle, only on economic grounds. However, application and interpretation procedures introduce exceptions or derogations, for often purely practical reasons. These cannot be listed here, but we shall simply note that the practical criteria for determining scope are being widely debated and may change significantly. It is easy to understand that this is a crucial issue, as the value of consolidated statements largely depends on their capacity to describe a complete and financially consistent set of entities.

The French approach is slightly different because it tends to confine the use of the term "consolidated financial statements" to the sets of entities formed through shareholdings. Ownership of at least one share—even if control is obtained by other means—is needed to consolidate the entity that holds the security and the entity that issued it. For control configurations that do not rely on any equity link, the French use the term of "combined financial statements" (*comptes combinés*). In reality this separation is primarily technical in nature and not absolute. The scope-determination criteria are fairly similar, but in this area in particular, the devil is in the details.

The use of consolidated statements for statistics poses two main problems. First, the presentation of consolidated statements was designed to align itself on international standards from the outset<sup>106</sup>. Although the latter allow the possibility of presenting the profit and loss account by expense type, this option is generally passed over in favour of a presentation by function. More generally, the international standards are relatively nonprescriptive as regards the precision of the classification of items in the financial statements. These two characteristics make the use of consolidated statements difficult for statisticians, who do not necessarily find in them the aggregates regarded as essential (personnel expenses, purchases, etc.) and who may sometimes hesitate over the exact content of certain headings such as interest expenses.

The second problem arises from the fact that the consolidated statements apply to the group defined by the scope of consolidation and that this group may consist of firms operating on national territory as well as firms engaging in their activity abroad. The information provided by these statements thus do not relate to a national territory, and they concern all of the group's activities.

From our meetings with key witnesses occupying accounting functions in large international groups, it emerged that the supplementary information needed to compile certain statistics is obtainable, provided that this is explicitly planned for in advance. Such information generally exists in the group's information system but is not necessarily centralized. We therefore need to set up a specific system to collect it, which presupposes a prior agreement on the system's reach and duration. Lastly, it is clear that if the detailed information on the nature of expenses and the breakdown by activity or territory can be obtained rather easily subject to the reservations described earlier, the cross-tabulation of this information may prove genuinely difficult for certain groups.

### 8.2.3 Legal announcements

The obligation to publish consolidated financial statements is a direct consequence of their preparation. The reporting is mandated by Article L233-16 of the French Business Code (Code de Commerce): "Commercial firms shall prepare and publish each year, at the behest of the board of

<sup>106</sup> However, in a report published in 1968, CNIS had prepared a plan for consolidation methodology based on the General Chart of Accounts (Plan Général Comptable) approach. The project was not followed up.

directors, supervisory board, or managers, as the case may be, consolidated financial statements as well as a report on group management, if they exercise sole or joint control over one or more other enterprises or exercise significant influence on them, under the conditions defined below.”

Publication requirements and formalities are broadly the same as for publication of non-consolidated statements.

#### **8.2.4 Corporate communication by listed groups**

Public offerings entail special information requirements. First, a firm that engages in a public offering must prepare and publish consolidated financial statements if it controls other firms, even if it is itself controlled by another firm that already publishes consolidated financial statements and includes the firm in its scope of consolidation. On the other hand, such a situation frees an unlisted firm from the obligation of preparing consolidated financial statements.

Generally speaking, information requirements go well beyond the publication of annual statements (non-consolidated and/or consolidated).

At the EU level, the “Prospectuses” and “Transparency” Directives contain many requirements regarding public disclosure. For instance, as regards period information, the transposition of the “Transparency” Directive into the French monetary and financial code requires the publication of the annual financial report together with a statement by the persons assuming responsibility for the report in the four months after the close of the financial year. In the two months following the closure of the first half of the financial year, groups must publish a condensed half-year financial report; within 45 days of the end of the first and third quarters, they must release quarterly information, including the net total quarterly turnover by activity segment, a description of the financial position and of group results, and an explanation of major transactions and events that occurred in the period considered. These reports must be disseminated electronically, and a hard copy deposited with the AMF. They must be stored on the firms’ websites for five years.

#### **8.2.5 Voluntary communication by groups: websites**

As we have just seen, financial communication by listed groups, including in electronic form, is closely regulated. Documents are available via links from the AMF site, and the possibility of direct storage on the AMF site is being studied. This point is very important, for it would be certain to promote homogenized presentations, probably through the implementation of financial information transmission standards. This would help to improve direct comparability.

For unlisted groups, there is no requirement that differs from the obligation to publish financial statements. These groups’ policies are very diversified depending on whether they want to be compared with equivalent listed groups or, on the contrary, release no more than the legal minimum of information.

### **8.3 Information available on networks**

If we confine ourselves to the main network forms (franchise and cooperative grouping), networks typically display themselves around a common corporate name, which allows observers to identify them and potentially to plot their boundaries. In practice, network heads possess detailed information on network members, part of which must be made available to future members (see the 1989 Doubin Act, which requires franchisers to provide a list of network members with their addresses). Reports by network boards of directors often disclose the size of networks under management, at least in terms of number of units and turnover. These data are therefore available from network heads but have to be collected through a special survey.

Networks are not subject to any specific financial-reporting obligations except in the context of so-called “combined financial statements”, which remain relatively uncommon in France.

“Combined financial statements” extend the notion of consolidated financial statements to units linked to one another by ties other than controlling interests, i.e., other than financial.

Article 12 of the Seventh EU Directive on consolidated financial statements contains a optional provision allowing a Member State to require “any undertaking [i.e., enterprise] governed by its national law” to “draw up consolidated accounts and a consolidated annual report” if:

*“(a) that undertaking and one or more other undertakings with which it is not connected, as described in Article 1 (1) or (2), are managed on a unified basis pursuant to a contract concluded with that undertaking or provisions in the memorandum or articles of association of those undertakings; or  
(b) the administrative, management or supervisory bodies of that undertaking and of one or more other undertakings with which it is not connected [...] consist for the major part of the same persons in office during the financial year and until the consolidated accounts are drawn up.”*

The French National Accounting Council (CNC) spelled out this option in Opinion no. 94-02 on the methodology of combined financial statements. The document states that:

*“Enterprises that form a whole, but whose cohesion is not the result of shareholding ties, can prepare combined accounts in order to present the accounts of this whole as if it comprised a single entity. The use of the terms “combined accounts” is subject to the application of the rules set out below.*

*Combined accounts can be prepared, in particular, in the following different situations:*

- *enterprises managed by the same person or the same group of persons with common interests;*
- *enterprises owned by the same natural person or members of the same family;*
- *enterprises of the cooperative and mutual sectors in which the regional organizations, not necessarily linked through legal ties, control the central federating organization and, on account of privileged agreements, form a homogeneous whole with that organization, with a common strategy and management;*
- *enterprises belonging to the same group, not legally linked to the holding company or sub-holding company, but engaging in the same activity and operating under the same authority;*
- *enterprises linked with one another by a profit-sharing agreement that is sufficiently constraining and exhaustive for their combined accounts to be more representative than the separate accounts of each entity.*

*The annex to the combined accounts shall describe the nature of the links that originated their preparation. It shall provide a list of the enterprises bound by these links and whose accounts are combined.*

*The combined accounts shall result from the amalgamation of the financial statements of the different enterprises included in the scope. Reciprocal accounts [involving] assets and liabilities, expenses and income, shall be eliminated. The results of transactions between the combined enterprises shall be netted out to zero.*

*The assessment methods applied by the enterprises whose accounts are combined shall be harmonized. The accounting impact of items recorded for the sole purpose of implementing tax legislation shall be eliminated. Deferred tax shall be booked. Lastly, it is possible to use assessment methods that do not comply with the Business Code, listed in Article 248-8 of the Decree of 23 March 1967 on commercial firms.*

*The combined accounts shall include at least the combined balance sheet, the combined profit and loss account, and the annex to the combined financial statements. They may also include a financing table or a cashflow table, and a table of changes in combined stockholders’ equity. The format of the summary financial statements and the content of the annex are, subject to necessary adjustments, those prescribed for consolidated financial statements in the general chart of accounts (plan comptable général).*

*The annex to the consolidated accounts shall provide details on the nature of the stakeholders in the combined equity and on any minority interests.”*

The CNC believes that, strictly speaking, the above constitute a special category of accounts that do not qualify as “consolidated financial statements” but are designated as “combined accounts”, even though the method for restating internal flows is comparable. We should note that combined accounts may include all the enterprises that fulfil the requirements, irrespective of their activity, location, and legal form. For example, if a set of enterprises under common management comprises only commercial enterprises but also a non-profit organization, the latter’s accounts are combined with those of the commercial enterprises.

The CNC's Opinion no. 00-18 specifies the implementation of combined accounts for enterprises governed by the Insurance Code, mutual organizations governed by the Mutual Societies Code, and provident insurance institutions governed by the Social Security Code. The document defines the notion of "scope of combination" and "combining enterprise".

A French government order of 5 October 2006 on agricultural cooperatives introduced the requirement to produce combined accounts for any combination, defined as "a link of unity and cohesion that may result from an agreement, common management, or service-sharing".

Until now, this accounting procedure had been largely optional. The Bank of France's central repository of consolidated accounts, which includes some 4,000 consolidated financial statements, had only about twenty "combined financial statements" in 2006. These represented 0.5% of the database's total assets and 0.8% of its long-term debt. This handful of cases consists of families owning several firms (without the intermediary of a holding company), or cooperatives and cooperative unions that have subsidiaries. The units concerned have to choose to prepare combined accounts and communicate them to the Bank of France, which explains the modest number of current filings. It is hard to predict the extension of combined accounts to cooperative groupings, but these reference documents confirm the desirability of monitoring certain networks in a more comprehensive manner.

#### **8.4 Supplementary information for tracking the new statistical units**

The information available in groups of firms for the needs of account consolidation provides not only an adequate conceptual framework but also the essential data that statisticians would require for observing the overall or intermediate statistical units. Some supplements or adjustments are, however, necessary.

##### **8.4.1 OSUs and the identification of groups of firms**

Statisticians will need some additional information for their own purposes:

- first, the exact scope of consolidation must be determined to avoid omissions and double counting with other resident firms.
- second, some information items may be needed to "harmonize" certain accounting concepts that involve too many options for statisticians; this harmonization will allow the definition of statistical concepts that can be used in the analysis of groups at the global (i.e., world) level, such as value added, net income, compensation of employees, investment, and fixed assets.

More important, statisticians will need to obtain the accounts of the truncated OSU. On this territorial basis, and from the information on the resident scope and non-consolidated accounts, statisticians will need to check for a minimum consistency in certain aggregates such as compensation of employees, value added, gross operating surplus, investment, number of employees, and income. We can take it for granted that enterprise groups have the required information in their internal databases, for their own consolidation purposes. We shall need to determine the procedures for arriving at statistical burden that will be acceptable for these groups. Pre-consolidation will suffice; other restatements, notably for the estimation of goodwill and "deferred" tax, are of rather limited interest for statisticians.

This operation could also be linked to the determination of flows of intra-group cross-border trade in goods and services, without breakdown by product. This determination is needed to apply the concept of sales in the resident market<sup>107</sup>.

Another case to be explored is that of foreign-controlled groups, which are not required to sub-consolidate their resident subsidiaries. Although the procedure is similar in formal terms, these groups may perceive the requests of the French official statistical system differently, as consolidation is traditionally performed by the group head, which, in this case, will be non-resident.

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<sup>107</sup> The accounting regulation stipulates that consolidation does not have to be performed on the French scope if a wider consolidation or scope exists

### 8.4.2 ISUs and the identification of operating divisions

The operating divisions that the statistician will use as a basis for defining intermediate statistical units reflect an organizational reality of the management of groups of firms. They also represent a sociological reality on which groups base their external communications, particularly through their websites. These entities are also recognised by the IAS/IFRS international standards, which have devoted a specific standard to them: IAS 14.

#### 8.4.2.1 IAS 14 standard for listed groups<sup>108</sup>

IAS 14 defines the entities to which the standard applies and sets accounting requirements. It takes the same approach to “business segments” and “geographical segment”. In fact, it amalgamates them into a single concept: the “segment” (English being the IASB working language). To avoid a needless profusion of technical terms here, we shall refer to it as “operating division”<sup>109</sup>.

An *operating division* is the “component of an enterprise that (a) provides a single product or service or a group of related products and services and (b) that is subject to risks and returns that are different from those of other business segments.”

Among the different operating divisions, IAS 14 identifies the “reportable segments”.

IAS 14 also defines practical guidelines for identifying *operating divisions*:

“An enterprise must look to its organisational structure and internal reporting system to identify reportable segments. In particular, IAS 14 presumes that segmentation in internal financial reports prepared for the board of directors and chief executive officer should normally determine segments for external financial reporting purposes. Only if internal segments aren’t along either product/service or geographical lines is further disaggregation appropriate. This is a ‘management approach’ to segment definition.”<sup>110</sup>

The enterprise’s reportable segments are its operating divisions (determined as outlined above) that account for at least 10% of total revenue of the group of companies. “Vertically integrated (those that earn a majority of their revenue from intersegment transactions) may be, but need not be, reportable segments.”<sup>111</sup>

The accounting items for these operating divisions that require disclosure are the following, in the case where the primary breakdown is by business segment (and thus secondarily by geographic segment):

- Sales revenue (distinguishing between external and intersegment)
- Result
- Assets
- The basis of intersegment pricing
- Liabilities
- Capital additions
- Depreciation
- Non-cash expenses other than depreciation
- Equity-method income.

When the “business segment” breakdown is secondary, the only items to be disclosed are sales, assets, and capital additions.

“Where there has been a change in the identification of segments, prior year information should be restated.”

<sup>108</sup> For more information, see <http://www.iasplus.com/index.htm>. This standard is due to be replaced by IFRS 8.

<sup>109</sup> The term chosen for the French translation is *secteur d’activité*.

<sup>110</sup> <http://www.iasplus.com/standard/ias14.htm>.

<sup>111</sup> *ibid.*

#### 8.4.2.2 Requirements arising from Regulation CRC 99-02 (amended) (unlisted groups)<sup>112</sup>

Article 425 entitled “Other information” spells out these requirements:

**Sectoral information:** [...]

- breakdown of sales and fixed assets or assets employed by geographic or monetary area and business segment.
- breakdown of operating result by geographic area and/or business segment according to group's choice of organization method.

For the purpose of this sectoral information, a business segment or geographic segment is defined as a homogeneous set of products, services, businesses or countries that is individualized in the enterprise, its subsidiaries, or operating divisions.

The segmentation adopted for sectoral analysis should be consistent with that used in the enterprise's internal organization.

Business segments or geographic segments accounting for less than 10% of the consolidated total may be combined.

As we can see, these requirements are milder than those set out in the IASs.

#### 8.4.2.3 Statisticians' additional needs

Just as with truncated OSUs, statisticians should do their best to ensure consistency between this information and the non-consolidated accounts of the firms that constitute the scope of these truncated ISUs (in the frequent case where an adequate correspondence exists between the segmentation into operating divisions and the legal segmentation into firms). Some conceptual restatements at this level, similar to those performed at OSU level, may be necessary.

We also realize that statisticians will need a full working account (operating account), and even a profit and loss account if financial information is deemed relevant for the ISUs as well. Likewise, statisticians may require fuller balance-sheet details than those mandated by the standards.

#### 8.4.3 Some comments on sub-consolidation

Our investigations show that groups required to consolidate have, in their information systems, most of the basic information needed to prepare a pre-consolidation on a scope different from that of full consolidation: for the needs of full consolidation, their databases contain matrices of flows and outstandings between the firms to be consolidated for the various consolidation items. Cancelling intra-group flows on a given scope is therefore largely a matter of setting different parameters. It is the definition of this different parametering (such as, for example, truncation on national territory) that may represent an investment whose size will vary according to the design of the consolidation IT system.

However, we may encounter some intrinsic limits, for example when consolidation breaks down transactions only by function, not by type, or when the accounting items of subsidiaries used for consolidation are already stated in accordance with concepts compatible with the IAS but not with the French Chart of Accounts (PCG). For variables of the “additive in consolidation” kind, the simplest solution may be to start all over directly from the non-consolidated accounts.

We should also note that a restatement of transactions for the purpose of full sub-consolidation (i.e., computing goodwill, deferred taxes, and so on) would, no doubt, disproportionately costly relative to the potential impact of the restatement on the statistics concerned. The Working Group has therefore considered the possibility of requiring less-than-full sub-consolidation.

#### 8.4.4 Non-accounting characteristics

Generally speaking, it is an open question whether the characteristics to be tracked by statisticians would be available at OSU or ISU level. This level is not relevant to administrative requirements, which are typically confined to legal person and so to the legal unit. Nevertheless, it is an information-rich level for it corresponds, by construction, to the management level in groups of firms. At this echelon,

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<sup>112</sup> These requirements therefore concern unlisted groups that need to consolidate because of the thresholds set in Article L233-16 of the Business Code (Code de Commerce).

there is a wealth of information needed for decision-making and dictated by management-control requirements.

While the dividing line between information available at group level and information available at segment (operating-division) level can vary from one group to another, it is well known inside the group and does not raise insurmountable problems for statistical collection. The experience of the INSEE survey on intangible assets has showed that one can define levels of competency in groups according to the survey topic. Our key witnesses noted that the observation of characteristics at this level offers two advantages:

- As the level is used by the group itself, the information is verified and validated, hence more reliable
- By contrast, information on the legal unit at sub-operating-division level may even prove to be purely formal and totally irrelevant.

Generally speaking, the profiling experience has so far shown that enterprises are all the more cooperative as they understand the relevance of the information requested of them.

#### **8.4.5 Managing statistical confidentiality**

##### **8.4.5.1 Reminder of statistical-confidentiality principle**

The principle of statistical confidentiality aims to prevent disclosure to at least one third party of individual information (i.e., concerning a particular enterprise) when a statistical aggregate is published.

Two rules have been established. They must be observed simultaneously for an aggregate to be published without risking disclosure of individual information:

the aggregate must comprise at least three enterprises

no enterprise must account for more than 85% of the aggregate (this is called the dominance criterion)

Without further investigation, an aggregate that does not meet both criteria cannot be disseminated.

To publish such a “cell” (aggregate) regardless, one of two conditions is sufficient: the consent of the enterprise(s) concerned, or previous publication of the information elsewhere. In particular, this is a rather common occurrence for non-consolidated accounts, as they are published by the commercial-court registrars. Obviously, this provision applies only if the figures reproduced in the statistical publication are indeed those published by the court registry and not the enterprise’s actual response to the survey (in the unlikely event that the two sets of figures are not identical).

##### **8.4.5.2 Applying the confidentiality principle to new enterprise units**

The principles of statistical confidentiality recalled above apply in practice to enterprises defined as legally defined firms (legal units). To comply with the spirit of the statistical-confidentiality principle, the Working Group proposes, in the event of a redefinition of enterprise units, that the principle should be applied to the new units regardless of their actual legal status.

It is easily conceivable that if, in the future, the statistical system no longer regarded the enterprise as consistently equivalent to the legal unit but in certain cases defined it as a consolidation of firms into groups or subgroups, the dispersion between small units and large units would widen, and units (enterprises) would more often cross the dominance threshold (85% of the aggregate).

##### **8.4.5.3 Mild increase expected in the number of confidential cells**

Annex 4 of the French version of this report contains a simulation on the probable impact of aggregation into groups on the frequency of potentially confidential aggregates. Assuming the greater likelihood that the subgroup or operating segment would constitute the “enterprise” level in a group, the simulations provide an upper bound for the number of aggregates (cells) that are not confidential today but would become so tomorrow.

It is important to stress that this maximum number of aggregates that would become confidential through an automatic application of current statistical-confidentiality rules to new enterprise units is very reasonable: twelve NAF 700 classes and three NES 14 sectors.

Nevertheless, some formal initiatives could be taken to reduce the number even further.

#### **8.4.5.4 Paths to explore**

The examination of these paths will initially require assistance from the INSEE unit in charge of enforcing the confidentiality rules:

- for characteristics least affected by consolidation: employment, wages and salaries, value added, and investment:

We may regard the consolidated figure for these characteristics as a pure addition of “firm” data, published and aggregated for scopes of groups that are themselves published by court registrars or by group committees for groups of a certain size. Consequently, such a procedure should not lead to any indirect disclosure of information.

- for non-additive characteristics

This will mainly consist of information supplied by certain groups—the most significant—under the profiling procedures that the system of business statistics will need to perform if the new statistical units are adopted; these procedures are aimed at defining enterprises as accurately as possible within the profiled groups.

The application of confidentiality principles should be examined with group executives in the context of such procedures. Specific agreements could then be reached, as is already the case today with very large legally defined firms.

In other words, this would be a return to the core principle of confidentiality: the objective is to avoid harm to the responding economic entity. In this respect, the disclosure of certain non-sensitive information cannot be regarded as an infringement of French legal requirements (Statistics Act no. 51-711 of 7 June 1951).

The Working Group proposes that studies on confidentiality management should be conducted once the decision to introduce these new statistical units is taken. The studies would be presented to the Confidentiality Committee for direct approval or a recommendation to set up a specialised Working Group on the subject.

#### **8.4.6 The need to anchor the system to non-consolidated accounts**

To preserve the system’s overall consistency as well as comparability at the individual level, the sub-consolidated information on the truncated French scope shall be matched against the non-consolidated accounts and equivalent information of an administrative nature (for example, employment figures). This is to make sure that the options offered by consolidation standards—most notably IASs—do not undermine the total consistency.

### **8.5 A statistical system proportionate to the actors’ size**

The groups of firms operating on French territory form a highly diverse population.

Out of a total of about 35,000, almost 32,000 have fewer than 250 employees (in France); of these, 21,000 have no more than two subsidiaries in France. Only 1,855 groups have more than 500 employees in France, of which 507 more than 2,000 (see §8.2.1).

Of the small groups (fewer than 500 employees), nearly 25,000 are all-French, i.e., with no foreign subsidiaries. Of these, some 19,000 have no more than two subsidiaries in addition to their group head (in other words, they comprise no more than three firms).

Outside of the fact that their legal structure is that of a group of firms, these small groups are indistinguishable from enterprises of the same size (fewer than 500 employees) organized as single firms. Often, the group structure in such cases is due to the breakup of one firm into several firms—for

reasons related to employment, taxes, family ownership, etc—and not to a grouping of several firms under a single controlling entity. Their approach to operations and business development is not that of a group. In particular, such enterprises seldom expand through acquisitions. Moreover, there are few or no intra-group flows (between firms) in the production process. Rather, this configuration may be described as separate management, by distinct firms, of employees and/or fixed assets and/or production, with the accompanying book-keeping entries.

For this category of groups, therefore, observing the group itself rather than its subsidiaries has a minimal impact on aggregate statistics: first, because we are dealing with small economic entities; second, because the modest volume of intra-group flows means that the consolidation at group level will barely differ from the simple addition of each subsidiaries' individual figures<sup>113</sup>. The main challenge involved in a change in the statistical observation of these units will be to display a single economic actor where the observation of legal units (firms-subsidiaries) currently displays two or three, sometimes in several economic sectors. Moreover, an observation of legal units (firms) would lead, in some cases, to incorrectly counting as “enterprises” entities engaged in lending personnel—entities that are merely a legal arrangement within a single enterprise.

