Profiling: a new and better way to apprehended the globalization

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Abstract
French foreign trade statistics are traditionally calculated by Customs for trade in goods, and by the Banque de France for trade in services. These statistics are prepared on the basis of data on the legal units. INSEE provides the Customs and Banque de France statistical offices with a copy of its statistical business register (SIRUS) to serve as a reference.

The INSEE statistical business register is fed directly by the structural statistics production system (ESANE) with the export turnover figures declared by companies in their profit and loss accounts.

It is therefore possible to calculate export statistics directly on that basis. While these statistics do differ somewhat from the official statistics of the Banque de France and the Customs, mainly due to differences between their sources, they are nonetheless of very high quality. The main contribution of the statistical business register in this respect is that it makes it possible to calculate statistics on the basis of units other than the sole legal units: for profiled enterprises on the one hand, and groups on the other. In these times when globalisation has come to play such a prominent role in the French economy, such figures can prove precious for economic analyses.

This article first describes the French statistical business register system and the way to define the profiled enterprises. Then, it presents foreign trade statistics calculated from the statistical business register at legal unit and enterprise levels showing the impact of moving to the enterprise unit on French trade statistics.

Keywords: Business Register, trade statistics, statistical unit
Introduction

In France, there is not only one business register but also a network of 4 business registers. The French system is based on 3 so-called “authentic source” business registers, each dealing with one type of statistical unit, and a so-called “statistical” business register (called SIRUS) concatenating all the different information and serving as the sole basis for all statistical operations requiring a survey frame of reference or sampling frame.

The three “authentic source” business registers are:
- SIRENE: the administrative register of the legal unit (UL 1 to 10 in the figure 1);
- LIFI: the statistical register of enterprise group (G1 and G2 in the figure 1);
- BCE: the statistical register of enterprise (E1 to 10 in the figure 1).

The diagram below shows the different statistical units managed by the business registers and the links between them.

Figure 1: Links between types of unit and business registers
1 – French statistical business registers

This chapter provides a brief description of each business register.

1.1 - SIRENE: the backbone of the system: the administrative business register of legal and local units

SIRENE is an inter-administrative business register created in 1973. It is an exhaustive business register of legal units which serves for exchanges between administrations. It contains a single identifier shared by all the registers of French government (taxes, customs, central bank, etc.).
The business register records the identification of all the legal units and their establishments (local units), whatever their legal status and sector of activity (industry, retailers, trades people, professions, farmers, local authorities, banks, insurance companies, associations, etc.), located in Metropolitan France (including Corsica), and in Guadeloupe, Martinique, French Guiana, Reunion, Mayotte, Saint-Barthélémy, Saint-Martin, and Saint-Pierre and Miquelon. Public and private bodies and foreign companies with a representative or activity in France are also listed (Articles R.123-220 to R.123-234 of the Commercial Code).

INSEE is responsible for identifying in the business register:
- Natural persons working independently in a non-salaried profession (e.g. retailers, doctors);
- Private legal entities (e.g. limited companies) or public legal entities subject to commercial law (e.g. EDF); institutions and services of the State and local authorities, and their establishments;
- associations, in certain cases.

The SIRENE business register therefore contains all natural persons or legal entities which:
- are listed in the Companies Register;
- are listed in the Trades Register;
- have salaried employees;
- are subject to certain fiscal obligations;
- receive public financial transfers.

SIRENE contains:
- more than 10 million active legal units;
- almost 12 million active establishments.

1.2 - LIFI: the business register of groups¹

A group of companies is an economic entity formed by a set of companies, which are either under the control of a single company, or that “controlling” company itself. Control over a company consists in holding the power to appoint the majority of its directors.

¹ The definition of the contours of the group is obtained on the basis of information on the financial links between legal units.
The French statistical definition currently in force takes the absolute majority of voting rights as control criterion for defining the contours of groups. The restricted perimeter or “core” of the group as being the set of companies in which the parent company or head of group holds over 50% either directly or indirectly; the majority of the parent company is not held, either directly or indirectly, by any other company. In this definition, each group forms a separate set of companies from all others;

The LIFI business register identifies groups and contains the links between the legal units within those groups (core and extended perimeter).