It thus seems reasonable to view these small groups as each defining a single entity—irrespective of their status as OSUs and ISUs (or: TrOSUs and TrISUs)—whose statistical treatment (of the entire entity) would remain very similar, in its basic principle, to the current treatment (see §8.5.3).

Obviously we cannot use the same approach for large groups. First, they have a substantial impact on statistics; second, as they are fully-fledged group structures, they may generate heavy intra-group flows, with all the double counting that may ensure; third, they may be engaged in such different economic sectors at once that the observation of each of these groups as a single entity could heavily disrupt some sectoral statistics<sup>114</sup>.

As discussed in §6, these large groups should be observed and taken into account through their operating divisions, which would constitute the intermediate statistical units (ISUs and corresponding TrISUs).

This process of defining ISUs in “large” groups is referred to in business statistics as *profiling*<sup>115</sup>.

### 8.5.1 Profiling large groups

Profiling a group of firms consists in defining the most appropriate entity for the statistical observation of the group. In the present case, this means defining the intermediate statistical units (ISUs) (see §6.3). As mentioned in §6.3.1, the main reason for the need to distinguish ISUs that differ from the overall statistical unit (OSU) is not the group's size but rather its diversification.

The goal of profiling being to define the (statistical) observation entity for the group, the task can only be carried out in close cooperation with the group itself (see the general principles of profiling set out in § 6.3.2.1).

As a rule, the observation entity defined will reflect the group's main businesses, which will accordingly define a corresponding number of statistical units. These will therefore aggregate several firms in the

<sup>113</sup> This leaves the issue of the elimination of accounting entries generated, for example, by an arrangement where a firm belonging to this small group manages the entire workforce and “lends” it to the firm actually engaged in production.

<sup>114</sup> One example that comes to mind is a major French construction group also engaged in television media and telecommunications. To book the total activity of this group (which, in fact, is more aptly described as a conglomerate: see § 3.3) under a single sector would make the sector's indicators lose their relevance, since the group's secondary activities would be recorded in the sector as well; conversely, in the sectors corresponding to the group's secondary activities, its non-presence (in the statistics) could prove to be rather problematic. We should note, however, that the problem is identical for large single-firm enterprises engaged in several economic sectors at once. Given that not all large enterprises are organized into groups of firms, we are not dealing here with a purely academic question.

<sup>115</sup> Historically, Statistics Canada appears to have “coined” the term *profiling* in business statistics. Today, the most intensive users of the technique are British and Dutch statisticians (CBS and ONS).

group. The few tests already performed in France indicate that such units may comprise anywhere between a dozen and several hundred firms.

Profiling thus involves a group's entire activity, in some cases at the global level. The need to restrict observation to the truncated organizational entity for many statistics is merely a refinement of the profiling procedure, as the ISUs have already been defined (see § 8.5.4).

### 8.5.2 Observation and monitoring of enterprises defined by profiling

The observation of ISUs (or, more often, of TrISUs) redefined by profiling will not differ, in principle, from that of the other ISUs (or TrISUs), i.e., those consisting of a single firm: one or more correspondents will have been identified and received the questionnaire for the survey concerned. Already under observation are three "enterprise" units (ISUs) defined by profiling in the PSA, Renault, and Accor groups. As a rule, these redefined units receive the same questionnaires as the others<sup>116</sup>.

For data from other administrative sources, various situations may arise, depending on whether the data are directly additive (no consolidation effect) or not.

If, because of its very definition, the variable is not subject to a consolidation effect, then the statistical office can sum the administrative data itself. This only requires a statistical register (see §10.5) to define the correspondence between the statistical unit (ISU and TrISU) and the administrative units (legal units), so that the administrative data can be simply aggregated<sup>117</sup>.

If the variable, by definition, is subject to a consolidation effect (for example, sales, purchases, and output), we need to implement another strategy.

We can reasonably envisage two strategies, one of which is already being used for the three enterprises redefined by profiling (TrISUs). The choice depends on the size of the unit in question and the volume of its intra-unit flows, i.e., those that will be eliminated through consolidation.

If the unit (TrISU) is large (in its sector) and if its intra-unit flows are substantial, the most reliable strategy is to ask the enterprise directly to perform consolidation itself, for the variable(s) considered<sup>118</sup>. Whereas the others units would have nothing to communicate because the statistical office would obtain data directly from an administrative source, this unit would have to fill out a statistical questionnaire.

If the unit (TrISU) is medium-sized (in its sector) or if its intra-unit flows are small, the most appropriate strategy is, no doubt, for the statistical office to perform the consolidation itself using administrative data for the firms that define the TrISU. Such a consolidation would be guided by the information gathered at regular intervals from the enterprise concerning the share of purchases and sales realized within the enterprise by the firms that compose it<sup>119</sup>. True, an "in-house" consolidation based on "old" information (consolidation keys) is a less precise approach than asking the unit to perform the consolidation itself. But the loss of precision is likely to be largely offset by the gain in relevance due to the fact that the "right" economic actor is taken into account.

It will be essential for the two parties (the respondent unit and the statistical office) to agree clearly on the "definition" in legal units of the TrISU. As already mentioned, it will be the role of the statistical register to record these "scopes".

<sup>116</sup> Notable examples include the questionnaires of the annual survey enterprise (EAE), innovation surveys (CIS), and information-technology surveys (TIC); the same procedure should apply to all questionnaires addressed to the enterprise.

<sup>117</sup> Even if the ISU comprises only a part of a legal unit, this simple aggregation can be performed on condition that the statistical register indicates the prorated share of the legal unit to be taken into account.

<sup>118</sup> Two remarks: (1) the size of intra-unit flows is known during the profiling work; (2) the additional response burden for the enterprise that is asked to perform the consolidation is certainly offset by the fact that it will be required to send only one completed questionnaire to the statistical office, whereas previously it may have had to complete as many as a few hundred.

<sup>119</sup> The frequency of the collection of this information on the size of internal flows remains to be determined (3 years?). Such a collection should be greatly simplified by the fact that in many cases the intra-unit share is either 0 or 1.

But once these scopes are recorded, they will need to be updated—either after a legal restructuring of one of the legal units defining the ISU in question, or after a reorganization in the group (including in the wake of mergers-acquisitions).

### 8.5.3 Statistical treatment of “small” groups

“Small” groups are taken to mean as defining a single unit (whether OSU or ISU).

For data collected by other government agencies, the Working Group proposes a simple aggregation of data on the firms that compose these “small” groups (an unsophisticated consolidation). The treatment of these groups therefore consists in seeing a single actor, classified in a single sector, where today the statistical system counts two or three actors in two or three sectors. These small groups (or, more surely, pseudo-groups) will each be assigned to an economic sector, on the basis of the principal activity that will be determined for each.

As for the other variables, i.e., those collected by means of a statistical questionnaire, the most appropriate solution may be to gather the information only for the group, hence by means of a single questionnaire<sup>120</sup>.

### 8.5.4 Necessary restriction to national territory only

We may therefore envisage three complementary strategies for covering enterprise groups in business statistics: (1) by group size; (2) for large groups, by size of enterprises redefined within their (relative to their economic sector); (3) by volume of internal flows in these enterprises (magnitude of consolidation effect). Only large groups would be profiled, a process that may lead to the group (OSU) being regarded as constituting *de facto* a single intermediate statistical unit (ISU).

If the group is multinational, i.e., with subsidiaries abroad, then, for most statistics, the entity that must be taken into account indeed comprises only the redefined enterprises truncated on French territory (TrOSUs and TrISUs).

If the sub-consolidation of data that are not directly additive is performed by the statistical office from administrative data on firms composing the redefined enterprise, the truncation (TrISU scope) will be obtained immediately (by construction).

If, instead, the consolidation is performed by the enterprise itself, and if we ask the enterprise to consider only the territorial truncation (TrISU) when responding to most requests from the statistical system, this could represent an additional response burden, as the enterprise’s information system is not necessarily suited to the task. In fact, that is what has led most of the accounting officers consulted by the Working Group (whether corporate accountants or members of accounting firms) to prefer consolidation only from the non-consolidated accounts of the French firms defining the new statistical units (see §8.4.3).

## 9 First conclusion of Part II: coverage of groups at two levels of analysis

For certain economic analyses, the observation of economic actors at the level of their ultimate decision-making centre seems essential, for it is at this level alone that the strategy in question is defined and implemented. Meanwhile, other analyses do not need to examine that decision-making level, or even have every reason to focus on a more operational level. Hence the need to define two levels of analysis.

### 9.1 A two-level analysis is needed

Depending on the subjects analyzed or the variables of interest, the appropriate statistical unit may therefore be either the intermediate statistical unit (ISU or TrISU), or the overall statistical unit (OSU or

<sup>120</sup> This is the strategy used for all small groups by the survey on methods and means of management of intangible assets (2004). It was found to be effective.

TrOSU). The statistical process will thus have to go beyond the biunivocal correspondence between legal personality and enterprise for firms belonging to a group.

In practice, the possible choice between the two types of unit defines two levels of analysis:

- A level close to the economic activity situated in the “real” sphere. This is the level corresponding to what economists practising organization theory call divisions in the case of multifunctional units. This is even more true for the different fields of activity of conglomerates, owing to their heterogeneity. This level would correspond to the intermediate statistical unit.
- An overall level, which includes activity classified in the financial sphere, addresses profitability, the financing of enterprises’ development, and their survival. This level would be that of the overall statistical unit.

Coverage could be restricted for simplicity’s sake: for groups of firms, we could confine observation to the part of the group corresponding to the actors controlled exclusively or jointly within the scope of consolidation<sup>121</sup>. Indeed, the economic vision of the enterprise in the case of minority interests is rather tricky (for some economists like Williamson, it corresponds more closely to transitional situations; more recent studies argue that it should be analyzed in terms of managing risks such as alliances).

Most current sectoral statistics should therefore be prepared on the basis of intermediate statistical units, truncated when the aim is to describe resident economic activity.

## 9.2 Some networks should be included

Beyond the introduction of the “network” statistical unit, whose observation would allow a description of the activity, weight, etc., of the networks themselves, the very definition (construction) of the intermediate statistical unit (ISU) or overall statistical unit (OSU) should take account of certain network structures, which can be equated, in many respects, with groups.

## 9.3 Possibilities for observing groups

Operating divisions—which are suitable for defining intermediate statistical units (ISUs) when the group as a whole (overall statistical unit: OSU) seems too diversified, are a powerful organizational and managerial reality in enterprise groups.

The IAS 14 standard, for listed groups, sets obligations and defines standards in the accounting sphere that actually apply to such operating divisions; these obligations, just like the needs arising from consolidation in groups, provide an incentive for groups to set up information systems that will keep a detailed record of the various internal flows.

These information systems form the base from which the official statistical system should be able to obtain the information needed to prepare statistics built either on the group (OSU or TrOSU) or on its operating divisions, if it has any (ISU or TrISU).

These possibilities are confirmed by initial experience in this area, redefined enterprise units in the three groups currently under observation, and the thematic survey on methods and resources for managing intangible assets.

## 10 Impact of choice of statistical unit on description of the French economy

The legally defined firm is the unit on which all business statistics have so far relied. For some statistics, we can already measure the possible impact of a change of reference unit that incorporated enterprise groups.

<sup>121</sup> Statistically, the economic weight of firms that consist of groups’ equity stakes is relatively weak: it represents about 300,000 employees.

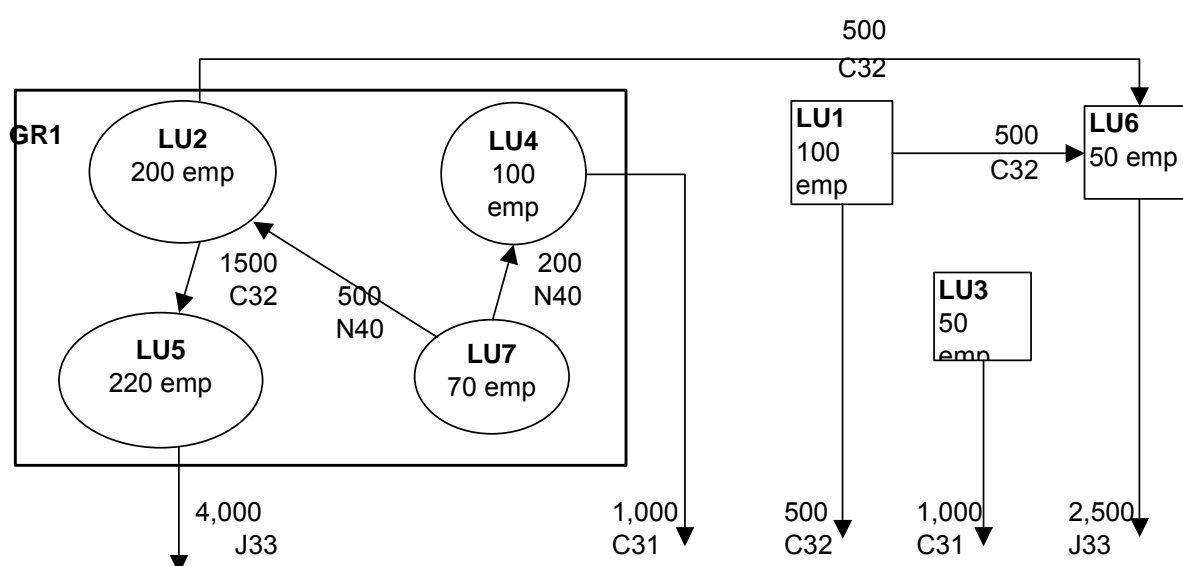
### 10.1 Alternative descriptions applied to a theoretical example

The purpose of the following example is to assess the possible impact of the use of statistical units that would take the group dimension into account.

The example consists of an economy composed of seven firms (legal units), four of which belong to the same group.

The diagram below shows the size of each firm measured by salaried employees and the flows (materialized by a turnover [sales] figure and the activity sector concerned by that figure) between the different units and the flows towards the final consumer.

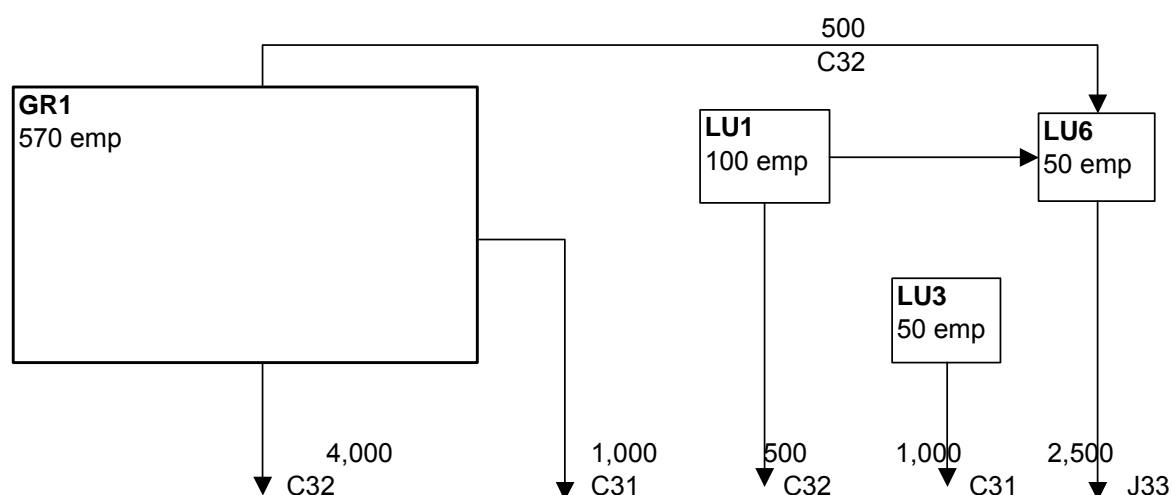
The first diagram reflects an observation of the economy based on firms as legal units: for example, firm LU2 engages in a single activity (cosmetics industry (C32-NES 36). It sells its production to firm LU5 (turnover=1,500) and LU6 (turnover=500). The sole activity of firm LU5 is retailing (J33) to the final consumer (turnover=4,000).



The description of sectors based on the observation of firms as legal units will produce the following statistics:

Sector	Salaried employees	Sales
C31	150	2,000
C32	300	3,000
J33	270	6,500
N40	70	700
<b>Total</b>	<b>790</b>	<b>12,200</b>

If the group of firms replaces the firms (subsidiaries) that compose it as the statistical unit, the diagram of the economy becomes as follows:



By construction, the inclusion of the aggregate group causes the intra-group flows to “disappear” from the observation. This entails other changes.

In the previous diagram, sales of firm LU5 to the final consumer (turnover=4,000) were categorized as a retail activity, since firm LU5 merely resold the goods purchased from firm LU2; hence its classification under J33 (retail trade).

By taking group GR1 directly into account, and so disregarding its internal organization, group sales to the same final consumers (for the same turnover of 4,000) are no longer viewed as retailing. From the group’s standpoint, these sales (4,000) consist only of (retail) selling of the group’s production. It thus becomes a standard production activity, whose sale by the same unit is only an ancillary activity.

Consequently, in this new approach to the economy, the 4,000 monetary units of perfume sales are classified under sector C32, not sector J33.

GR1’s principal activity of the entity (French APE code) is determined, in accordance with the rule, by examining only those activities that generate turnover for the entity considered, i.e., in this example, by examining the subsidiaries’ activities net of intra-group flows. We then apply the usual APE computation algorithm. We therefore ignore the activity of LU7, which, as it involves only intra-group sales, generates no turnover for the group entity. Similarly, we not take into account the sales by LU2 to LU5, which are intra-group flows.

In consequence, GR1’s “principal activity code” (APE) is C32.

The description of sectors based on this new observation yields the following statistics:

Sector	Salaried employees	Sales
C31	50	1,000
C32	690	6,500
J33	50	2,500
N40	0	0
<b>Total</b>	<b>790</b>	<b>10,000</b>

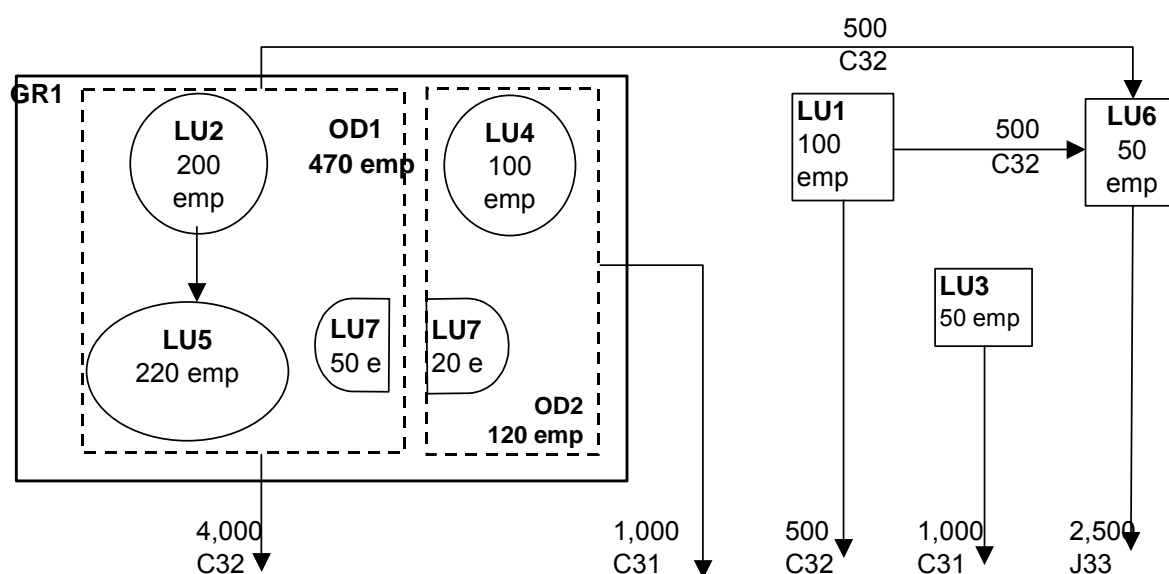
Note: the 690 employees assigned to sector C32 consist of GR1’s total employees classified under C32 (APE) plus LU1’s employees.

Counting the total group as a statistical unit significantly reduces the weight of the pharmaceutical industry (C31), as the corresponding activity in GR1 becomes a secondary activity; the latter does, however, continues to be measured in the “branch” statistics and in the information on secondary

activities of economic sectors. By contrast, sector N40 vanishes completely, as research “production” is totally internal to GR1; GR1’s research expenditures obviously remain, but they are now treated as intra-group expenditures and not as an activity generating turnover for GR1. It is an ancillary activity in the fullest sense.

The group may thus be perceived as an excessively comprehensive unit, as the shares of secondary activities in the sectors themselves may sometimes prove too large. The solution is to define group operating divisions that will allow a more refined approach in terms of activity (see §6.3.1).

We shall therefore “carve up” group GR1 into operating divisions (ODs), provided that this segmentation reflects reality for the group itself. Given the group’s activity, we can define two operating divisions: one for sector C31 (APE=C31) and one for sector C32 (APE=C32). Retailing and R&D are kept as ancillary activities in support of industrial activities.



The description of sectors based on this new observation yields the following statistics:

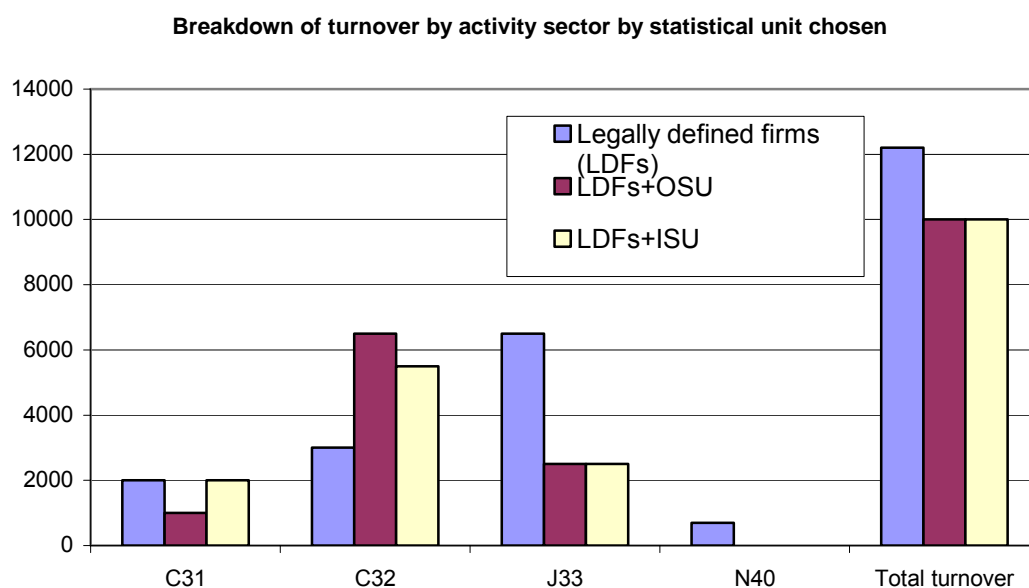
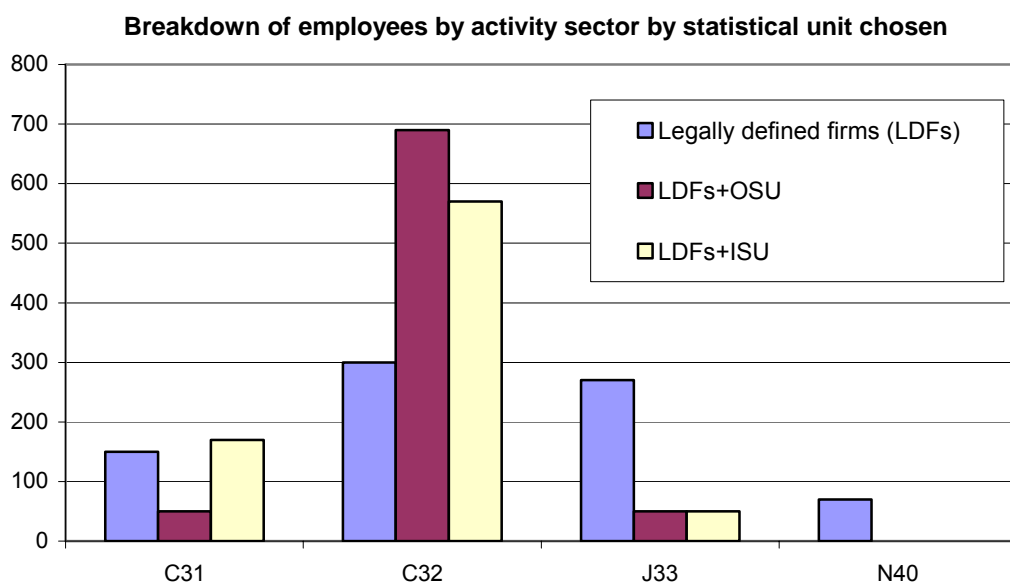
Sector	Salaried employees	Sales
C31	170	2,000
C32	570	5,500
J33	50	2,500
N40	0	0
<b>Total</b>	<b>790</b>	<b>10,000</b>

Note: the 170 employees assigned to sector C31 consist of DO2’s employees classified under C31 (APE) plus LU3’s employees; the 570 employees assigned to sector C32 consist of DO1’s employees classified under C32 (APE) plus LU1’s employees.

The following two charts show the impact of the choice of statistical unit on the distribution of the number of employees and turnover; the only difference stems from the approach used to deal with the group dimension:

- First approach: The group dimension is ignored. Each firm, regardless of whether or not it is a group subsidiary, is taken into account “as is”, i.e., with its actual legal status.
- Second approach: group subsidiaries are taken into account only via their group.
- Third approach: group subsidiaries are taken into account via the operating division to which they may belong.

In addition to a change in the activity breakdown by sector, we observe a decrease in turnover due to the elimination of intra-group or intra-operating-division sales.



After this illustrative example, let us simulate the all-sector impact of the systematic inclusion of enterprise groups in French business statistics.

## 10.2 Sources used and simulation methods applied to the total French economy

The basic population consists of legally defined firms identified in the SUSE database. The population studied comprises all resident units in France.

We have drawn on several information sources to prepare the simulations reported here:

- SUSE database for all economic variables
- LIFI database to define “enterprises”
- Customs database for analysis of imports-exports
- Database on consolidated financial statements for simulations encompassing French enterprises’ “world” dimension.

Most of our simulations consist in comparing the results obtained mainly through the use of two units<sup>122</sup>:

(1) the firm as legal unit

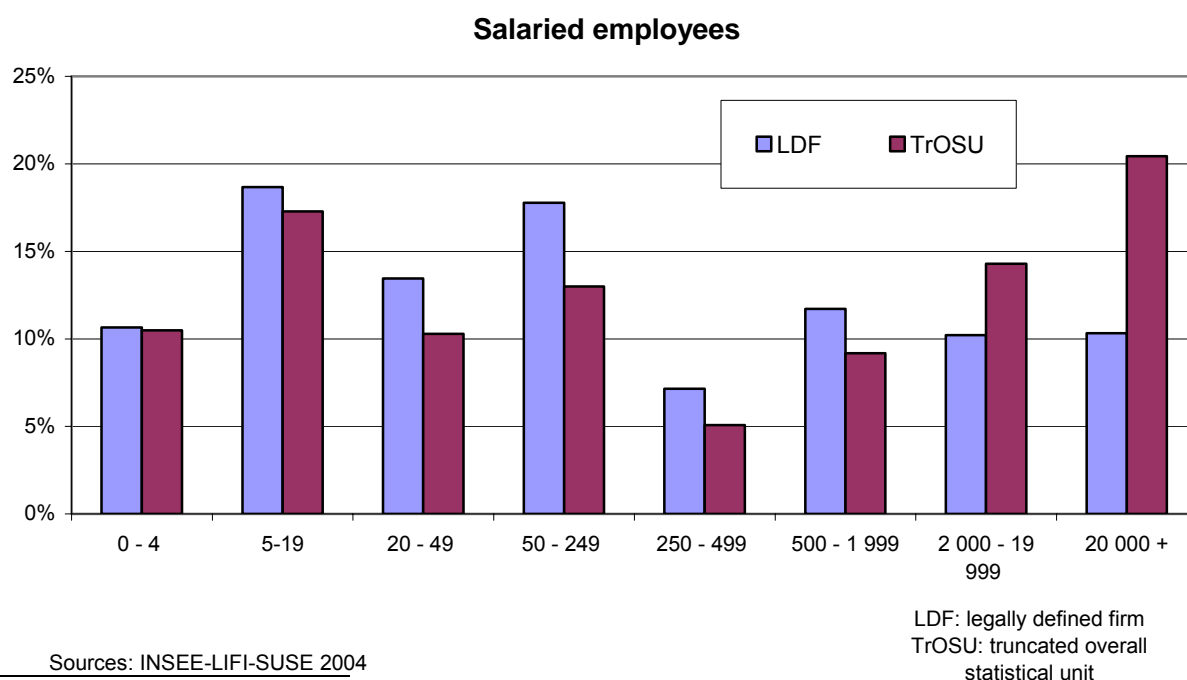
(2) the “Truncated Overall Statistical Unit” (TrOSU)<sup>123</sup> defined as follows:

- for unincorporated enterprises (natural persons) and firms not controlled by a group, the enterprise is the natural person or legal person.
- for firms belonging to a group: we replace the set of each group’s resident firms by a single enterprise, which is deemed to engage in the economic activity of these firms in the aggregate. Each enterprise is assigned the sum of the variables of all the firms (subsidiaries and head)<sup>124</sup>. To determine the principal activity of the enterprises thus defined, we use the data on the individual firms. We determine the characteristics of the truncated enterprise from its subsidiaries located on French territory.

### 10.3 Breakdown by enterprise size

The inclusion of groups in the definition of statistical units entails the definition of larger units.

#### Size breakdown of salaried employees, value added, and tangible fixed assets by statistical unit used

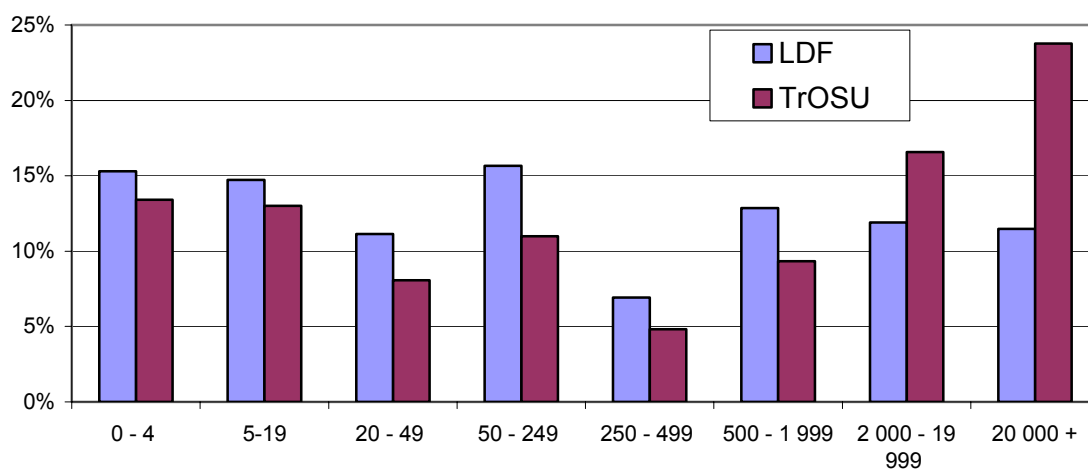


<sup>122</sup> The other units used for a simulation will be defined as needed.

<sup>123</sup> This is in the absence, obviously, of Truncated Intermediate Statistical Units (TrISUs). The distortions that we will identify will thus be maximal and, in principle, greater than those resulting from the use of TrISUs.

<sup>124</sup> In the absence of consolidated information.

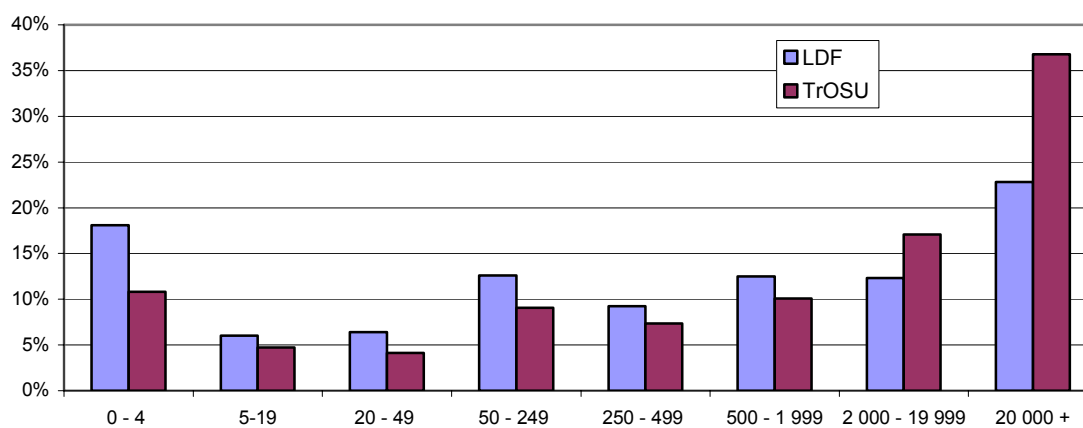
### Value Added



Sources: INSEE-LIFI-SUSE 2004

LDF: legally defined firm  
TrOSU: truncated overall statistical unit

### Tangible fixed assets



Sources: INSEE-LIFI-SUSE 2004

LDF: legally defined firm  
TrOSU: truncated overall statistical unit

The economic units with more than 2,000 employees occupy a dominant position for all the variables examined, at the expense of intermediate-size units (20-1,999 employees): TrOSUs with over 2,000 employees employ 35% of the workforce, whereas legally defined firms with more than 2,000 employees employ only 20%. The difference between the share of TrOSUs and that of legally defined firms with more than 2,000 employees is even greater for value added and tangible fixed assets.

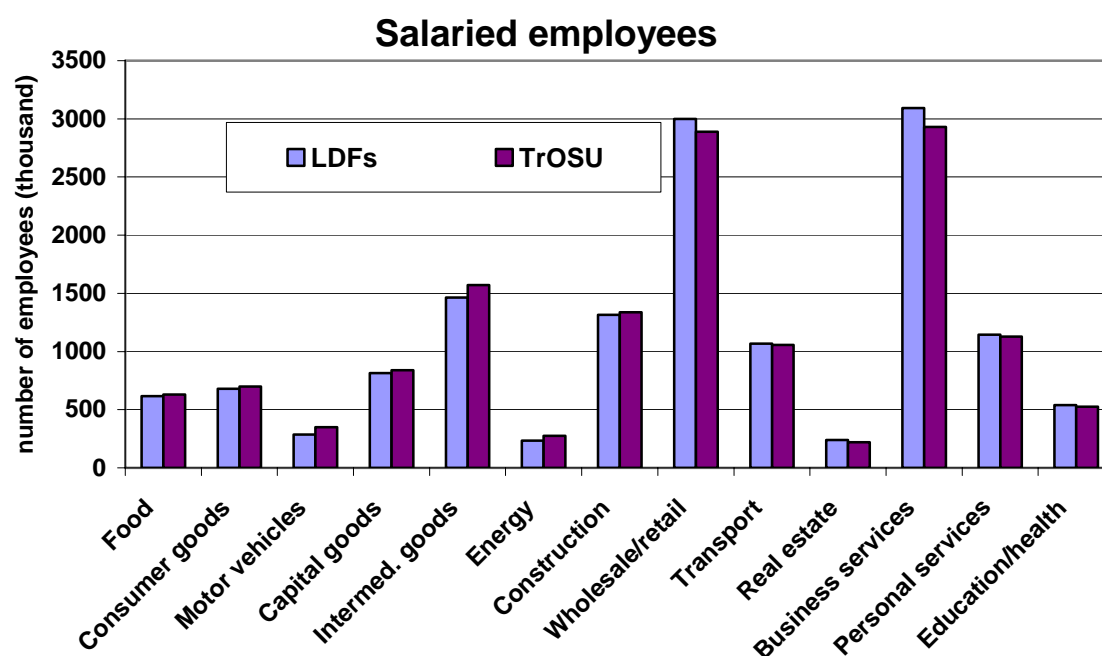
TrOSUs with over 2,000 employees account for nearly 55% of total fixed assets, versus 35% for legally defined firms with more than 2,000 employees.

#### 10.4 Breakdown by activity sector

For all the simulations performed that involve a sectoral breakdown, we determined the group's principal activity code (APEG) in keeping with the recommendations of Chapter 6 (§6.3.3), i.e., by defining the group's activities as the principal activity of the firms that compose it<sup>125</sup>.

To preserve a greater consistency with the determination of principal activity codes for legally defined firms (APENS<sup>126</sup>), we have excluded from the determination of group codes (APEGs) the firms that engage in a "functional" or support activity and that do so for all firms in the group. Examples include real estate, wholesaling/retailing, and R&D. A study on diversification by C. Picart and L. Gonzalez<sup>127</sup> identified functional activities as those represented in most groups whatever their principal activity, but accounting for only a modest share of total group activity (between 10% and 33% depending on the activity).

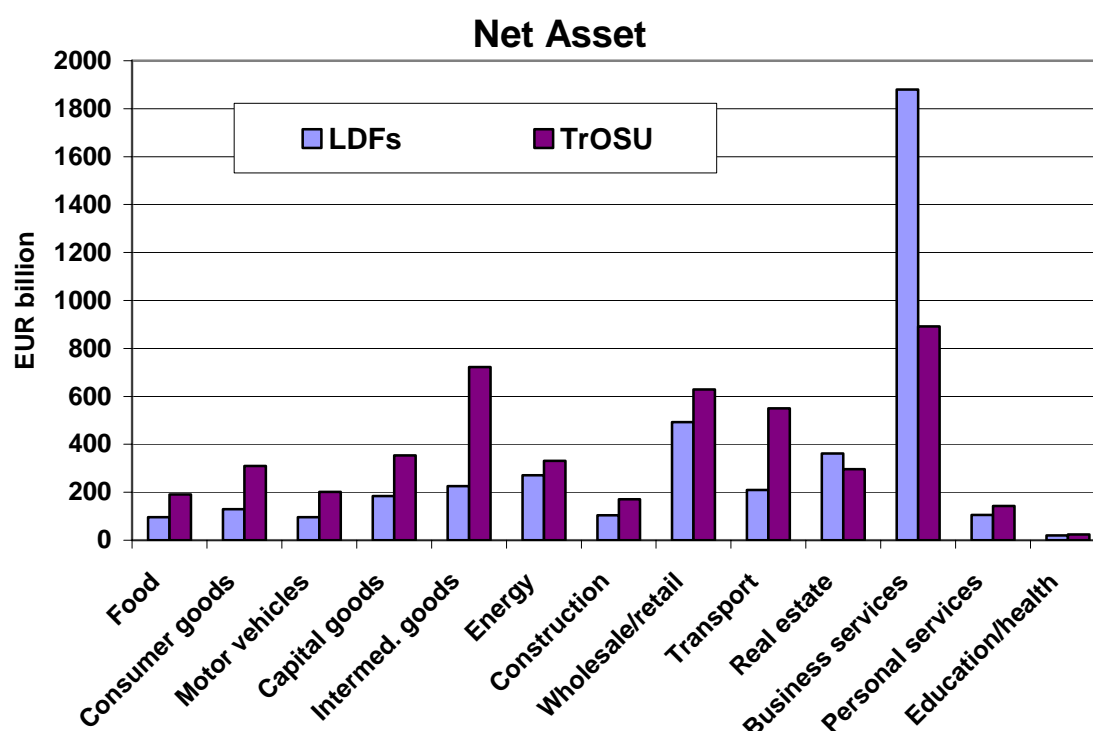
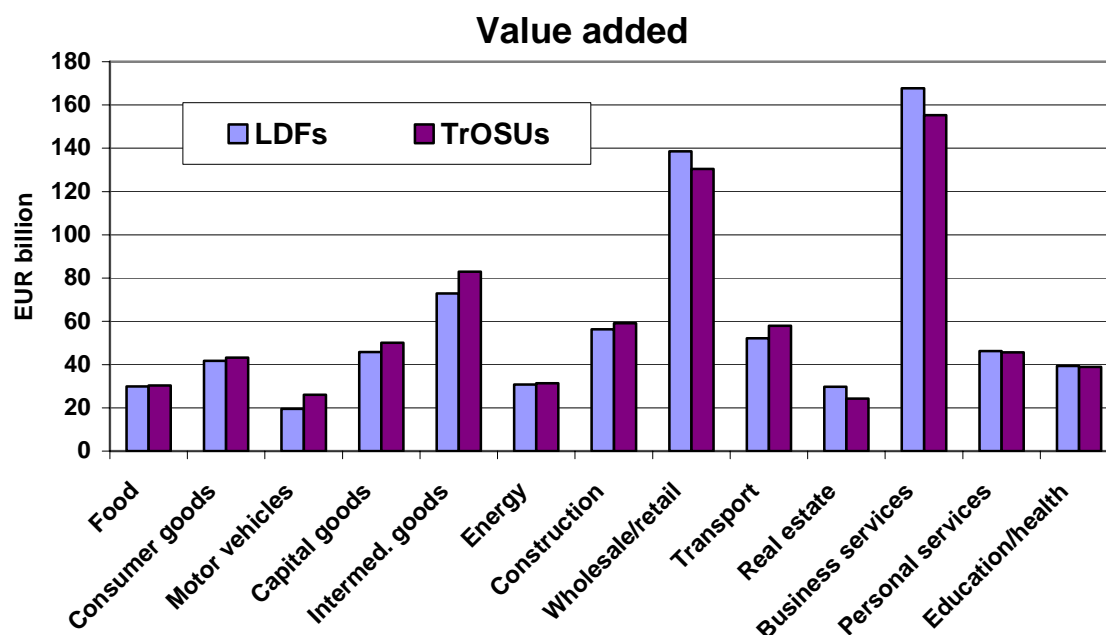
#### Breakdown of economic activity by three criteria and according to statistical unit examined



<sup>125</sup> Our tests indicate that this simplification does not have a significant impact on the activity code assigned.

<sup>126</sup> **A**ctivité **P**incipale **E**xercée par l'**E**ntreprise.

<sup>127</sup> C. Picart and L. Gonzalez, "Diversification, recentrage et poids des activités de support dans les groupes", INSEE Working Paper (Document de travail) no. G2006/15.



Sources: INSEE-LIFI-SUSE 2004

The use of truncated overall statistical units rather than legally defined firms to compute the breakdown of economic activity by sector (using NES 16 classes) does not radically alter the ranking obtained by using legally defined firms when applying the criterion of salaried employees or value added. We observe a “shift” toward industrial activities at the expense of wholesale/retail trade and business services. By contrast, the distribution of net asset worth between NES 16 classes is significantly modified: whereas 45% of net asset worth of legally defined firms falls into the category of business services (more specifically, of “business administration”: 741J), the use of TrOSUs yields a

distribution of net asset worth more consistent with economic reality. This difference reveals one of the roles of the holding company in the group: to manage the assets of firms belonging to the group.

The table below distributes the categories of the NES 114 summary classification and the NAF 700 classification by the difference observed in the figures for value added and employees depending on whether the statistics are based on the legally defined firm or the TrOSU.

For example, in 16.4% of the NES 114 classes, the difference between value added computed for legally defined firms and for TrOSUs is smaller than 2%. This accounts for 23.4% of total value added. Conversely, for 10.9% of the NES 114 classes and 4% of total value added, the difference exceeds 50%.

**Breakdown of sectors by difference observed in value added and salaried employees  
depending on reference unit used**

	Difference in terms of value added (VA) <sup>128</sup>				Difference in terms of salaried employees			
	Share of number of NES 114 classes	Share of VA: NES 114	Share of number of NAF 700 classes	Share of VA: NAF 700	Share of number of NES 114 classes	Share of VA: NES 114	Share of number of NAF 700 classes	Share in terms of salaried employee es - NAF700
Difference: < 2%	16,4%	23,4%	17,0%	20,0%	14,5%	17,0%	18,6%	18,6%
Difference: 2-4.9%	15,5%	16,0%	11,2%	14,3%	21,8%	28,8%	11,6%	16,3%
Difference: 5-9.9%	18,2%	16,0%	14,6%	15,2%	24,5%	21,1%	15,9%	22,3%
Difference: 10-19.9%	20,9%	21,7%	19,5%	16,4%	17,3%	25,1%	20,0%	16,4%
Difference: 20-49.9%	18,2%	19,0%	22,7%	23,5%	14,5%	6,4%	21,2%	14,9%
Difference: > 50%	10,9%	4,0%	14,9%	10,5%	7,3%	1,7%	12,4%	11,4%
	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

The more detailed the observation level, the greater the differences. At the detailed classification level (NAF 700), there are fewer than 30% of classes for which the difference in value added or salaried employees due to the choice of calculation unit is smaller than 2%. This represents 34% of total value added and 35% of total employees.

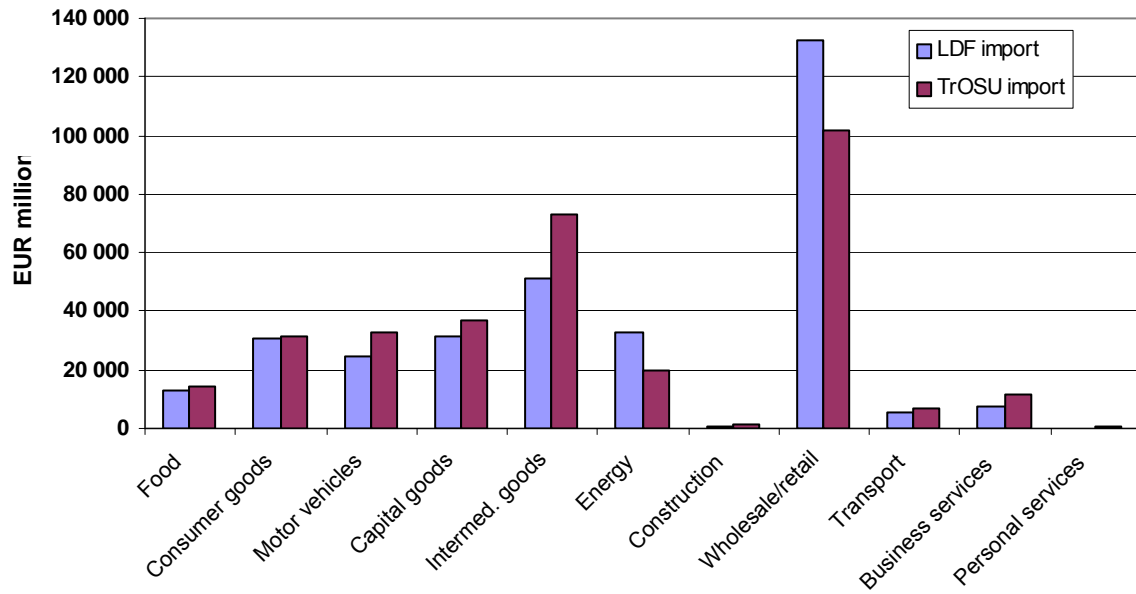
### 10.5 French enterprises involved in external trade

The number of French enterprises involved in external trade is small. About 100,000 legally defined firms declare import flows and an equivalent number declare export flows annually. Multinational enterprises play a major role. The observation of TrOSUs has a significant impact on the measurement of import and export flows by activity sector.

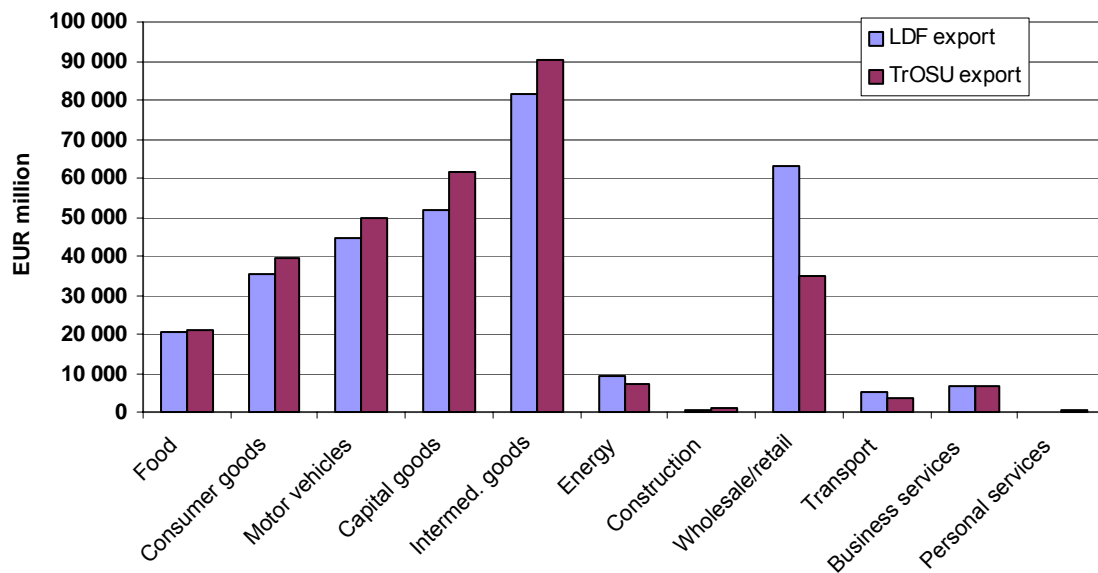
The role of wholesale/retail trade—particularly wholesaling—is very weak in imports as well as exports by comparison with manufacturing sectors. This reveals the role of trading subsidiaries in enterprise groups.

<sup>128</sup> Difference computed as follows: (VAsectOSU-VasectLDF)/VAsectLDF.

### Breakdown of goods imports by unit examined



### Breakdown of goods exports by unit examined



Sources: INSEE-LIFI 2004 and DGDDI 2004

**Sectoral breakdown by observed differences in import and export figures as a function of reference unit chosen**

	Difference in level terms, NAF 700			
	In number of sectors		In import or export figures	
	Imports	Exports	Imports	Exports
Difference: < 2%	14.8	8.2	8.0	5.7
Difference: 2-4.9%	9.2	8.2	7.8	8.4
Difference: 5-9.9%	11.3	10.9	14.7	22.9
Difference: 10-49.9%	34.6	33.3	58.2	39.8
Difference: > 50%	24.9	17.1	11.1	23.3
Sectors without imports-exports for legally defined firms	5.2	5.2		
Total	100.0	100.0	100.0	100.0

Sources: INSEE-LIFI 2004 and DGDDI 2004

### **10.6 Principal activity, concentration, specialization**

Using the TrOSU affects not only the breakdown of economic activity by sector, but also the resulting characteristics: concentration, specialization, and diversification.

#### **10.6.1 Concentration**

We have measured concentration with four variables: turnover, value added, number of employees, and imports-exports.

For the first three variables, we analyzed concentration at the NES 114 summary classification level. In each NES 114 activity, we classified the “enterprise” legal units, for both type of statistical units, by decreasing order of number of employees, value added, or turnover in their sector. We selected the n<sup>(129)</sup> largest units to determine sectoral concentration.

The combination of firms belonging to the same group into one enterprise may increase diversification. Higher concentration may thus be due to the addition of other activities to the sector’s principal activity. For turnover concentration, we have measured the contribution of these n enterprises to the sector’s “branch” turnover in the main branch corresponding to the sector. We cannot perform this calculation when concentration is measured by value added or the number of employees, as we lack the breakdown by branch of value added or the number of employees.

Using the TrOSU increases mean sectoral concentration, whether measured by value added, turnover, or number of employees. The change in definition of concentration (five or ten largest units) does not modify the difference between the two scenarios.

Measured by turnover, concentration grows far more sharply than on the basis of value added or the number of employees when we switch from legally defined firms to TrOSUs. The calculations are based on the aggregations of non-consolidated accounts (and not on consolidated turnover) and reveal double counting due to intra-group transactions.

<sup>129</sup> Here, we have used n=5 and n=10.

### Sectoral concentration - all sectors

	Weight of top 5 enterprises in each sector, %			Weight of top 10 enterprises in each sector, %		
Variable	scenario 1: LDF	scenario 2: TrOSU	Difference	scenario 1: LDF	scenario 2: TrOSU	Difference
Number of employees	19.2	31.9	12.7	23.5	36.5	13.0
Value added	24.2	38.5	14.3	29.2	43.3	14.2
Turnover	25.4	43.2	17.8	31.2	48.5	17.3

Source: INSEE-LIFI-SUSE 2004

On average, one-half of this increase in concentration is due to the impact of secondary activities handled by group subsidiaries.

### Sectoral concentration of turnover and share of turnover in principal activity

	Weight of top 5 enterprises in each sector, %			Weight of top 10 enterprises in each sector, %		
Variable	LDFs (%)	TrOSUs (%)	Differences USGTrs-SJs	LDFs (%)	TrOSUs (%)	Differences TrOSUs-LDFs
Total turnover of enterprises	25.4	43.2	17.8	31.2	48.5	17.3
Turnover of enterprises in their principal branch of activity	24.5	33.9	9.4	30.1	38.7	8.7

Source: INSEE-LIFI-SUSE 2004

### Results by sector (at NES 114 level)

In half the sectors, concentration is ten points higher using TrOSUs than with legally defined firms, whether measured by the number of employees, value added or turnover.

Using turnover, we find, as above, that, on average, less than one-half of the increase in concentration is due to the spin-off of secondary activities to subsidiaries, since the median of sectoral-concentration increases falls from 10% to 5-6% depending on whether it is computed on total turnover or only of the share of turnover realized in the principal activity.

### Difference in impact of two scenarios on sectoral concentration, %

Concentration measured via:	salaried employees		value added	
Top n enterprises	n=5	n=10	n=5	n=10
Sectoral gap observed in bracket:	Number of sectors concerned (N114)			
0 - 2 points	14	16	16	15
2 - 5 points	18	14	13	18
5 - 10 points	20	20	20	16
10-20 points	27	29	29	32
20-50 points	23	24	24	22
> 50 points	2	1	2	1

Total	104	104	104	104
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**Difference in impact of two scenarios on sectoral concentration of turnover and share of principal activity, %**

Difference in impact of two scenarios on sectoral concentration of turnover	Top 5 enterprises		Top 10 enterprises	
	Total	Realized in principal activity	Total	Realized in principal activity
Sectoral gap observed in bracket:	Number of sectors concerned (N114)			
< 0 point	4	12	3	13
0-5 points	23	31	27	33
5-10 points	19	29	16	21
10-20 points	27	17	25	23
20-50 points	28	14	31	13
> 50 points	3	1	2	1
Total	104	104	104	104

Source: INSEE-LIFI-SUSE 2004

The shift from the legally defined firm to the TrOSU influences not only the size of units, but also their sectoral ranking (and therefore on sector size as well).

It therefore modifies not only the concentration in these sectors but also the number of employees, value added, and turnover, altering the sectoral breakdown measured by using legally defined firms.

We measured concentration in terms of imports and exports for all sectors combined.

**Share of top 10 units in external trade according to unit used**

	LDF	TrOSU
Exports	16.3%	24.2%
Imports	13.4%	15.3%

**Share of top 20 units in external trade according to unit used**

	LDF	TrOSU
Exports	20.9%	31.7%
Imports	21.0%	24.6%

The switch from the legally defined firm to the TrOSU increases export concentration among the top 10-20 units. We do not observe the same concentration intensity for imports. If we compare the top 20 legally defined firm and the top 20 OSUs, we find that, for exports, several "legal" firms in the top 20 belong to the same group, so that the shift to OSUs intensifies concentration. The same phenomenon does not occur for imports. This reflects the fact that, in large groups, the import function is performed mainly by a single legal unit, whereas exports may be handled by several economic entities.

### 10.6.2 Specialization

We measure specialization by the share of turnover realized in the principal activity of the unit examined. The measure is the ratio of the segment engaged in the principal activity to the unit's total

turnover (excluding any functional activity that it may perform). The results are expressed in terms of the number of salaried employees in the statistical units and by value added.

The analysis of specialization requires a breakdown of statistical units' turnover by segment. For legally defined firms, those not covered by the Annual Enterprise Surveys (SAEs) are regarded as mono-segment firms. For TrOSUs, we ignore functional activities. We therefore subtract from total TrOSU turnover the share realized by subsidiaries engaged in a functional activity. These subsidiaries do not contribute to TrOSU turnover by segment either. This problem does not arise for legally defined firms, as these support activities are conducted in-house and do not show up in the firms' turnover.

Broadly speaking, TrOSUs are more diversified than legally defined firms. The difference is even more visible at more detailed classification levels. For example, for 94% of legally defined firms (measured by the number of salaried employees), the share of turnover realized in the principal activity exceeds 80%. Among TrOSUs, the proportion of units that realize over 80% of total turnover in their principal activity is 80%.

Note: The following points should be kept in mind when interpreting the above results:

1 – The share of legal units that we have assigned to a “diagonal” branch for lack of Annual Enterprise Survey information is significant in the 100% bracket, and leads us to downplay the latter's significance.

2 - Groups in the 100% bracket are, on average, smaller. Many have only one subsidiary (5,066 out of 12,885). Large groups are scattered across all brackets.

**Comparison between TrOSUs and legally defined firms<sup>130</sup>, classified by share of branch turnover generated by principal activity**

Threshold brackets, %	OSU				LSU (legal statistical unit)				OSU - LSU			
	Average no. salaried employees (thousand)	%	GVAFC (€m) *	%	Average no. salaried employees (thousand)	%	GVAFC (€m) *	%	Average no. salaried employees (thousand)	%	GVAFC (€m) *	%
<b>NES 16</b>												
Turnover=0	12	0,1	-1 229	-0,2	17	0,1	-2 833	-0,4	-5	0,0	1 604	0,2
0-20	212	1,5	22 519	3,1	35	0,3	2 800	0,4	177	1,3	19 719	2,7
20-40	457	3,3	27 161	3,7	80	0,6	5 293	0,7	377	2,7	21 868	3,0
40-60	679	4,9	44 588	6,1	236	1,7	16 575	2,3	443	3,2	28 013	3,8
60-80	1465	10,5	85 612	11,6	487	3,5	30 084	4,1	978	7,0	55 528	7,5
80-100	11 095	79,7	556 905	75,7	13 090	93,9	678 632	92,9	-1 995	-14,2	-121 727	-17,2
of which 80-90	1 041	7,5	58 815	8,0	499	3,6	30 501	4,2	542	3,9	28 314	3,8
of which 90-100	3 411	24,5	201 196	27,4	2 771	19,9	185 044	25,3	640	4,6	16 152	2,0
of which =100	6 643	47,7	296 894	40,4	9 821	70,4	463 086	63,4	-3 178	-22,7	-166 192	-23,0
Total	13 919	100,0	735 555	100,0	13 946	100,0	730 551	100,0	-27	0,0	5 004	0,0
<b>NES 36</b>												
Turnover=0	12	0,1	-1 229	-0,2	17	0,1	-2 833	-0,4	-5	0,0	1 604	0,2
0-20	277	2,0	27 419	3,7	45	0,3	3 282	0,5	232	1,7	24 137	3,3
20-40	552	4,0	33 814	4,6	96	0,7	5 918	0,8	456	3,3	27 896	3,8
40-60	784	5,6	46 241	6,3	290	2,1	19 320	2,7	494	3,6	26 921	3,6
60-80	1812	13,0	98 793	13,4	678	4,9	38 275	5,2	1134	8,2	60 518	8,2
80-100	10 482	75,3	530 515	72,1	12 819	91,9	666 591	91,2	-2 337	-16,6	-136 076	-19,1
of which 80-90	1 391	10,0	87 776	11,9	926	6,6	58 995	8,1	465	3,4	28 781	3,9
of which 90-100	2 731	19,6	157 946	21,5	2 581	18,5	166 229	22,8	150	1,1	-8 283	-1,3
of which =100	6 360	45,7	284 792	38,7	9 313	66,8	441 367	60,4	-2 953	-21,1	-156 575	-21,7
Total	13 919	100,0	735 555	100,0	13 946	100,0	730 551	100,0	-27	0,0	5 004	0,0
<b>NES 114</b>												
Turnover=0	12	0,1	-1 229	-0,2	17	0,1	-2 833	-0,4	-5	0,0	1 604	0,2
0-20	485	3,5	39 749	5,4	56	0,4	3 838	0,5	429	3,1	35 911	4,9
20-40	632	4,5	38 133	5,2	129	0,9	7 871	1,1	503	3,6	30 262	4,1
40-60	1210	8,7	66 968	9,1	544	3,9	31 402	4,3	666	4,8	35 566	4,8
60-80	2 083	15,0	113 273	15,4	848	6,1	46 083	6,3	1235	8,9	67 190	9,1
80-100	9 496	68,2	478 661	65,1	12 353	88,6	644 191	88,2	-2 857	-20,4	-165 530	-23,1
of which 80-90	1 187	8,5	75 077	10,2	1 077	7,7	70 911	9,7	110	0,8	4 166	0,5
of which 90-100	2 156	15,5	128 937	17,5	2 269	16,3	147 162	20,1	-113	-0,8	-18 225	-2,6
of which	6 153	44,2	274 646	37,3	9 008	64,6	426 118	58,3	-2 855	-20,4	-151	-

<sup>130</sup> Excluding sectors A, L, Q, R, and Z of the “enterprise” principal activity code (APE) for legal units and the two profiled units; “group” principal activity code (APEG) for groups.

=100											472	21,0
Total	13 919	100,0	735 555	100,0	13 946	100,0	730 551	100,0	-27	0,0	5 004	0,0
<b>NAF 700</b>												
Turnover=0	12	0,1	-1 229	-0,2	17	0,1	-2 833	-0,4	-5	0,0	1 604	0,2
0-20	930	6,7	63 838	8,7	148	1,1	8 881	1,2	782	5,6	54 957	7,5
20-40	993	7,1	54 802	7,5	282	2,0	14 695	2,0	711	5,1	40 107	5,4
40-60	1 684	12,1	89 499	12,2	925	6,6	49 400	6,8	759	5,5	40 099	5,4
60-80	2 057	14,8	112 849	15,3	1110	8,0	60 350	8,3	947	6,8	52 499	7,1
80-100	8 244	59,2	415 796	56,5	11 464	82,2	600 059	82,1	-3 220	-23,0	-184	-
											263	25,6
of which 80-90	1 034	7,4	67 258	9,1	1 241	8,9	78 574	10,8	-207	-1,5	-11 316	-1,6
of which 90-100	1521	10,9	95 289	13,0	1 895	13,6	128 549	17,6	-374	-2,7	-33 260	-4,6
of which =100	5 689	40,9	253 248	34,4	8 328	59,7	392 936	53,8	-2 639	-18,8	-139	-
											688	19,4
Total	13 919	100,0	735 555	100,0	13 946	100	730 551	100	-27	0	5 004	0

\*GVAFC: gross value added at factor cost

Source: INSEE-LIFI-SUSE 2003

### 10.7 The choice of statistical unit can significantly alter the characteristics of a sector: the case of the motor-vehicle industry

We have chosen the motor-vehicle industry (341Z) as a case study because it is, at present, the only sector for which the statistical system allows us to test the largest number of possible configurations. We were able to compare five populations representing different categories of business-statistics units:

Population 1: Legally defined firms in sector 341Z

Population 2: Profiled units and legally defined firms outside profiling scopes of sector 341Z

Population 3: Truncated overall statistical units (TrOSUs)

Population 3a: Truncated overall statistical units incorporating intermediate statistical units controlled by a foreign group in the motor-vehicle industry

Population 4: TrOSUs composed of legally defined firms and profiled units

Population 5: motor-vehicle industry OSUs in their global dimension.

#### 10.7.1 Number of units

The difference between populations 1 and 2 is due to firms amalgamated into the two profiled units.

Populations 3 and 4 comprise 17 groups and 135 non-group enterprises.

Population 3a comprises 26 groups (+ 9 subgroups not classified in motor-vehicle industry in France) and 135 non-group enterprises.

Population 5 is composed of 11 French groups and 135 non-group enterprises.

#### Number of units in 2003

	<u>Population</u> <u>1</u>	<u>Population</u> <u>2</u>	<u>Population</u> <u>3</u>	<u>Population 3</u> <u>a</u>	<u>Population</u> <u>4</u>	<u>Population</u> <u>5</u>
Number of units	195	180	152	161	152	146

Sources: SUSE (FICUS) and LIFI 2003

### 10.7.2 Breakdown of number of employees by enterprise size

In theory, profiling can have a sizeable impact on the measurement of the number of employees in a sector if the enterprises included in the profiling and not belonging to the sector have a large workforce.

This is not the case for the motor-vehicle industry.

Populations 3 and 4 are necessarily identical, since they incorporate all the units of the group, whatever their sector.

#### Breakdown of number of employees by unit size in 2003

Unit: thousands of employees

	<b>Population 1</b>	<b>Population 2</b>	<b>Population 3</b>	<b>Population 3a</b>	<b>Population 4</b>	<b>Population 5</b>
0-19 employees	0.2	0.2	0.1	0.1	0.1	0.1
20-49 employees	0.4	0.9	0.2	0.2	0.2	0.1
50-249 employees	1.0	1.0	0.2	0.2	0.2	0.2
250 à 499 salariés	1.0	1.0	0.5	0.8	0.5	0.2
500-999 employees	0.9	0.9	0.4	0.6	0.4	0.0
1,000-9,999 employees	17.9	17.8	2.6	7.8	2.6	1.3
10,000+ employees	78.6	78.2	96.0	90.2	96.0	98.1
<b>Total</b>	100.0	100.0	100.0	100.0	100.0	100.0

Sources: LIFI, DADS 2003, and consolidated financial statements

#### Labour productivity (production per salaried employee) by unit size in 2003

EUR thousand per employee

	<b>Population 1</b>	<b>Population 2</b>	<b>Population 3</b>	<b>Population 4</b>
0-19 employees	141 438	135	94	94
20-49 employees	249	249	167	167
50-249 employees	197	197	181	181
250-499 employees	269	200	271	271
500-999 employees	212	212	172	172
1,000-9,999 employees	390	421	323	323
10,000+ employees	691	507	763	410
<b>Total</b>	941	488	744	405

Source : Lifi, DADS 2003 et comptes consolidés

Labour productivity is very sensitive to the statistical unit chosen. We observe a very high value for labour productivity of legally defined firms in the 0-19 employees class. The inclusion of more "comprehensive" units eliminates this anomaly. The latter is due to a separation, in enterprise groups, between workforce management (the workforce being grouped together in a subsidiary) and production, carried out by subsidiaries that have no employees.

### 10.7.3 Regional breakdown of workforce

The shift to statistical units comprising enterprise groups and non-groups entails a large increase in workforce size in regions that do not produce motor vehicles: one example is Aquitaine, with a 15-fold rise. Most of these jobs are in the motor-vehicle trade.

Unit: thousands of employees

Number of employees	Population 1	Population 2	Population 3	Population 3a	Population 4
Ile-de-France	33.1	33.5	31.1	31.3	31.1
Champagne-Ardenne	1.5	1.5	1.6	1.5	1.6
Picardie	0.0	0.0	1.1	1.4	1.1
Haute-Normandie	7.3	7.2	6.4	6.0	6.4
Centre	0.8	0.8	1.1	1.1	1.1
Basse-Normandie	3.2	3.2	3.5	3.3	3.5
Bourgogne	0.7	0.7	1.2	1.1	1.2
Nord-Pas de Calais	12.6	12.6	11.4	10.9	11.4
Lorraine	6.1	6.1	4.9	5.2	4.9
Alsace	6.9	6.8	5.9	6.4	5.9
Franche-Comté	11.5	11.4	11.1	10.4	11.1
Pays de Loire	2.7	2.6	3.0	2.8	3.0
Bretagne	5.2	5.1	5.1	4.7	5.1
Poitou-Charentes	1.0	1.0	1.1	1.0	1.1
Aquitaine	0.1	0.1	0.7	2.1	0.7
Midi-Pyrénées	0.0	0.0	0.7	0.7	0.7
Limousin	0.5	0.5	0.4	0.4	0.4
Rhône Alpes	6.1	6.1	7.5	7.2	7.5
Auvergne	0.5	0.5	0.5	0.4	0.5
Languedoc-Roussillon	0.1	0.1	0.6	0.6	0.6
Provence-Alpes Côte d'Azur	0.1	0.1	1.2	1.4	1.2
Corse	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0

Sources : LIFI and DADS 2003

### 10.7.4 Imports and exports in 2003

#### Imports and exports

EUR billion	Population 1	Population 2	Population 3 and 4	Population 3a
Exports	32.4	32.3	34.4	36.5
Imports	13.9	14.1	17.5	28.5

Sources: Customs and LIFI 2003

Warning: the information in this table is not comparable with that of the charts in §10.5. The "motor-vehicle industry" (*industrie automobile*) sector of the NES 16 classification includes the motor-vehicle equipment industry whereas the figures above concern the motor-vehicle manufacturing sector only (341Z in NAF 700).

We note a steep rise in imports when the motor-vehicle manufacturing sector is extended to include French subsidiaries that are owned by foreign motor-vehicle manufacturing groups but operate outside the motor-vehicle manufacturing sector (population 3a). The main activity of these groups in France is the motor-vehicle trade.

### 10.7.5 Main balances and aggregates of the General Chart of Accounts (Plan Comptable Général) in 2003

Value added (VA), gross operating surplus (GOS), registered capital, and fixed assets

EUR billion	Population 1	Population 2	Population 3	Population 3a	Population 4	Population 5
VA incl. other revenues and expenses	14.6	14.7	22.1	25.0	22.2	20.2
GOS incl. other revenues and expenses	7.0	7.1	11.8	12.9	11.9	8.5
GOS	6.3	7.1	11.0	12.9	11.9	8.5
Registered capital	12.5	12.1	20.6	23.7	20.2	
Plant and equipment	37.6	39.4	55.0	60.6	56.9	55.2

Sources: SUSE (FICUS and BRN) and LIFI 2003

### 10.7.6 Breakdown of turnover by activity in 1999

The year 1999 is the only one in which a comparison is possible between populations 1, 2, 3, and 4.

#### Total turnover for all activities (sales net of tax, EUR billion)

Population 1	134.3
Population 2	73.5
Population 3	153.6
Population 3a	167.8
Population 4	92.7

Sources: Annual Enterprise Survey (EAE) and SUSE 1999

#### Main findings:

- Legal units and profiled units have very similar breakdowns by activity. The inclusion of profiled units leads to a slight increase in concentration in the motor-vehicle industry **branche**;
- The activities of groups, which incorporate enterprises in other sectors besides motor vehicles, are more diversified than those of motor-vehicle manufacturing enterprises alone. The groups cover 101 activities in the NAF 700 classification, versus 25 for the population consisting only of legal units and 40 for the population including profiled units.
- Motor-vehicle manufacturing, an activity that generates more than 80% of turnover for enterprises in the sector, accounts for only 70% of group turnover.
- Most of the difference is due to motor-vehicle trade (501Z), which contributes more than 13% to group turnover and less than 4% to the turnover of enterprises (whether legal units or profiled units).

#### Breakdown of turnover by NES 16 category (%) in 1999

Industries accounting for at least 1% of total	Population 1	Population 2	Population 3	Population 3a	Population 4
EC Consumer goods	0.0	0.0	1.1	1.0	1.8
ED Motor vehicles	84.3	91.8	73.6	68.3	72.5
EE Capital goods	1.2	0.8	1.9	1.7	2.0
EF Intermediate goods	1.6	0.5	1.7	1.6	1.0

EJ Wholesale/retail trade	3.0	4.5	10.6	16.8	16.7
EK Transport	0.0	0.0	1.4	1.2	2.3
EN Business services	9.9	2.4	9.7	9.1	3.6
Total	100.0	100.0	100.0	100.0	100.0

Sources: Annual Enterprise Survey (EAE) and SUSE 1999

#### Breakdown of turnover by NES 36 category (%) in 1999

Industries accounting for at least 1% of total	Population 1	Population 2	Population 3	Population 3a	Population 4
C4 Home equipment	0.0	0.0	1.1	1.0	1.8
D0 Motor vehicles	84.3	91.8	73.6	68.3	72.5
E2 Mechanical equipment	1.2	0.8	1.7	1.6	1.7
J1 Trade and repair of motor vehicles	2.5	3.5	10.0	16.2	15.8
K0 Transport	0.0	0.0	1.4	1.2	2.3
N2 Consulting and assistance	8.9	1.1	8.0	7.5	1.2
N3 Operating services	1.0	1.3	1.7	1.7	2.4
Total	100.0	100.0	100.0	100.0	100.0

Sources: Annual Enterprise Survey (EAE) and SUSE 1999

#### Breakdown of turnover by NES 114 category (%) in 1999

Industries accounting for at least 1% of total	Population 1	Population 2	Population 3	Population 3a	Population 4
C41 Furnishings	0.0	0.0	1.1	1.0	1.8
D01-Construction automobile	73.5	83.6	63.0	57.7	64.1
D02 Motor-vehicle equipment	10.8	8.2	10.6	10.6	8.4
J10 Trade and repair of motor vehicles	2.5	3.5	10.0	16.2	15.8
K09 Organization of freight transport	0.0	0.0	1.2	1.1	2.1
N23 Business administration	6.1	0.7	5.4	5.0	0.7
N25 Architecture, engineering, control	2.8	0.4	2.5	2.3	0.5
N33 Security, cleaning, and other	1.0	1.3	1.0	0.9	1.3
Total	100.0	100.0	100.0	100.0	100.0

Sources: Annual Enterprise Survey (EAE) and SUSE 1999

#### Breakdown of turnover by APE700 category (%) in 1999

Industries accounting for at least 1% of total	Population 1	Population 2	Population 3	Population 3a	Population 4
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341Z Motor-vehicle manufacturing	73.5	83.5	62.9	57.6	64.0
343Z Manufacture of motor-vehicle equipment	10.8	8.2	10.6	10.6	8.4
361A Manufacture of seats	0.0	0.0	1.1	1.0	1.8
501Z Trade in motor vehicles	1.8	3.0	7.9	13.3	12.9
503A Wholesaling of motor-vehicle equipment	0.5	0.3	0.8	1.5	0.8
503B Retailing of motor-vehicle equipment	0.1	0.2	0.9	0.9	1.5
711Z Rental of motor vehicles	0.0	0.0	0.7	0.7	1.1
741J Business administration	6.1	0.7	5.4	5.0	0.7
742C Engineering, technical studies	2.8	0.4	2.5	2.3	0.5
748K Ancillary services for production	1.0	1.3	1.0	0.9	1.3
Total	100.0	100.0	100.0	100.0	100.0

Sources: Annual Enterprise Survey (EAE) and SUSE 1999

Economic and financial concentration in 2003

#### Weight of three largest units

Populations	% of turnover	% of workforce
Population 1	68.4	82.8
Population 2	89.4	86.2
Population 3	91.5	89.9
Population 3a	82.2	78.3
Population 4	83.9	89.9
Population 5	99.3	99.0

Sources: SUSE and LIFI 2003

### 10.7.7 The motor-vehicle manufacturing market

#### The markets in 1999

	Population 1	Population 2	Population 3	Population 3a	Population 4
Output of motor-vehicle sector (APE 341Z)	98,681	61,371	96,648	96,695	59,338
Output of rest of economy in motor-vehicle industry branche (APE ≠ 341Z)	156	156	2 189	2 142	2189
Total output of 341Z industry	98,837	61,527	98,837	98,837	61,527
Domestic market	96,702	59,392	94,669	94,716	57,359
Domestic production	82,418	45,108	78,592	77,767	41,282
Production by French units	97,958	60,648	96,206	96,206	58,896
Domestic production by French units	82,059	44,749	78,168	78,168	40,858
Market share of <b>resident units</b> of French enterprises	0.85	0.72	0.82	0.82	0.71

Source: Annual Enterprise Survey (EAE) 1999

Definitions used:

domestic production (sectoral) = production by sector - exports by sector

domestic market (for a product) = production by industry branche - product exports + product imports  
 market share of **resident units** of French enterprises = domestic production by French units / domestic market

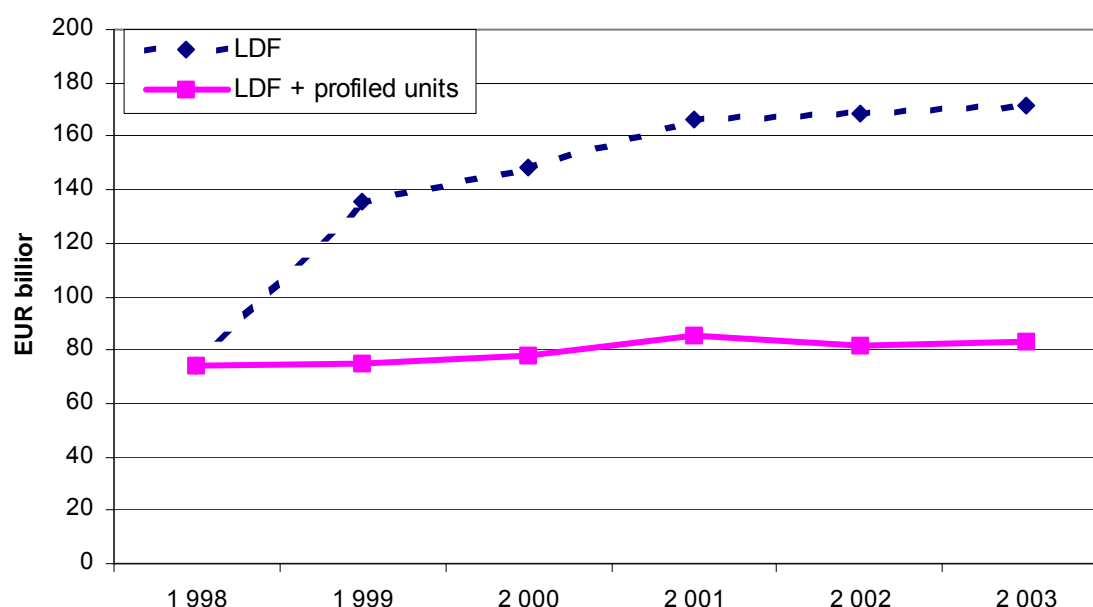
The measurement of domestic-market share depends rather heavily on the choice of statistical unit.

### **10.8 Impact of intra-group flows on changes in sector turnover: the case of the motor-vehicle industry**

The following chart compares the change in motor-vehicle industry turnover for two populations: the first consists of legally defined firms (legal units); the second also includes any profiled units identified in the sector. Turnover for the two populations was nearly equivalent in 1998. By contrast, in 1999, turnover for legally defined firms rose significantly whereas that of the population including profiled units stagnated. This pattern reflects the organizational change in the PSA group, which led to an increase in intra-group flows. For the period 1999-2003, turnover by legally defined firms rose an average 6% whereas turnover by firms including profiled units gained only 2%. This indicates an intensification of intra-group flows in the sector.

The inclusion of intra-group flows therefore has an impact not only on the level but also on the change in turnover.

#### **Change in turnover in motor-vehicle industry by choice of statistical observation unit**



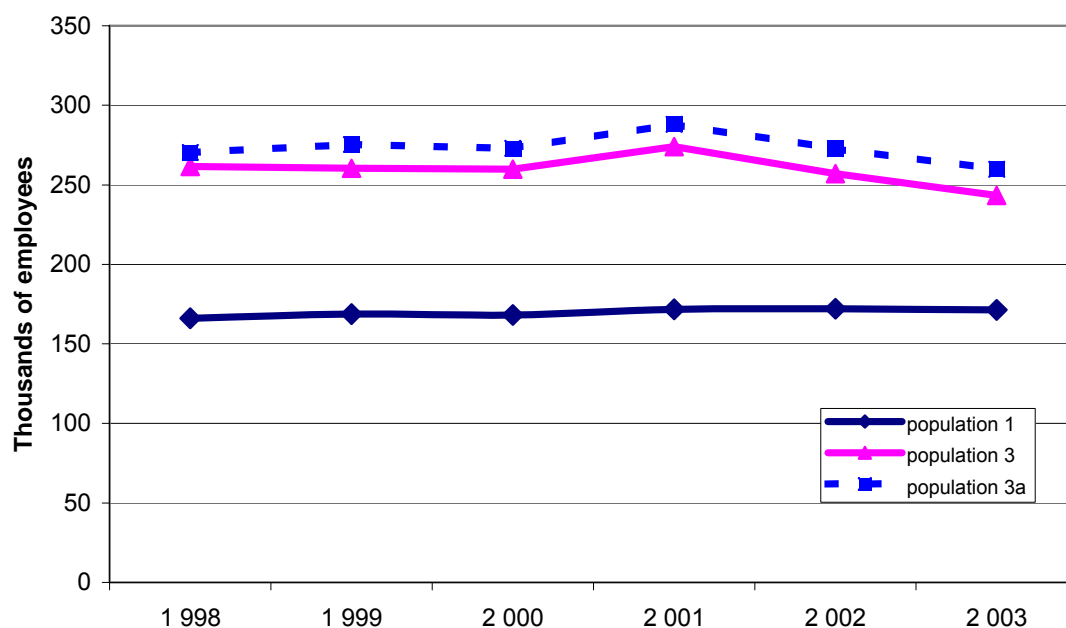
### **10.9 The choice of statistical unit may shape changes over time: the case of the motor-vehicle industry**

The populations defined above have different scopes of coverage, which explains the difference in employment levels. For example, population 3 includes employees of subsidiaries of groups classified in the motor-vehicle industry whose activity does not belong to that sector.

Population 3a is the largest since it includes subsidiaries in France of foreign groups classified in the motor-vehicle industry. These subsidiaries do not engage in motor-vehicle industry activity.

The changes in workforce size in these five populations reveal two distinct trends: (1) employees of legally defined firms (populations 1 and 2) rose an average 0.6% a year between 1998 and 2003; (2) the number of employees in TrOSUs (populations 3, 3a, and 4) dipped between 0.8% and 1.4% depending on the population in the same period.

### Change in employment in motor-vehicle manufacturing sector by choice of statistical observation unit

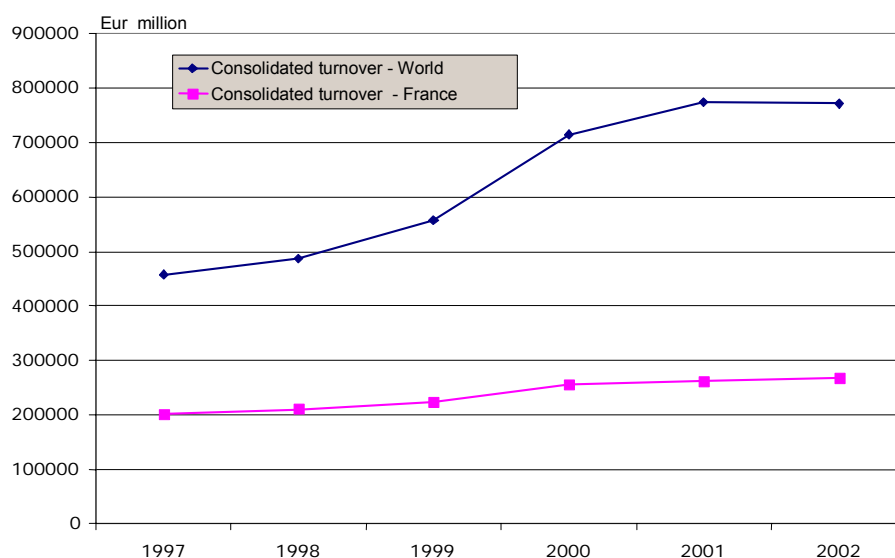


Sources: DADS 1998-2003 and LIFI 1998-2003 - Unit: thousands of employees

### 10.10 The geographic scope of analysis of statistical units heavily influences the results

The following example is taken from an article by L. Dervieux<sup>131</sup>. The author describes the changes in activity in France and worldwide between 1997 and 2002 for 32 non-financial groups listed on the Paris stock exchange (CAC 40). Changes are measured through several economic characteristics: turnover, number of employees, and fixed assets.

The results are similar for all the variables examined: in the period activity 1997-2002, the “global” activity of the CAC40 enterprises grew far more briskly than their “French” activity.



<sup>131</sup> L. Dervieux: “L’accélération de l’internationalisation des grands groupes français entre 1997 et 2002”, *Économie et statistique*, no. 363-364-365 (2003).

### 10.11 How many operating divisions in EGs?

The results reported here are taken from a study on a sample of 90 EGs in the population of the 290 EGs with more than 2,000 employees ("world" size). We collected information on operating segments from the Euronext website for listed EGs and from corporate websites or annual reports for unlisted EGs. Information on operating segments is generally easy to gather, as EGs must report them under the IAS 14 standard (see §7.4). Activities have been classified at NAF level 700.

#### Estimated number of operating segments in population studied, by number of EG employees:

		< 10,000	10,000-50,000	50,000-100,000	100,000+	Total
Listed EGs	number of segments	140	97	35	58	<b>329</b>
	<i>mean number of segments</i>	1.9	2.7	2.9	3.1	2.7
Unlisted EGs	number of segments	207	42	5	9	<b>259</b>
	<i>mean number of segments</i>	1.7	2.3	1.5	3	2
Total	number of segments	346	136	40	67	<b>591</b>
	<i>mean number of segments</i>	1.8	2.6	2.5	3.0	2.5

The 290 EGs with more than 2,000 employees have a total of 590 operating segments, which average out to 2.5 segments per EG.

Among EGs with more than 2,000 employees, the number of EGs with more than one segment is estimated at 170. In about 30 of these EGs, the largest segment employs over 90% of the total workforce.

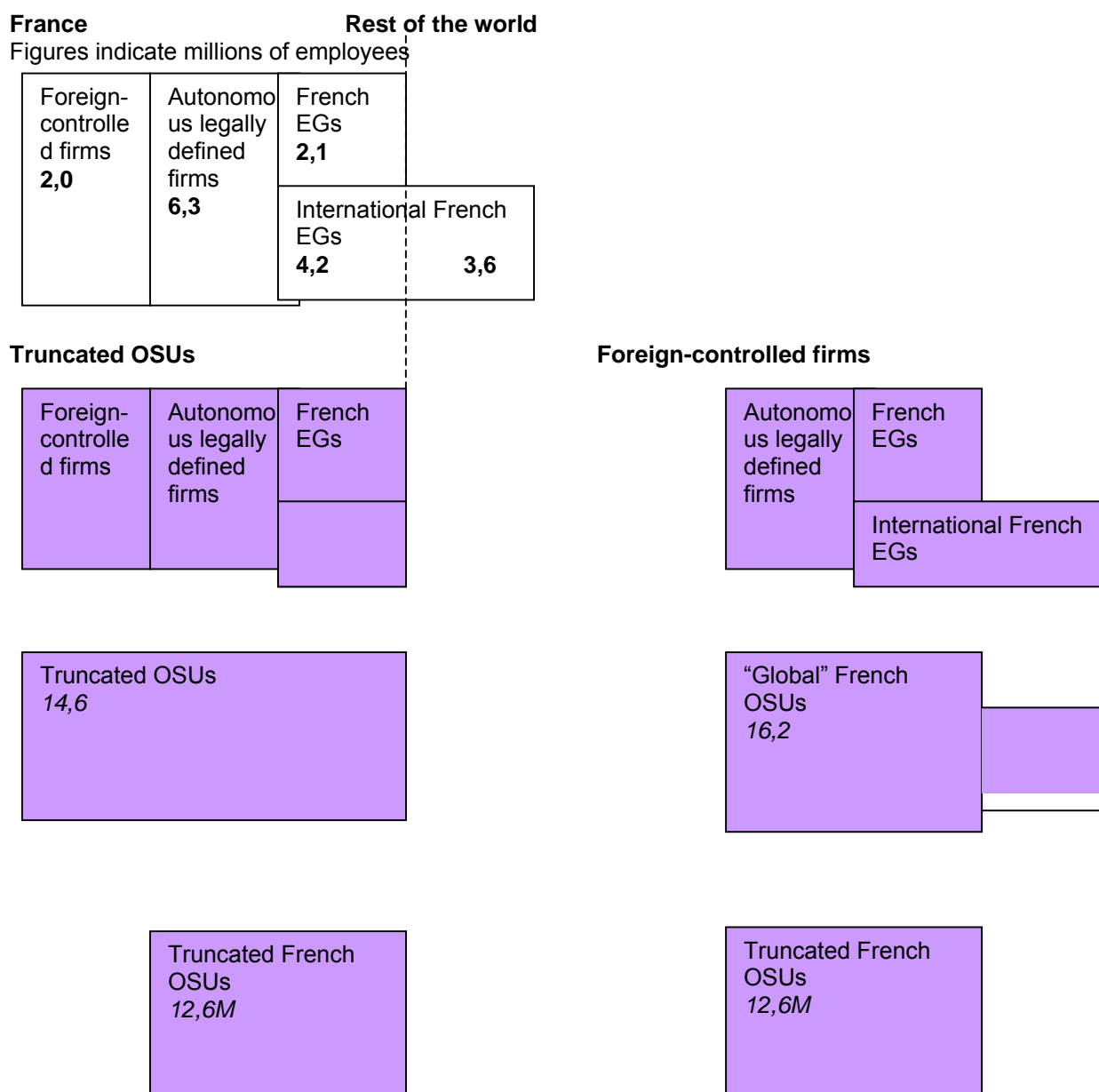
#### Breakdown of EGs with a single segment or with a main segment accounting for over 90% of the total workforce (estimate on total population)

	with a single segment				with a main segment accounting for over 90% of the total workforce			
	< 10,000	10,000-50,000	50,000-100,000	100,000+	< 10,000	10,000-50,000	50,000-100,000	100,000+
Listed EGs	19	4	1	0	19	3	2	5
Unlisted EGs	83	9	2	0	0	2	2	0
Total	101	13	3	0	19	5	4	5

## 10.12 The French economy: territory and control nationality

The vision of the economy changes depending on whether we observe resident units or French-controlled units. The following simulation illustrates the difference.

From the following situation, we define the “truncated OSUs” and the “global” French OSUs”:

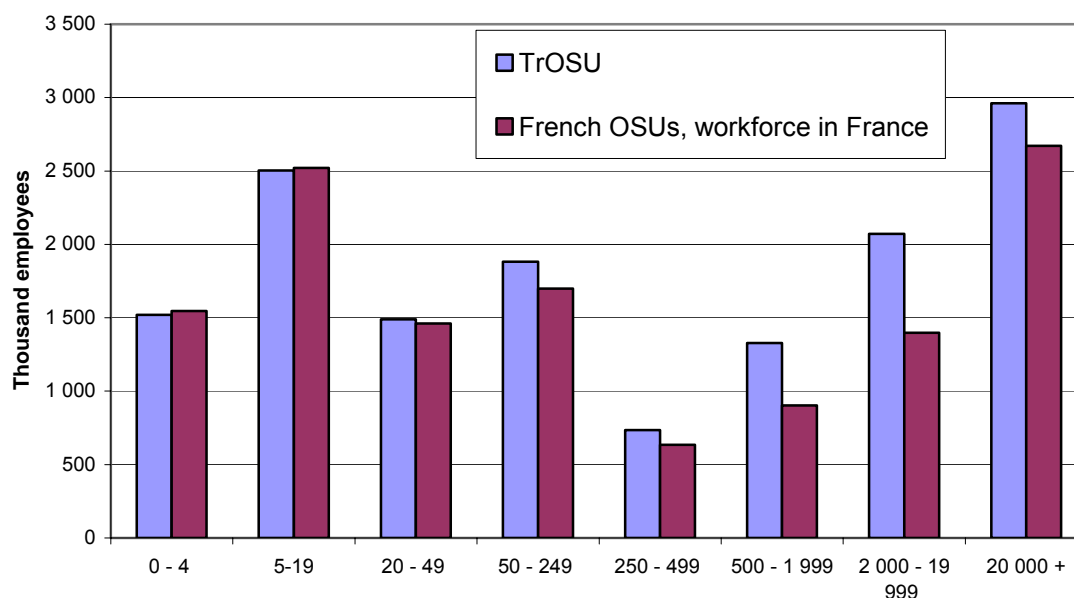


Resident units (TrOSUs) thus employ 14.6 million people, while French-controlled units (global USGs) employ 16.2 million.

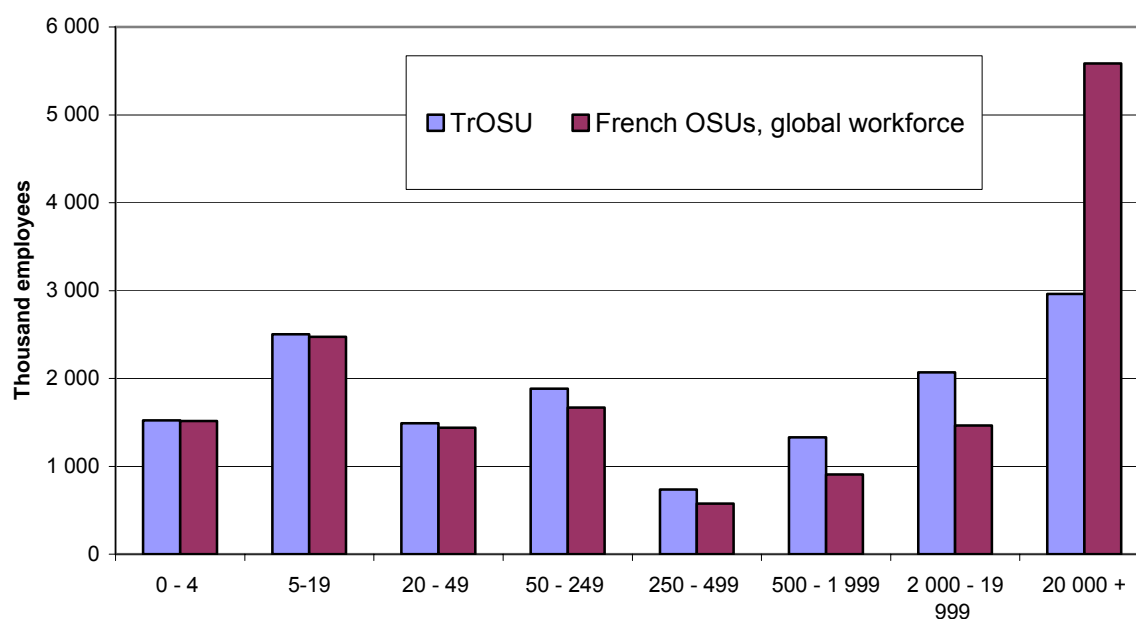
The next two charts depict the shift in number of employees from TrOSUs to “global” French OSUs. It is not only the workforce size that varies depending on whether we examine territory or nationality; it is also the units’ size distribution. From the first chart, we deduce that foreign-controlled TrOSUs are large units, with over 500 employees (note that this is the size of the sub-EG on French territory and not the size of the foreign EG to which the units belong).

The second chart shows that the inclusion of EGs in their global dimension makes EGs with more than 20,000 employees the principal size category, employing nearly 36% of the French-controlled workforce.

#### Switch from TrOSUs to French-controlled TrOSUs



#### Switch from French-controlled TrOSUs to French OSU in their “global” dimension



### 10.13 Chapter conclusion

The use of the OSU, TrOSU or TrISU in preparing business statistics would not radically alter the picture of the economy as a whole, but it would give a better view of its players and their respective weights. It would also enable statisticians to transcend the changes in the legal organization of economic entities: in principle, such changes are unrelated to the entities' economic development, and should therefore have no impact on it. For instance, an EG's transfer of a support activity to a subsidiary would no longer be counted as the creation of a new service activity.

The statistics most sensitive to the use of OSUs concern unit size. OSUs are larger than legally defined firms and thus more diversified. Their inclusion increases the measured degree of concentration of economic activity.

The changes observed are sufficiently sensitive to require back-casting after the change in observation unit, in order to ensure relevant time-series analysis.

## Part III: A consistent system of business statistics with comparable statistics

### 11 The inclusion of EGs<sup>132</sup> must preserve the coherence of the statistical system

One of the qualities that users expect in business statistics is a good overall coherence. While structural statistics do not pursue the same goals as sub-annual statistics or the national accounts, users do want the main conclusions on economic activity that they draw from the successive publication of the various figures to point in the same direction. In other words, the messages delivered by different statistics should be compatible.

The concern for consistency is asserted in Principle 14 (coherence and comparability) of the Code of Practice for the National and Community Statistical Authorities<sup>133</sup>:

*“European statistics should be consistent internally, over time and comparable between regions and countries; it should be possible to combine and make joint use of related data from different sources.”*

Of the five indicators associated with Principle 14, three deserve emphasis here:

*“Statistics are coherent or reconcilable over a reasonable period of time.”*

*“Statistics are compiled on the basis of common standards with respect to scope, definitions, units and classifications in the different surveys and sources.”*

*“Statistics from the different surveys and sources are compared and reconciled.”*

France’s exclusive use of the legal unit as statistical unit throughout the current statistical system promotes the system’s overall consistency. We should immediately note, however, that EU Regulations do not imply the use of a single statistical unit throughout the entire process—on the contrary. While the Structural Business Statistics (SBS) Regulation defines the enterprise as the basic statistical unit, the Short-Term Statistics (STS) Regulation recommends the enterprise as unit in some cases (retail, repair, and services sectors), and the kind-of-activity unit (KAU) in others (manufacturing and construction). The European System of Accounts (ESA), meanwhile, recommends the use of an even more “refined” unit for the analysis of the production and generation-of-income accounts: the local kind-of-activity unit (KAU). We should also emphasize that none of the above-mentioned Regulations specifies the legal unit *per se* as the required statistical unit. The legal unit becomes mandatory only when the statistical authorities take the view that the enterprise or KAU are each reduced to the legal unit—an approach that France generally adopts to comply with the letter of the Regulations.

The inclusion of EGs should not generate inconsistency in the statistical system. On the contrary, it should promote greater coherence thanks to a definition of the enterprise, as basic statistical unit, more deeply rooted in economic aspects than in legal aspects.

#### 11.1 Dual use of business statistics

Business statistics, whether structural or sub-annual, have two uses:

- (1) A direct use, in that the information delivered aims to provide a direct response to clearly identified needs without additional processing. The “whereas” sections of the two main EU Regulations on business statistics (SBS and STS) clearly articulate these needs: business decision-making, economic convergence, providing enterprises and their associations with information on their markets, competitiveness and performance of enterprises, monetary policy, European Central Bank, and so on.
- (2) An indirect use, as the information supplied by business statistics serves to prepare the national accounts<sup>134</sup>. Structural statistics are chiefly used for the annual national accounts, in their semi-final and final versions. Sub-annual statistics, which also serve for the quarterly national accounts, are used to compile the provisional and semi-final annual national accounts.

<sup>132</sup> en français: groupes de société

<sup>133</sup> “Adopted by the Statistical Programme Committee on 24 February 2005 and promulgated in the Commission Recommendation of 25 February 2005 on the independence, integrity and accountability of the national and EU statistical authorities.”

<sup>134</sup> This purpose is, in fact, explicitly mentioned in the “whereas” sections of the SBS and STS Regulations.

This dual use generates partly contradictory requirements and constraints. These are reflected in the partial inconsistency between ESA standards and the SBS-STs Regulations, particularly concerning units of analysis (see below).

If, as our report recommends, the French system of business statistics were to abandon its exclusive observation of legal units (here, legally defined firms), it may need to supply additional information to the national-accounting system.

## 11.2 Need for internal consistency in structural statistics

The main structural statistics are compiled from tax data and a range of surveys. These include: Annual Enterprise Surveys (EAEs), which provide the main data on the structure of activity sectors (and fall within the scope of the EU's SBS Regulation); annual production surveys (or annual "branch" surveys, prescribed by the EU's Prodcom<sup>135</sup> Regulation); and thematic surveys, periodic or *ad hoc*, supported or not by an EU statistical regulation (surveys on innovation<sup>136</sup>, research, information and communication technologies, and so on).

All the statistics compiled from these different sources should be consistent with one another, as users may want to compare one aggregate from a given survey with another aggregate obtained through another process—for example, to calculate sectoral ratios of R&D expenditures to value added. For such ratios to remain relevant, their numerators and denominators must refer to the same population; the simplest and surest way to ensure this is for the populations concerned (i.e., in the activity sectors studied) to consist of the same individual units.

Accordingly, the EG dimension should be taken into account in the same manner for all structural business statistics including both the units defined by profiling (the intermediate statistical units [ISUs]: see §6) and the units comprising an entire EG (OSU), in regard to their French truncation in both cases (TrISUs and TrOSUs).

Whatever the source or application, these units are intended to replace "subsidiary" legal units in structural statistics. The future arrangement should also allow the local statistical units (see §11.6.1) corresponding to these new units to be used in structural surveys that require examination at a more detailed level of the enterprise (for example, surveys on retail outlets, waste monitoring, organizational changes or IT infrastructure). We would thus preserve a detailed local level of survey-based collection, whose relevance should increase (see §11.6.1).

It is therefore essential to take the full spectrum of structural-statistics needs into account—in particular, the satisfaction of those described above—when introducing the new statistical units and especially when profiling large EGs.

## 11.3 Sub-annual statistics may become more consistent with structural statistics

The goals of sub-annual (short-term) statistics are different in nature from those of structural statistics. Their main purpose is to record economic changes very rapidly. The EU's STS Regulation organizes the monthly and quarterly production of indices and statistics. Some countries calculate other short-term indicators. For example, France computes inventory indices.

But beyond providing timely information on changing economic conditions, sub-annual statistics should be usable as an early measurement of annual changes in the economy's main characteristics. In other words, the full set of changes observed over 12 months should enable users to form reasonable expectations<sup>137</sup> about the trend that structural statistics will confirm several months later. Aiming for this objective would enhance the overall usefulness and the credibility of business statistics. Sub-annual statistics could play this "predictive" role with respect to structural statistics far more effectively if the concepts used are the same. This applies to the definition not only of the variable

<sup>135</sup> for "Production Commercialisée", i.e., Sold Production.

<sup>136</sup> Community Innovation Surveys: CISs.

<sup>137</sup> For various reasons, the expectations can be only "reasonable": the samples used in sub-annual statistics are often significantly smaller than those used in annual statistics, some events (particularly legal restructuring) can be processed properly only "after the fact", and so on.

observed<sup>138</sup>, but also of the observation unit. The notion of sector turnover, for example, remains very ambiguous if the unit concerned is not specified<sup>139</sup>. The choice of observation unit is also decisive for all sector statistics. As a sector, by construction, groups together all the statistical units engaged in the same principal activity, a change of statistical unit entails a *de facto* redefinition of the sector.

Similar conclusions could apply to short-term statistics as well. True, they serve to prepare an “overall” forecast that provides a broad scenario, not to predict the value of a specific economic aggregate. But the more thoroughly one could eliminate the causes of a mismatch between this forecast and the future outcome (a mismatch inherent in the preparation process), the better the quality of the forecast. It therefore seems desirable to ensure that short-term statistics observe the same population, defined in the same manner as the other business statistics.

#### **11.4 New statistical units for the entire system of business statistics**

In conclusion, it seems possible to aim at a reasonable consistency between sub-annual sector statistics and indicators on the one hand, and the corresponding structural characteristics of sectors on the other. Such an objective would be all the easier to attain by observing the same populations, identically defined. The common unit should be the truncated intermediate statistical unit (TrISU). We shall thus need to find appropriate solutions for annual and sub-annual statistics compiled—in whole or in part—from administrative sources. The simplicity of these solutions depends on the type of variable considered.

If the variable (or set of variables) considered is “directly” additive, if its value obtained in a consolidation process equalled the simple sum of the values for the consolidated units (salaried employees, for example), then the use of the administrative source for this TrISU unit would require only a preliminary summation.

If the variable (or set of variables) considered is not directly additive, we could implement two alternative solutions, depending on the TrISU's weight in its sector (see §8.5.2):

- either the statistical office consolidates the administrative data using “consolidation keys” obtained elsewhere;
- or the office will ask the new TrISU to perform the consolidation itself; in this case the administrative source will not be used.

Observing this TrISU does not, therefore, entail the abandonment of administrative sources, except for a few units and indicators.

#### **11.5 Business statistics and national accounts: what needs and what potential for consistency?**

The official statistical system forms a continuum in which the national accounts represent the ultimate synthesis. Users, particularly in their statements to the Working Group, are concerned about preserving the system's overall consistency. Any changes in business statistics therefore raise the issue of their possible impact on that coherence.

Until now, there has been a compromise consisting in the choice of the legal unit as the main, if not quasi-exclusive (see below) statistical unit. Given the circumstances outlined above, it would be desirable to reassert that compromise in terms of the new statistical units—mainly the truncated intermediate statistical units, since, by definition, the national accounts must record “resident” economic activity: the observation of TrISUs is therefore unavoidable.

##### **11.5.1 An inconsistent international standardization system**

The United Nations System of National Accounts (SNA), on which the European System of Accounts (ESA) is based, defines the unit of analysis of production<sup>140</sup> as the local kind-of-activity unit (LKAU),

<sup>138</sup> At the European level, the variables common to the two major regulations, SBS and STS, have the same definitions.

<sup>139</sup> Consolidated turnover generally differs from the sum of turnover figures for consolidated units.

<sup>140</sup> More specifically, for the production and generation-of-income accounts.

i.e., the segmentation of each local unit (establishment) into the different activities performed there<sup>141,142</sup>. Yet, for the two major EU Regulations on business statistics—SBS for structural statistics and STS for short-term statistics—the recommended statistical unit is mainly the enterprise and in certain cases the kind-of-activity unit (KAU), particularly in the manufacturing and construction industries for the STS Regulation.

In other words, the regulations themselves—for business statistics on the one hand and national accounting on the other—display a certain inconsistency. This is notably due to the differences in recommended units of analysis for production (in the broad sense, i.e., up to gross operating surplus [GOS]): enterprise, KAU, and LKAU in particular.

The current choice of basing the statistical system on the legal unit may be viewed as a compromise between these contradictory requirements.

Beyond international recommendations and owing to specific features of the French system for statistical observation of producers, the French national accounts use a segmentation of institutional units slightly different from the one recommended by ESA 1995. The French segmentation is based on the notion of “homogeneous unit of production” (*unité de production homogène*: UPH). The UPH is a unit that supplies only a single product; moreover, its definition disregards the local dimension. As a rule, its data are not directly observable, so they must be constructed from data on the institutional units on which the UPH depends. UPHs are grouped together into “homogeneous branches” (*branches homogènes*)<sup>143</sup>.

### 11.5.2 Specific demands and requirements of national accounts

The existing compromise outlined in §11.5.1 also has its drawbacks: some ancillary units<sup>144</sup> are classified artificially in a separate activity sector, whereas they should be classified in the sector of the enterprise that they serve. The adoption of the intermediate statistical unit (ISU), as recommended in Chapter 6, would solve these problems.

As recalled in §11.5.1, the production and generation-of-income accounts in the national accounts do not describe activity sectors but branches of activity, which constitute far more homogeneous economic entities. As business statistics are mainly compiled by sector<sup>145</sup>, national accounting should, before any other processing operation, convert sector data into branch data, a procedure known as “sector-to-branch conversion” (*passage secteurs branches*).

The first priority in preparing the national accounts is thus to make sure that events such as legal restructurings and mergers & acquisitions do not disrupt the sector-to-branch conversion even as the statistical-production processes stayed unchanged. Would the switch from the observation of legal units to that of TrISUs in business statistics cause such disruptions more frequently than today? The risk seems unlikely in practice, as the instability that we may observe for EGs primarily concerns their overall scope. However, our initial tests suggest that the scope of operating divisions is not much more

<sup>141</sup> The flows between these different LKAUs (therefore including intra-firm and also intra-group flows) are deemed to be recorded in the national accounts, which follow international standards. The corresponding flows are deemed to be valued at market prices or, failing that, at their production cost.

<sup>142</sup> For the overall economic table (*tableau économique d'ensemble*: TEE), the statistical unit is the institutional unit, which, for the “non-financial enterprises” institutional sector, consists of the enterprise (EU Regulation on Statistical Units).

<sup>143</sup> Source: [http://www.insee.fr/fr/indicateur/cnat\\_annu/base\\_2000/biens\\_services/ex/prod\\_conso\\_int\\_ex.htm](http://www.insee.fr/fr/indicateur/cnat_annu/base_2000/biens_services/ex/prod_conso_int_ex.htm) (INSEE website, explanatory notes on annual national accounts [in French]).

<sup>144</sup> Ancillary units deliver only ancillary services, which should not be recorded in the accounts as such. The SNA recommends, in particular, that subsidiary entities entirely engaged in ancillary activities for the group should be merged with the parent company.

<sup>145</sup> By definition, a sector aggregates all firms engaged in the same principal activity. Consequently, a firm contributes, through its characteristics (turnover, employment, investment, production, etc.), only to the sector in which it conducts its principal activity, regardless of the size of its secondary activities. All of its turnover, workforce, etc. is assigned to a single sector. This sectoral approach to economic activity is basically due to the fact that a firm’s information system is comprehensive, i.e., in supplying information needed for statistical purposes, it does not distinguish between the firm’s different activities (or if it does, it does so poorly).

unstable than the scope of firms undergoing legal restructuring. But further studies will be needed to provide final confirmation on this point.

Secondly, the need most strongly expressed by national accountants—which contradicts, or at least seems to contradict, the changes in statistical units defended in this report—is to be able to measure flows by product, at the most detailed and/or the purest level. Any consolidation, insofar as it can degrade measurement “purity”<sup>146</sup>, may disrupt the preparation of national accounts.

Lastly, whatever the additional information that business statistics should supply for the preparation of national accounts and whatever the additional processing operations that may be required (see §11.5.3), we must emphasize that these operations should, in principle, concern both sub-annual and structural statistics, and should be based on long-term series. The reason is the need to preserve the consistency of the national-accounts sequence (quarterly, provisional annual, semi-final annual, and final annual), which draws on the different statistics.

### **11.5.3 A possible new compromise**

Just as the choice of the legal unit was a good compromise between older divergent requirements in business statistics and national accounting, a new compromise should be offered that could satisfy today’s main demands.

It is hard to imagine that the system of business statistics will not eventually incorporate the group dimension into its production process by adopting the new ISUs and OSUs (and their territorial versions); if not, it risks a significant loss of relevance. But the change will require the system to provide additional information for the national accounts, or to perform additional processing. This information and these processing operations mainly concern production and intermediate consumption in the context of the “input/output” approach in national accounting.

As discussed in §11.5.2, the implementation of new statistical units can improve the national accounts in certain ways. The area where the information loss may be perceived as the most detrimental to the national accounts is the consolidation of intra-unit flows (here: flows between truncated intermediate statistical units [TrISUs]).

A possible solution may consist in measuring these intra-unit flows—in an appropriate form and, ideally, on an multi-year basis—for the variables regarded as most significant. In the interval between measurements, the flows would be estimated. Moreover, these needs, voiced by national accountants, could be reconciled with the demand for more detailed analysis of production in certain sectors, particularly industrial sectors.

Symmetrically, the national accounts may be enhanced by a distinction between “market” flows and intra-unit flows (for the key variable). In so doing, users would have at their disposal a set of relatively consistent information across the various stages of observation and measurement of the same economic phenomena.

## **11.6 Statistical representations of the French economy, at the local, national, and international levels, and their consistency requirements**

A major priority for official statistics is to supply consistent inputs for the debate between economic actors. The inputs can be local, national, and international.

The definition of new statistical observation units must not alter the information made available to users.

### **11.6.1 Local statistics**

Local economic actors are now focused on the issues of territorial attractiveness, economic change, and business relocations. To address these concerns, official statistics rely on local units (establishments), which are geographic segmentations of legally defined firms.

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<sup>146</sup> The processes at work in a consolidated unit are certainly less homogeneous than those occurring in the firms subject to consolidation.

At present, the main information available on local units with a good degree of reliability—in addition to their principal activity—covers their workforce and related variables; in some cases, there is also reliable data on fixed assets and tangible investment. By contrast, no information on local units' production or intermediate consumption is easily available, which prevents a direct calculation of value added by local units. However, we can compile regional accounts—the regional equivalent of national accounts—by estimating the activity of local units through a breakdown of the enterprise's total activity.

The introduction of an overall statistical unit (OSU) or intermediate statistical unit (ISU)—whether corresponding to a legally defined firm, an EG or an operating division—will be accompanied by the introduction of a local version of the unit. This is the same procedure currently applied to firms.

This local statistical unit will consist of the following, depending on the circumstances:

- a local unit of a legally defined firm, when the OSU (ISU) is legally defined firm
- the set of local units of legally defined firms (or, as a special case, the grouping of local units when several are located at the same address), when the OSU or ISU comprises several firms.

Concerning the “special case” in the second alternative, we should emphasize that this could mark a major improvement on the current situation, where EGs sometimes set up local units (“establishments” as defined in the SIRENE business register) that have no economic reality. This is especially the case when a single firm in an EG manages the group's entire workforce and “lends” it to the group's production firms. To simplify administrative reporting, one solution that may be in the group's interest would be for it to “double up” (administratively speaking) each production-dedicated local unit with a local unit of the “workforce-lending” firm. Two local units of two different firms in the same group will thus be recorded at the same address. The introduction of a local statistical unit—a sub-entity of the ISU or OSU located at a particular address—will solve the problem *de facto*, as the OSU or ISU will thus comprise these different firms.

In any event, these new local units would be assigned principal activity codes, as is done today with local units of legally defined firms.

Introducing new statistical units in EGs will obviously not reduce the number of different addresses where the EG conducts its activity; in some cases, the change will even entail a fortunate simplification.

Local statistical units will therefore produce a level of information identical to that offered by the current use of local units (establishments).

The sector breakdown of the economic activity of local units may, however, be modified by the process of determining the principal activity of the local statistical unit. The same is true of the breakdown by activity of the French production system as a whole. But our simulations show that this impact of the inclusion of EGs in business statistics would be modest (see §10.4).

### 11.6.2 Foreign locations and FATS statistics

The EU's need for information on units located abroad is expressed in the draft regulation on FATS (Foreign Affiliates Statistics). This concerns the activity of affiliates of foreign EGs in France (Inward FATS) and the activity of affiliates of French EGs abroad (Outward FATS).

In regard to the activity of foreign units in France (French affiliates of foreign EGs), the basic unit should be the new truncated intermediate statistical unit (TrISU), as the statistics chiefly concern the “real” economic sphere. The consistency of these Inward FATS with statistics on total economic activity performed on the national territory will therefore be ensured by construction.

In respect of the activity of French EG affiliates abroad (Outward FATS), the same logic should apply. Like Inward FATS, Outward FATS reflect the “real” economy, so the TrISU is the most appropriate unit. But the difference here—and it is an important one—is that the TrISUs to be tracked are those representing units of French EGs located abroad. The notion of “truncation” should therefore apply to the geographic areas whose breakdown will be required in the future FATS regulation.

This will yield a substantial improvement on the Outward FATS that would be obtained by using “foreign legal units”<sup>147</sup> of French EGs. As mentioned in Chapter 6, the units (OSUs and ISUs) must first be defined at the level of the entire group before determining any territorial truncations that may be needed (TrOSUs and TrISUs).

In the process, the Outward FATS could provide consistent and therefore directly usable complement to statistics describing the resident economy alone (provided that the principal activity of the truncated units is defined as identical to that of the non-truncated unit to which they belong<sup>148</sup>). These Outward FATS would reflect the non-resident part of the resident activity of the same enterprises, classified in the same sector.

When used in conjunction with Inward FATS, Outward FATS should make it possible to describe a economic activity in terms of a control-based approach (here: French control), as a complement to the traditional territory-based approach (here: French territory).

If a French marketing affiliate of a foreign industrial EG is only a TrOSU<sup>149</sup>, we could define its principal activity as that of the EG (in this example, therefore, the activity would be industrial). This approach does not exclude the assignment of a “second” principal activity code (APE), describing its “own-account” activity, i.e., if we regard the affiliate as an autonomous enterprise (here: a sales/marketing entity). The analogy with the principal activity of a local unit (establishment) versus the principal activity of its enterprise—as managed in the current statistical system—is totally valid. We can compile sector statistics for local units on the basis of the local units’ activity codes or on the basis of their enterprises’ codes. Both statistics can be useful, depending on the variables examined or the needs expressed.

### 11.7 Need for a statistical register to ensure consistency between sources

Once we cease to define statistical populations as mere lists of legal units, the exclusive use of the inter-departmental SIRENE register is no longer sufficient for managing statistical applications, regardless of whether they rely chiefly on administrative sources or on statistical sources.

The reason is that these new statistical units (OSUs, ISUs), defined for statistical purposes, cannot be recorded or updated (as regards their main characteristics) in the SIRENE register<sup>150</sup>.

At the same time, such new units cannot be used properly, even for a single application, if they are not recorded, provided with an identifier, and updated regularly. Updates must go beyond basic characteristics such as size, principal activity, and secondary activities. Most important, definitions of unit scope will need to be updated regularly<sup>151</sup>. Such changes in scope will raise the issue of managing the continuity of these “enterprise” units and, consequently, of whether their identifier remains valid or needs to be revised once statisticians conclude that the break in continuity outweighs the continuity<sup>152</sup>.

We therefore believe that a statistical register—i.e., dedicated exclusively to the needs of business statistics—should complement the current SIRENE register without unnecessary redundancy.

<sup>147</sup> This is obviously a very blurred concept, as it depends on legal arrangements in the foreign countries.

<sup>148</sup> The use of such an activity code would not preclude the use of another code for different purposes, which would take into account the activity performed by the “truncated” unit only. This distinction is analogous to the one in the present system between the activity code of a local unit (APET) and that of its enterprise.

<sup>149</sup> The same reasoning would apply if this affiliate defined a TrISU: the APE in question would then be that of its corresponding ISU.

<sup>150</sup> We are referring here to its “inter-departmental” component (i.e., a database common to all government departments).

<sup>151</sup> Scopes may change in two ways: (1) entry/exit of a legal unit due to the EG’s internal reorganization or (2) change in the scope of the EG itself or legal restructuring of a legal unit entering the scope in question.

<sup>152</sup> For several years, INSEE has been examining the management of EG continuity, i.e., on what evidence should we assume that an EG survives until the following year or that, on the contrary, it has ceased to exist and has given birth—alone or with other units—to a new group? These investigations could be easily resumed, as the issue to be settled is very similar.

Because of the fragmentation of France's official statistical system between INSEE and the "ministerial statistical offices",<sup>153</sup> such a register should be available to all of its players. This is a prerequisite for consistency among the main statistics, as discussed earlier.

Moreover, the correspondence between the new statistical units and legal units must be managed on a continuous basis for two critical reasons:

The exhaustive information on legal units achieved by administering their identification is what ensures that the French statistical system can describe the entire "economic" population without omission or double counting. Thus, to guarantee that the (statistical) data repository of statistical units is complete without double counting, the legal units constituting the new statistical units (enterprises) must be "removed" from the repository as the new units are added to it.

But it is just as essential to make sure that a given legal unit is used to define only a single statistical unit of the ISU or OSU kind.

The population of legal units in the SIRENE inter-departmental register must therefore serve as the reference for defining the new statistical repository.

Lastly, in order to continue using administrative sources, including for the new units (or at least a proportion of them: see §11.4), statisticians must have at their continuous disposal the correspondence between the new units and the legal units that compose them. In addition to this correspondence, a statistical register will, no doubt, need to record the consolidation "keys" between the legal units belonging to the same unit (TrISU or TrOSU), for each of the main variables such as purchases, turnover, and production (see §11.4).

Besides the recording, identification, definition, and updating of the new "enterprise" units, the statistical register will also need to manage the basic concept of "group of firms". It will need to include their scopes, in terms of enterprises and therefore in terms of legal units (here: firms), as well as their key characteristics including principal activity, secondary activities, size (in France and abroad), countries where foreign facilities are located, group-head location, and so on.

The statistical register will have to manage the new units' local statistical units, the groups themselves, and networks.

### **11.8 Conclusion: consistency requirements can continue to be met**

In the sphere of business statistics, we can achieve a good consistency between the statistics, whether they are annual or sub-annual, provided that the same statistical units are used. This condition requires the development of a statistical register that is available to the entire official statistical system and allows the management of common data repositories, without omissions or double counting.

This consistency goal does not call into question the use of administrative sources for both annual and sub-annual statistics.

Regarding national accounts, the Working Group has found that the system of business statistics will have to provide supplementary information or perform additional processing operations to ensure that the national accounts meet international standards. The magnitude of the task appears to be reasonable.

Lastly, it is important to stress that the divergences in international standards between business statistics and national accounts are concentrated on the production and generation-of-income accounts.

As regards the institutional-sector accounts, several Working Group participants noted that the definition of an "enterprise" unit, being more relevant for economic analysis, should represent a major

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<sup>153</sup> Services Statistiques Ministériels: SSMs.

improvement by sharply reducing the discrepancy between messages delivered by the national accounts and those conveyed elsewhere<sup>154</sup>.

## **12 Inter-temporal and international comparability**

One of the recurrent demands of users is for long-term statistical series. Structural statistics should be comparable from year to year, just as sub-annual statistics should be from one month or quarter to another.

The demand for international comparability, particularly in the European Union, reflects a similar concern: the ability to compare French statistics with equivalent figures for other Member States and beyond.

The change in statistical unit proposed in previous chapters will cause a break in the statistical series.

This raises the question of their comparability over time. What kinds of solutions can be provided? Regarding international comparability, the question is rather different: will the change of unit improve or lessen comparability in the EU?

### **12.1 Inter-temporal comparability**

The issue of inter-temporal comparability raises the possibility of back-casting the main statistical series if the introduction of new statistical units causes major breaks in the series.

A thorough preliminary study is needed to measure the exact scale of the breaks. Their magnitude will clearly differ according to the variable examined and the level of aggregation in the classification chosen by the user.

#### **12.1.1 Different impact for each variable and classification level**

Regarding variables, the breaks will be all the sharper as the consolidation procedures (in an operating segment or EG) will not be “neutral”. For many variables, consolidation merely consists in summing the characteristics of consolidated units, such as workforce or value added. In other cases—particularly purchases, production, and turnover—consolidation has a reducing effect by eliminating internal flows in the operating segment or EG.

When consolidation is “neutral” with respect to the variable, the series breaks will be solely due to changes in sector classification. As all consolidated units do not necessarily belong to the same economic sector, the effect of consolidation will be to assemble activities previously scattered across several sectors into a single sector. The level of the classification at which the user examines the data will be decisive. The higher the level, the less significant the series break.

When consolidation has a specific, value-reducing effect of its own, it will compound the sector effect described above.

Series breaks should be minor at the aggregate sector level measured in the national accounts (see Chapter 10). The more detailed the target sector level, the sharper the potential break, but this difficulty is already present when comparing sector statistics on subpopulations affected by demographic phenomena such as restructuring. The analysis of shifts between  $n-1$  and  $n$  should accordingly take account of a new component reflecting changes due to the use of the new statistical units, particularly as a result of profiling operations. By way of compensation, proper profiling may reduce the component that measures restructuring operations, which often occur within an EG or subgroup.

#### **12.1.2 Linking coefficients?**

Another important parameter should be considered: the pace of introduction of the new statistical units. Most would be introduced in the wake of profiling operations. These require such resources that

<sup>154</sup> Particularly as regards the financial account, the balance sheet, and the capital account.

a strategy of very gradual introduction of the units, over a relatively long period, may be preferable to a more massive introduction<sup>155</sup>. If the introduction is fairly gradual, the issue of back-casting persists but in slightly different terms. We could envisage the use of  $n/n-1$  linking coefficients, along the lines of current procedures for legal restructuring. In formal terms, a legal restructuring and a redefinition of an enterprise unit through profiling pose the same problems with regard to series breaks<sup>156</sup>.

One thing is certain, however: a long-term back-casting of the main statistics is not a viable option. To be reliable, it would require asking the EGs in which new “enterprise” units were defined through subconsolidations to provide these subconsolidations for earlier years—a totally unfeasible operation! We must therefore propose other solutions that will satisfy user demand for relatively long series.

### 12.1.3 Back-casting and/or double series?

In expressing their needs, users emphasized long-term series over back-casting. We could thus explore other solutions besides back-casting.

For the characteristics that users regard as most important, it might be easier to continue the old series for as long as the time-span of the new ones was deemed insufficient. By construction, administrative sources are based on current statistical units; the contribution of these sources, at a relatively low cost, could allow such an extension while ensuring a quality level that users would consider adequate. We could resort to estimation procedures for variables not available in administrative sources.

The effects of the changes in sector classification mentioned above (§12.1.1) would be easy to handle, while consolidation effects could be readily eliminated by using individual (non-consolidated) tax data, on which the consolidation effects are strongest<sup>157</sup>.

A “dual series” arrangement of this kind would have to be very limited, however, otherwise the resulting confusion could outweigh the expected benefits. It should involve only a few series regarded as essential, and only at truly useful levels of aggregation. And it should remain strictly limited in time, for example to the interval between national-account base years.

As an initial conclusion, we can see that (1) the impact at the aggregate level would be weak and (2) several solutions, such as linking coefficients and transitional dual series, are feasible depending on user needs. The legitimate question of how to preserve continuity in the main series therefore seems open to a reasonable solution at an acceptable cost.

## 12.2 International comparability

CNIS participants consistently voice a demand for international comparability, particularly at the EU level. The monitoring of French economic activity loses much of its value if it is not conducted in an international perspective.

The only aspect we shall examine here is comparability in the EU. The national statistical systems are fairly similar for historical reasons, and the construction of the EU’s own statistical system has provided a strong incentive to their convergence. Despite these very favourable features, we shall see that assessing comparability even within the EU is not an easy task. To discuss comparability with U.S. or Japanese statistics would require very thorough investigations, which lay outside our Working Group’s remit. As emphasized below, if we want to discuss comparability seriously, we must take special care to avoid dwelling on the terms used, which tend to be misnomers (*faux-amis*) more than anything else.

<sup>155</sup> Although we should note the obvious advantages of concentrating new-unit introductions in a fairly short period.

<sup>156</sup> It should be recalled that, in France, the first introduction of an enterprise redefined by profiling constituted the statistical system’s response to a very extensive legal restructuring that was totally internal to a particular EG, had no economic implications whatever, but generated major effects on statistical series.

<sup>157</sup> The non-consolidated accounts of these firms—the components of the new units—would still require some processing, however minimal.

From the outset, the construction of a European statistical system has aimed at comparability, whether to compare the performance of EU economies or, more simply, to prepare reliable EU statistics. The aggregation of national data does not truly make sense unless the data are consistent with one another.

To reach that comparability, the EU has resorted to Regulations that have introduced a common statistical infrastructure comprising classifications, registers, and statistical units.

For the purposes of our report, the most important initiative is obviously the Regulation on Statistical Units.

### 12.2.1 Statistical definition of the “enterprise” statistical unit at EU level

Council Regulation (EEC) No. 696/93 of 15 March 1993 defines the enterprise as follows:

*“The enterprise is the smallest combination of legal units that is an organizational unit producing goods or services, which benefits from a certain degree of autonomy in decision-making, especially for the allocation of its current resources. An enterprise carries out one or more activities at one or more locations. An enterprise may be a sole legal unit.”*

*Explanatory note*

*The enterprise thus defined is an economic entity which can therefore, under certain circumstances, correspond to a grouping of several legal units. Some legal units, in fact, perform activities exclusively for other legal units and their existence can only be explained by administrative factors (e. g. tax reasons), without them being of any economic significance. A large proportion of the legal units with no persons employed also belongs to this category. In many cases, the activities of these legal units should be seen as ancillary activities of the parent legal unit they serve, to which they belong and to which they must be attached to form an enterprise used for economic analysis.”*

This definition calls for several comments:

- It draws a clear distinction between the enterprise and the legal unit (we should also note that no EU operating regulation mentions the legal unit as statistical unit).
- The definition effectively views the enterprise as an economic entity and in no way as a legal entity.
- The definition treats autonomy in decision-making as inherent in the notion of enterprise, as it is the only criterion specifically mentioned.

The definition may seem minimalist. In fact, it is the outcome of the many debates that took place on the subject between EU statisticians in the early 1990s. To go beyond a handful of economic criteria is very difficult precisely because of the differences in administrative, legal, and other realities between Member States.

Tax law, labour law, and competition law—which differ from one Member State to another—have a decisive impact on the legal organization of economic activity. A given legislative provision will incite an enterprise to split into several firms or, on the contrary, to combine them, or to assign its activities to separate firms, and so on. A good way to transcend these differences therefore consisted in emphasizing an economic approach to the enterprise at the EU level, at the expense of a legal approach.

### 12.2.2 European Task Force on Statistical Units (2000-2001)

Eurostat was aware of Member States’ difficulties in complying with the main provisions of the EU Regulation on Statistical Units. It also saw that the statistical units used by each country had a significant impact on the quality of aggregate EU statistics. In 2000, Eurostat therefore launched a Task Force on “Statistical Units by Industry in the Domain of Production”, with the participation of nearly all Member States. Its main findings were submitted to the annual meeting of the Business Statistics Directors Group (BSDG) of 21 June 2001.

The Task Force emphasized the following priorities<sup>158</sup>:

- Promote economic relevance
- Aim for sector homogeneity at the three-digit classification level
- Address the need for consistency between annual and sub-annual statistics (SBS and STS).
- Regarding economic relevance, the main points examined were: ancillary units, units unrelated to the market, the valuation of certain flows at non-market prices, and the segmentation of factors of production. In consequence, with regard to EGs, the “enterprise” as statistical unit consisted of the entire group or a part of it.

At the time, the goal of sector homogeneity was confined to the three-digit level of the classification. This mainly reflected a concern to avoid putting excessive pressure on Member States, although the report did note that a good EU comparability at this classification level would already constitute major progress.

The report heavily underscored the need for consistency between annual and sub-annual data, which many Member States viewed as essential.

We should note that the Task Force conclusions mentioned Dutch and British practices as offering the most fruitful lessons for developing statistical units that could reflect the state of economic activity and foster comparability between EU countries.

The proceedings of the CNIS Working Group presented in this report are in fact an extension of the work carried out by the Eurostat Task Force.

### 12.2.3 Increasing coverage of EGs at EU level

In the past several years, the EU’s analysis of EGs has intensified, leading to three major initiatives: (1) the drafting of a new regulation on business registers, (2) the formation of a Task Force on a planned “Euro-Groups Register”, and (3) a pilot project on multinational enterprises.

A new regulation on business registers is being adopted. The main difference with the previous register is the coverage of EGs. If a legal unit or an enterprise belongs to an EG, the fact will have to be recorded, together with the EG’s basic characteristics. But the register will record EGs as well, and therefore assign them identification numbers.

A Task Force on a “Euro-Groups Register” project—connected with the first initiative—is being established. The project is very ambitious, as the goal is to design a single EU register of groups available to all EU national statistical institutes (NSIs) and updated by the NSIs themselves. The French experience in this field is being closely examined<sup>159</sup>. One of the major priorities is to tap expertise on private databases for possible future use, particularly for initializing the first version of such a register.

For the Multinational Enterprises (MNE) project, several European NSIs (Italy, United Kingdom, Netherlands, and France) are working with Statistics Canada, which launched the initiative. The goal was to explore the possibilities for gathering information on MNEs’ global activities, ways to manage the confidentiality of such information, the scope for exchanging the data between INSs with the enterprise’s consent, and so on.

These three initiatives illustrate the importance that EGs have acquired in the EU’s development of business statistics. There is hardly any meeting of the Structural Business Statistics (SBS) Steering Group or Business Statistics Directors Group (BSDG) whose agenda does not include an update on EGs.

### 12.2.4 Varied statistical practices in the EU

<sup>158</sup> See preparatory document for June 2001 BSDG, Doc. BSDG/June/201/6.

<sup>159</sup> The French annual database on groups (IT application and “Financial Links” [LIFI] survey) has been in existence for more than 25 years.

While practices vary among Member States as to the definition of the “enterprise” statistical unit used, we should emphasize that the “legal unit = enterprise” equation is by far the dominant choice.

Only the United Kingdom and the Netherlands, and to a lesser extent Sweden, define their “enterprise” statistical units on the basis of EGs. Other countries have begun reviews along the lines of France’s current examination of the issue and are, in any event, attentive to the French findings.

#### **12.2.4.1 United Kingdom**

The U.K. approach closely resembles the one recommended in our report. The Office of National Statistics (ONS) defines three alternatives:

Each legal unit (subsidiary) is sufficiently autonomous and can be regarded as an enterprise (“separate business”).

True autonomy is at the subgroup level, so each subgroup constitutes an enterprise.

The group’s operating structure is totally unrelated to its legal structure, in which case the entire group constitutes a single “enterprise” unit.

The ONS relies heavily on the range of activities carried out by the group (“activities” in the statistical-classification sense) in deciding whether or not to define separate businesses in the group. One exception to this rule concerns groups that are homogeneous in terms of activities (under NACE criteria) but, for the sake of convenience, wish to submit their questionnaire responses by group subdivision.

All U.K. business statistics are prepared on the basis of the units described above, including those used as inputs in national accounting.

The definition of enterprises within EGs is obtained by profiling. The goal is to determine the groups’ operating and accounting entities, from which the “enterprise” units are deduced. British statisticians believe that such processes minimize the response burden and improve survey response rates and, more generally, the quality of surveys. Before all profiling operations, each subsidiary is regarded as defining a separate enterprise unit.

Profiling is, however, reserved for larger groups<sup>160</sup>. The smallest are analyzed by means of specific surveys. Today, some 570 enterprise units have been defined via relatively complex profiling operations<sup>161</sup>. The main criterion for selecting units for profiling is size: units with more than 2,000 employees and those in which at least one secondary activity occupies over 125 employees.

#### **12.2.4.2 Netherlands**

The Netherlands’ approach to statistical units is totally different from that of France. Many administrative and accounting requirements concern EGs themselves to begin with. The issue in Dutch business statistics thus tends to be deconsolidation rather than consolidation.

The central unit in the Dutch system of business statistics is the enterprise group (EG). The smallest EGs are treated as enterprises, while the others are profiled to define the enterprise units inside them.

#### **12.2.4.3 Sweden**

The situation seems more ambiguous in Sweden. Enterprises and legal units are usually treated as equivalent except for the largest entities, for which the EG is defined as the statistical unit. In that

<sup>160</sup> In 2005, the profiling team comprised, in addition to its manager, six profilers (including two part-time) and three assistants (including two part-time). The ONS estimates that the cost of profiling represents 13% of the total budget for business-register operations.

<sup>161</sup> We obtained a similar figure from a very rapid enumeration, in France, of EG operating segments listed in the groups’ annual reports.

case, Swedish statisticians will seek to obtain information only on the part of the EG operating on Swedish territory (geographic truncation).

We should add that Sweden offers the most advanced example in the EU of regular publications on the degree of globalization of a national economy, particularly through statistics on the activity of Swedish EGs abroad.

#### **12.2.4.4 Germany**

The German situation provides a rather good illustration of the discussions under way at national statistical institutes regarding the changes to promote in the years ahead.

In its choice of observation units, the German system of business statistics is fairly similar to the current French system, with the legal unit representing the “traditional” definition of the enterprise<sup>162</sup>.

The local unit and local kind-of-activity unit (LKAU) also play a major role in Germany owing to the demand for regional information from the Länder—a consequence of the federal system.

Yet there is a full awareness of the economic reality of EGs. For the past several years, at the strong instigation of the German Monopoly Commission, the German statistical office has been publishing biennial statistics on sectoral concentration (in manufacturing and construction) compiled on an EG basis: two firms belonging to the same group and engaged in the same economic sector are treated as a single economic entity in the sector. The difficulties encountered by German statisticians concern the identification of EGs themselves, which is mainly achieved by drawing on private sources.

Germany launched a “Business Statistics Reform” project some time ago, one of whose major themes is the determination of the most relevant statistical unit—including the EG as such. A joint Working Group comprising the Länder and the federal government has been set up. In this context, German statisticians are very attentive to ongoing work on the subject in France.

Many other Member States are conducting in-depth examinations about the choice of the most relevant statistical unit. This is particularly the case among new EU members. Having often been obliged to redefine their entire statistical systems, they prefer to ensure that the systems are capable of addressing new issues today rather than tomorrow. This concern has been intensified by the relatively heavier impact of globalization—even confined to Europe—on their economies. As EGs are the prime vector of this phenomenon, their observation is often a prerequisite for measuring the degree of an economy’s globalization.

#### **12.2.4.5 Promotion of profiling by Eurostat**

For the past several years, Eurostat has sought to promote profiling as the most suitable method for defining enterprise units in EGs. This effort follows on the work done by the Task Force on Statistical Units in 2000 and 2001 (see §12.2.2).

Eurostat launched two major initiatives in 2005 and 2006 by organizing two workshop-seminars, one in Heerlen (Netherlands), the other in Rome. Both were attended by most European Union NSIs. The main goal was to share experiences in the field and organize initial exchanges to define rules—or at least guidelines—for EG profiling.

These initiatives have not yet led to concrete recommendations. But they speak for the importance that Eurostat and the Member States now attach to the proper enforcement of the Regulation on Statistical Units, particularly its “enterprise” component.

#### **12.2.5 The illusion of the legal unit**

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<sup>162</sup> According to our German colleagues, this approach does not comply with the definition of the enterprise unit in the EU Regulation on Statistical Units, and thus fails to meet the requirements of the Regulations on structural and sub-annual statistics (SBS and STS) regarding the choice of statistical unit of observation.

A common use of the legal unit as statistical unit by EU Member States is sometimes perceived as a guarantee of comparability for the resulting statistics.

Such a certainty obviously requires that the very notion of legal unit should correspond to the same economic reality in each EU country.

Why should that equivalence exist? The legal unit reflects a legal approach to the enterprise or to its structure. Thus the very fact that the law remains largely national in inspiration—particularly in spheres such as taxation, business, labour, and competition—is a reason to exercise great caution in asserting that the use of the legal unit guarantees comparability. Moreover, it is widely admitted that the legal structure of the economy may sometimes undergo rapid change—precisely to better adapt it to regulatory changes in whatever field. For example, the different accounting requirements that each Member State imposes on firms may prompt an enterprise to revamp its legal structure.

Vertical and horizontal integration in legally defined firms (as against enterprises) are crucial phenomena for determining the degree of comparability between national statistics. But when we examine the economy at legal-unit level, we have no way of establishing that these phenomena reach comparable intensity in the different EU economies. The reason is that the firm embodies a legal approach to the enterprise, whereas vertical or horizontal integration reflect economic choices. We are therefore faced with two different and not directly reconcilable levels.

Only an economic approach to the enterprise unit can ensure better comparability in the longer run.

#### **12.2.6 Only one lasting solution: the economic definition**

All the conclusions of EU studies on statistical units in recent years have stressed the limits of the legal unit as a means of accurately describing the economic activity of EGs. At the same time, a full implementation of the Regulation on Statistical Units—especially the definition of the enterprise—in each Member State is now perceived, at the EU level, as an effective way to improve the relevance of statistics and enhance comparability.

The profiling initiatives such as workshops and seminars bear abundant witness to this. Eurostat's emphasis on the need to take account of EGs, and particularly the economic reality they represent, points in the same direction.

If additional comparability is expected, it is indeed because the new statistical unit would rest primarily on an economic definition. The fact that the EU is, among other things, a single market tends to foster the emergence of economic actors who are effectively comparable because they operate in the same market. Such a definition—freed, at least in part, from national legal specificities—can only promote comparability between EU sector statistics.

France has accumulated an experience in EG identification thanks to a monitoring of financial links between firms (LIFI application) for over 20 years. This represents an unquestionable advantage in moving toward the adoption of an economic definition of the enterprise, notably through group profiling, as practised by our British and Dutch colleagues.

French statistics prepared on the basis of the new units proposed in this report would manifestly offer better comparability in the short run with those of the Netherlands and U.K., without our having to fear a uniform loss of comparability with those of other Member States.

Eurostat clearly favours the preparation of such statistics. By moving in that direction, the French statistical system would thus position itself in the vanguard of countries that could apply their practical experience to shaping recommendations on the implementation of profiling.

Lastly, defining the enterprise on a more economic basis (that encompasses the “group” concept) is surely the most robust and long-lasting solution for handling the inevitable but unpredictable future changes in the legal forms that underpin enterprise activities. This European evolution can only enhance the comparison with other developed countries.

## Part IV: general conclusion and recommendations

### 13 How should business statistics communicate tomorrow?

#### 13.1 The wide diversity of everyday designations of business players

Statisticians play their proper role when they are careful to designate with precision the statistical units they observe. By contrast, they cannot hope for the same semantic rigor on the part of even the most attentive users of their data.

A rapid survey of the French economic press<sup>163</sup> shows, for example, that the terms most often used by journalists are *entreprise* (enterprise), *société* (firm, company, corporation), *PME* (*petites et moyennes entreprises*: SMEs, small businesses), and *groupe* (group). But the content associated with each term can vary rather significantly with the topic discussed or the angle chosen. For instance, *groupe* is used to define the economic player in question as a structured, even complex, organization and to highlight its economic clout. It is generally associated with the group's name: "the LVMH group", "the ACCOR group", etc. Often used in headlines, it serves as the "hook" for the article. Sometimes *groupe* is used to refer to the fact that the entity is listed on the stock exchange. Nationality sometimes fleshes out the description: "the French group", "the foreign group", and so on.

French journalists very often use the term *entreprise*. It designates the business, sometimes in a historical perspective. It often serves to underscore the entrepreneurial dimension, the economic actor that does business deals, produces goods or services, or helps to grow the economy. It is sometimes replaced by the word *firme*.

Likewise, *société* (company) takes on a meaning close to that of *entreprise*. It is often employed as a generic term, or to refer to a single economic entity.

Beyond these terms, which appear frequently in articles to describe economic agents, the vocabulary of the press also draws on a more specific register, speaking about *filiales* (subsidiaries, affiliates), *sites* (facilities), *unités de production* (production units), *usines* (plants, factories), *multinationales* (multinationals), *magasins* (stores, shops), and so on. The term *établissement* (establishment), seldom used in the press, generally denotes a production facility.

For enterprises themselves as statistics users<sup>164</sup>—particularly the largest units ("large accounts" in INSEE parlance)—the terms that recur most often in their requests to INSEE are *entreprises* and *sociétés*.

The "actors in the regional public debate"—to use the INSEE expression—tend to express concerns of a more cross-sectional kind, reflecting the context of local economic analysis. When they focus on "enterprises", it is often with the aim of identifying the decision-making centre, the head office. They request information on *filiales* (supply chains) rather than on *filiales* (subsidiaries, affiliates). The reason is that their work often seeks to assess the impact of an economic event on the set of sectors concerned and the repercussions on their local area. The notion of "functions" often occurs in their requests. The economic unit is equated with a set of integrated or outsourced functions. These local players want, for example, to separate the innovation function in order to evaluate its potential. They want to capture the reality of subcontracting. The concept of "networks" also features prominently in their approach: what are the networks? what are their activities, their internal organization, and so on?

Others users of business statistics often have questions pertaining to markets. They speak of *competitors*, *suppliers*, and *potential customers*. They may also identify a formal status (non-profit organization, professional person, etc.) or an activity performed (florists, industrialists, etc.). However, the generic term most often employed is *entreprise*. Through this term, the user may be seeking information on local units (establishments), firms or—more seldom—groups. INSEE examines the request to identify the best-suited observation level.

<sup>163</sup> See INSEE internal document (note) no. 034/E230 of 26 May 2006, "Vocabulaire utilisé par les journalistes de la presse économique".

<sup>164</sup> See INSEE internal document (note) no. 022/E230 of 27 March 2006, "Vocabulaire utilisé par les utilisateurs externes dans leurs demandes adressées à l'INSEE".

### 13.2 Standard conceptual frameworks do not solve the problem

The CNIS Working Group's exploration of the definition of statistical units provided a reminder that the major disciplines dealing with players in the production system also use the generic term *enterprise* to designate different realities. There is no legal definition of the enterprise: the concept of enterprise belongs to the economists' universe.

❶ In economics, we can summarily identify two approaches to the enterprise. The structuralist approach characterizes the enterprise on the basis of its organization. The contractualist approach characterizes it on the basis of the contracts that link its different actors together. Both approaches seek to define the term "enterprise" with precision. However, the term refers sometimes to independent legally defined firms, sometimes to EGs. Other studies by economists are less attentive to the choice of designation and alternate between enterprise, firm, and company to refer to the same category of actor.

❷ The law recognizes only legal or natural persons as subjects. Both categories may engage in economic activities. Much legislation therefore rests on the concept of "firm". However, the French Business Code (Code de Commerce)—the reference document for legal obligations—sometimes implicitly refers to a concept of the enterprise that is wider than the firm. The law also takes into consideration the different areas of economic activity in which the enterprise operates. Sometimes, the law goes beyond the notion of the firm. This is notably the case in labour law, with the creation of the concept of "economic and social unit", for the introduction of works committees (*comités d'entreprise*). Likewise, although the group of firms has no legal personality, it is the concept deemed relevant by the Labour Code (Code du Travail), which refers to the Business Code for the definition. Some competition legislation refers to the notion of "related enterprises".

❸ In accounting, non-consolidated (individual) accounts are prepared at the firm level. Accounting standardization, however, provides valuable inputs for the economic representation of EGs, notably via the definition of the scope of consolidation. But a debate persists on the entity covered by consolidated financial statements: is it an extended description of the group head or of the entire group? Within the same French regulation<sup>165</sup>, the descriptive terms used alternately reflect one or other approach. Moreover, this regulation also applies the term "enterprises" to controlling or controlled entities, which is not totally consistent with economic analysis.

### 13.3 A situation observed in most countries

France is not the only country confronted with terminological problems. Faced with the growing complexity of organizational forms of economic units, statisticians strive to develop rigorous definitions of the entities that they observe.

By way of illustration, we can discuss the case of the United States. Until 1992, the economic census prepared every five years provided material for a report entitled *Enterprise Statistics*. The data collected in the census and pertaining to *establishments* (industrial or service units, in a single location, producing or distributing goods or services) were aggregated at *company* level (companies being the units of activity comprising all fully-owned or controlled *establishments*). Various statistics were compiled by activity and workforce-size categories. The report was discontinued. However, another operation, entitled Statistics of U.S. Businesses, supplies annual data also relating to *establishments* and *enterprises* (the latter being defined as units of activity comprising one or more fully-owned or controlled resident *establishments*). The documentation on the operation clearly states that the entity referred to as a *company* in the *Enterprise Statistics* report is designated by the term *enterprise* in the Statistics of U.S. Businesses. This is an example of the situation where two different terms are used to denote the same reality.

### 13.4 Additional difficulty due to the paradigm shift

#### ❶ The designation

<sup>165</sup> Regulation no. 99-02 of 29 April 1999 on consolidated financial statements of commercial firms and public enterprises amended by CRC regulations nos. 2000-07 of 7 December 2000, 2002-12 of 12 December 2002, 2004-03 of 4 May 2004, 2004-14 of 23 November 2004, and 2005-10 of 3 November 2005

With the launch of profiling operations, the French official statistical system is managing units of a different nature—firms and units reconstituted by profiling—that will need to be named. Two concepts emerged from our exchanges in the CNIS Working Group: *entreprise* (enterprise) and *branche opérationnelle de groupe* (group operating segment). Some Group members were in favour of designating these new units as “enterprises”. One of their arguments is that the EU Regulation on Structural Business Statistics (SBS) is, in their view, compatible with the approach initiated—despite the need to “carve up” some legal units. The regulation defines the enterprise as “the smallest combination of legal units that is an organizational unit producing goods or services, which benefits from a certain degree of autonomy in decision-making”.

Outside the statistical sphere, however, the term enterprise refers to a generic notion more than to a precise definition. The ambiguity on the entities signified by this term could raise major problems of comprehension of the statistics based on the new units—all the more so as the statistical simulations show a perceptible distortion of economic analyses. It seems necessary, therefore, to clarify the concept on which these analyses rest. The change in the designation of the statistical unit observed could be one factor in the clarification.

The discussions in the CNIS Working Group suggested the usefulness of preserving two levels of analysis, depending on the issues addressed. One level refers to the new units, defined by their autonomy, and seems relevant for describing economic activity; the other is suited to a more comprehensive approach for dealing with financial approaches and strategies. This report has chosen the technical terms of intermediate statistical units (ISUs) and overall statistical units (OSUs), but other designations could be envisaged.

Two levels of analysis, depending on the issues addressed

Legal status	Terminology used in this report	Possible designation	Issues addressed
- Unincorporated enterprises - Independent firms - EGs	overall statistical units	1. EGs or 2. Enterprises	Strategies, in terms of financing, mergers & acquisitions, location, investment, innovation/R&D
- Unincorporated enterprises - Independent firms - Operating segments of EGs	intermediate statistical units	1. Enterprises or 2. Kind-of-activity units	Economic activity

## ② Transition phase

Another difficulty stems from the transition phase that will be required to complete the profiling operations. During this period, profiled sectors will coexist with sectors still composed of legally defined firms only. It seems essential to be particularly attentive to the communication accompanying the dissemination of data in this transition phase.

## ③ Making the series consistent

Lastly, a major priority in profiling should be to achieve of series consistency. To avoid artificial jumps in the series due, for example, to the transfer of activities to subsidiaries, the series must be back-cast. Profiling is a way to impart significance to the published data. In cases where profiling attenuates aberrant economic patterns, some Working Group members underscored the importance of noting the effect when disseminating the data. This difficulty is an argument for systematically back-casting the series when a profiling operation is carried out.

## 13.5 Chapter conclusion

From the many discussions in our different subgroups, it appears that the denomination of the new units, firms, and units reconstituted by profiling is essential to a proper understanding of the statistics produced. Experienced users believe that the term enterprise is perfectly suited to describing the reality of these units. Choosing this term would also ensure consistency with the definition adopted by the EU Regulation on Structural Statistics.

However, the overview of the terms employed in the press or in the economic literature is an incentive to exercise great caution. The term enterprise is often used in a generic sense to designate very diverse organizational forms. Opting for the term could make users forget the novelty introduced with the aim of making statistical results more meaningful—thus counteracting INSEE's determination to shed fuller light on economic reality.

The choice of terminology is purely a communication issue. How should we address different users to ensure that there is no ambiguity on the content of the information disseminated and to make them aware of the changes introduced in the series? Beyond the selection of the term to designate the new units, a broader communication strategy is probably required. Working Group members repeatedly emphasized the importance of this supportive action for communication plans and educational efforts.

## 14 Working Group recommendations

**Preamble:** The remit of the Working Group (hereafter WG) was to examine the potential contributions of the observation of enterprise groups (EGs) to the relevance of structural statistics. The WG proceedings have shown that these contributions can be significant. They would largely result from a redefinition of the “enterprise” statistical unit, a change whose impact would be confined to firms that are EG subsidiaries. This redefinition constitutes the WG’s key recommendation.

The enterprises thus redefined would be of very diverse size because of the simple fact that nearly 90% of the 35,000 EGs represented in France have fewer than 250 employees in France. The WG devoted its attention, in varying degrees, to large, medium-sized, and small enterprises.

The WG also wishes to emphasize that its focus on EGs, and sometimes on the largest among them, should not be interpreted as an invitation to pay less attention in the future to SMEs, which raise issues totally unrelated to the analysis presented here.

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**Whereas 1** In regard to economic activity, the WG believes one should distinguish the legal approach from the economic approach, thereby separating the notion of legally defined firm from that of enterprise, which should possess a certain degree of autonomy in decision-making.

**Whereas 2** In regard to EGs, the WG notes that subsidiaries generally do not possess true decision-making autonomy, which is vested either in the group as a whole or, in some cases, in its operating segments. In consequence, the enterprise, as an autonomous economic actor, and when it consists of an EG, is actually embodied by the total group or by each of its operating segments. The WG therefore believes that the definition of the “enterprise” statistical unit should be strictly based on this observation. As a result, an EG subsidiary would no longer necessarily be defined as an “enterprise” statistical unit in its own right. The WG notes that such a change is consistent with the EU Regulation on Statistical Units.

**Whereas 3** The WG notes that the decision-making autonomy of operating segments, when these exist, is never total with respect to the EG itself. The WG consequently believes that, for the purposes of business statistics and depending on the field of analysis, two potential levels of analysis should be considered: the EG as a whole and the operating segment.

**Whereas 4** The WG notes that, when it exists, the multinational dimension of EGs takes precedence over their territorial dimensions. This observation generally applies both to the EG as a whole and, where relevant, to its operating segments. In consequence, the WG believes that, in such cases, the autonomous economic actor is the enterprise as a whole, i.e., in its total (global) dimension.

**Whereas 5** The need for information—in particular, in connection with public policies such as EU statistical requirements—primarily concerns economic activity performed on national territory. In this context, with regard to multinational enterprises, observation must therefore be confined to the territorial truncation of their activity. The WG thus believes it is necessary to identify the truncation (restriction) to French territory for all multinational enterprises or EGs.

### Recommendation 1

With regard to EGs, the WG recommends the following choices of statistical unit:

for the key statistics and particularly those relating to the production function: each of its operating segments, when the EG is organized into such segments, otherwise the EG as a whole;  
for areas where the “operating segment” level is visibly unsuitable or inadequate (particularly for financial aggregates), the EG as a whole.

### Recommendation 2

With regard to EGs, and for statistics relating to French territory, the WG recommends the following choices of statistical unit:

for the main statistics and particularly those relating to the production function: each of the French territorial truncations of its operating segments, when the EG is organized into such segments, otherwise the EG as a whole;  
for areas where the “operating segment” level is visibly unsuitable or inadequate (particularly for financial aggregates), the French territorial truncation of the EG as a whole.  
Either unit would replace the legally defined firm as statistical unit.

**Recommendation 3**

The WG emphasizes that the introduction of new statistical units must not diminish the supply of information on sub-national levels. The WG therefore recommends that the introduction of all new statistical units should be accompanied by that of its local units (establishments).

**Recommendation 4**

Having observed (1) that the activity of large EGs should be analyzed at the global level, i.e., without restriction to a specific territory, and (2) that the notion of EG nationality reflects reality, the WG recommends the creation of a long-term system to disseminate periodic information on the foreign activity of French groups. Such an information system should satisfy future European requirements in this area (FATS). The WG thus proposes that statistics defined on the basis of national control (French-controlled economic activity) should be added at regular intervals to the standard key structural statistics defined on a territorial basis.

**Recommendation 5**

Having observed the significant share of intra-group flows in external transactions, the WG recommends that statistics on such flows, insofar as they involve French external trade, should be published at regular intervals with a breakdown into their two components: exports and imports.

**Recommendation 6**

The WG recommends the expansion of profiling operations to define, in consultation with the EG, the operating segments to be chosen as statistical units where applicable. The WG recommends basing this definition, in particular, on the IAS 14 standard (which requires EGs to publish information by activity sector). The WG notes that the scope of the EG taken into account may consequently diverge, in one way or another, from the scope defined on the basis of the majority-control criterion, to the benefit of the scope of consolidation.

**Recommendation 7**

The WG notes that some firms have no economic autonomy and typically depend on an EG from which they are legally distinct. The WG recommends that these firms should be included in the possible future profiling of the group.

**Recommendation 8**

The WG notes that some networks are organized in a similar manner to EGs. It also points out that most large entities in the tertiary sector combine EGs and networks. The WG therefore recommends that profiling process used to define “enterprise” statistical units should be extended to these complex entities.

**Recommendation 9**

The WG observes that different network forms play a major role in tertiary sectors. It recommends the introduction of a new “network” statistical unit. This would allow the regular observation of the dominant network forms: franchises and cooperative groupings. The WG accordingly proposes the creation of a register of network heads, to be updated through regular surveys.

**Recommendation 10**

The WG recognizes the existence and structural role of other network forms besides the dominant forms (franchises and cooperative groupings): subcontracting, partnership, strategic alliance, local production systems, shared R&D, etc. The WG considers that these other forms do not justify the introduction of new statistical units monitored in a register; however, it recommends observing these other organizational forms through occasional surveys in order to identify and quantify them better.

**Recommendation 11**

The new statistical units that the WG proposes to introduce do not directly possess legal personality. As the process leading to the introduction of some of these units requires close cooperation between official statisticians and EGs, the WG recommends that the resulting collection of statistical data should be stipulated in contractual agreements. These would replace any corresponding statistical obligations that would apply to the firms defining the new units. The WG asks that all the legal aspects of this recommendation should be examined by the unit in charge of these issues at INSEE.

**Recommendation 12**

The WG requests that the CNIS Confidentiality Committee should be instructed to examine the application of statistical confidentiality rules to the new statistical units that the WG proposes to introduce.

### **Recommendation 13**

The WG recommends the application of all resources needed to attain consistency in the official statistical system, particularly between annual and sub-annual statistics. Among these resources, the WG emphasizes the introduction of a statistical register available to the entire official statistical system, allowing the sharing of the same units and therefore of the same concepts such as autonomy and control. Concerning national accounts, which draw on annual and sub-annual business statistics, the WG emphasizes the need to preserve consistency in the publication of different versions over time, from quarterly accounts to final annual accounts. The WG notes that maintaining such consistency may require the supply of additional structural or short-term statistics, as the regulatory frameworks of business statistics and national accounts (ESA) have not been harmonized.

### **Recommendation 14**

The WG asks for an extension of the expert review begun at CNIS as part of the WG's proceedings. The aims of the review are (1) to arrive at a better description of the nature of enterprise control and (2) to define, if the sources allow, a "governance" code and its different modes of implementation. The enactment of such a code would allow the production, on demand, of statistics on the population of "family-owned" enterprises (entreprises patrimoniales).

### **Recommendation 15**

The WG observes that "listed" (publicly traded) EGs form a distinct population for which specific information needs have been voiced. The WG consequently recommends the regular publication of statistics to provide a fuller picture of their economic weight, business development, etc.

### **Recommendation 16**

The WG recommends that care should be taken to ensure the clarity of the terms that will be chosen to designate the new units (which this report refers to as OSUs, ISUs, TrOSUs and TrISUs for the sake of convenience only); consideration should also be given to the communication that should accompany the statistics prepared on the basis of these units.

### **Recommendation 18**

The WG notes that many applications of business statistics (including national accounts) require the availability of long-term series, but that the introduction of new statistical units will entail breaks in series. While realizing that intrinsic and often insurmountable difficulties preclude the back-casting of all statistical series over a long period, the WG asks that all reasonable resources should be applied to satisfy these inter-temporal comparability requirements as best as possible.

### **Recommendation 19**

For lack of time, the WG was unable to extend its analysis of the current situation and its proposals to the special cases of investment funds and the financial sector. Regarding the financial sector, the analysis should take into account (1) the EGs in the sector (particularly their non-financial firms) and (2) the firms that operate in the sector but belong to non-financial groups. The WG asks for this analysis to be conducted shortly, in conjunction with the relevant statistical offices. The findings should be published in an addendum to the present report.

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*The 18 recommendations above were approved by the CNIS "Business Statistics" Cross-Sectional Task Force at its extraordinary meeting of 26 April 2007, devoted to the presentation of this draft report (see minutes of the meeting).*

*Only one recommendation (no. 17, see below) was not approved, the Task Force having requested a follow-up study specially focused on the issue of workforce-size thresholds.*

### **Recommendation 17**

*Concerning the new statistical units recommended in this report, the WG recommends that their workforce size should be defined as the sum of the workforces employed by the different firms that compose them.*

*For purposes of structural statistics, the WG recommends the definition of five “linkage” or “connection” thresholds (seuils d’ancrage ou de raccordement) in the official statistical system. The thresholds should be used when a segmentation by unit size is relevant, and would allow comparisons between sectors and over time. The thresholds would not be exclusive: others could be defined for specific sectors or topics analyzed.*

*The WG proposes the following identification of relevant subpopulations:*

*Units with no salaried employee (self-employed professionals).*

*Units with fewer than 20 salaried employees (with a distinction for units with 10-19 salaried employees when useful, particularly for complying with the EU Regulation on Structural Business Statistics [SBS]).*

*Units with 20-249 salaried employees (with a distinction for units with fewer than 50 salaried employees, when necessary);*

*Units with 250 or more salaried employees (with a distinction for units with 2,000 or more salaried employees, when useful for analysis).*