<table>
<thead>
<tr>
<th>Box: Typology of groups and non-group legal units</th>
</tr>
</thead>
<tbody>
<tr>
<td>➢ <strong>Foreign multinational groups</strong> (GET-MNE): these are groups having at least one subsidiary in France but whose decision-making centre is abroad: 16,000 groups;²</td>
</tr>
<tr>
<td>➢ <strong>French multinational groups</strong> (GFR-MNE): these are groups having at least one subsidiary in France but whose decision-making centre is in France: about 5,000 groups</td>
</tr>
<tr>
<td>➢ <strong>Franco-French groups</strong> (GFR-FRA): these are groups that only have French subsidiaries: about 65,500 groups.</td>
</tr>
<tr>
<td>➢ <strong>French legal units</strong> (IND-FRA): these are legal units that do not belong to a group and whose registered office is in France: more than 3.7 million legal units</td>
</tr>
</tbody>
</table>

1.3 - The Enterprise Creation Database (BCE): the register of enterprise

Having noted that it was not relevant anymore to consider only legal units, to produce meaningful business statistics and to respect the European regulations³, it has been decided to take account of the concept of enterprise⁴ in business statistics (*Husseini-Skalitz A.2011*)

To do so, use of “group” units is essential. Ultimately, a “French” enterprise (the basis for “French” statistics), will therefore be:

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² Figures for the 2013 fiscal year for units not in the financial sector.

³ Regulation 696/93 on statistical units, the new Regulation on business registers (177/2008)

⁴ An enterprise is defined 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 especially for the allocation of its current resources. An enterprise carries out one or more activities at one or more locations.
either an independent (non-group), (French) legal unit (e.g. enterprise E5 in the figure 1);
- or the French footprint of a whole group of legal units (e.g. enterprise E1 in the figure 1);
- or the autonomous part of the French footprint of a group of legal units (e.g. enterprise E2, E4 in the figure 1).\(^5\)

The latter two types of enterprises mentioned above are more commonly referred to as “profiled enterprises” and are managed by a specific business register: the Enterprise Creation Database (BCE).

In order to define the perimeter of the French enterprises, two method of profiling are used to identify these enterprises inside each group (Jean-Marc Béguin and Vincent Hecquet 2014):

- The largest groups\(^6\) present in France, or the most complex ones\(^7\) are profiled “manually” (meaning further to meetings with representatives of the groups) by the members of a specialised division of INSEE. It contains some 55 groups. This corresponds approximately to groups with more than 10,000 employees in France. They
- The other groups are profiled “automatically”. It contains approximately 80,000 groups.

1.4- SIRUS: the French statistical business register

SIRUS stands for “system of identification in the business register of statistical units” and is a statistical business register of statistical units, in particular of enterprises within the statistical meaning of the term (see definitions below).

The main objectives of SIRUS are the following:

- To list groups and enterprises (within the statistical meaning of the term), and the legal units and establishments that comprise those enterprises. SIRUS records the links between the various statistical units. For all these units, SIRUS also records such characteristics as turnover, sector classification (APE) and salaried headcount, thanks to

\(^5\) Which does not necessarily mean that it will be composed of a whole number of legal units, as in certain rare cases, legal units may be split between several enterprises, as indicated in Paragraph 1 of the definition.

\(^6\) In terms of added value generated on French territory.

\(^7\) By “complex” as opposed to “simple”, we mean groups that have a large number of subsidiaries and multiple activities.
updates from a multitude of sources (the other business registers, but also from statistical surveys).

- **To provide** business statisticians with **reference populations**. In this way, at a given moment in time and for a given reference period, an enterprise will be allocated to the same reference population in all surveys and will have the same characteristics in all of them.

- **To provide new statistical information**, in particular the **classification of enterprises in four categories** (micro-enterprises, small and medium-sized enterprises, intermediate-sized enterprises and large enterprises) as described in detail in the box below.

- **To manage the “statistical termination” of units**. This will make it possible to distinguish between a unit that has an economic activity and a unit that is legally active but has no economic substance.

- **To record the response burden** of statistical surveys, meaning the time spent by enterprises filling out statistical survey questionnaires. This will open up the possibility, on the one hand of knowing the real response burden on each statistical unit in SIRUS and, on the other hand, of implementing new sample coordination methods to reduce the statistical response burden further for those companies that have been subject to a heavy burden in the past.

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**Box:** The four enterprise categories defined by Decree 1354-2008:

- **micro-enterprises** employ fewer than 10 people and neither their annual turnover nor balance sheet total exceeds €2 million: a little under 3,000,700 enterprises;

- **SMEs** (small and medium-sized enterprises) employ fewer than 250 people, and [their annual turnover is less than €50 million or their balance sheet total is less than €43 million]: slightly over 135,000 enterprises;

- **ETIs** (intermediate-sized enterprises) employ fewer than 5,000 people, and [their annual turnover is less than €1.5 billion or their balance sheet total is less than €2 billion]: about 5,000 enterprises

- **Large enterprises** are those that do not fall into the previous categories: 245 enterprises.

SMEs, ETIs and large enterprises are mutually exclusive categories.
2 - Statistics on exports by businesses

The unit used for the collection and publication of “official sources” on French foreign trade is the legal unit.

The SIRUS business register which contains the different French statistical units and the links between them can be used to calculate statistics that are not based solely on legal units.

In particular, it makes it possible to take account of the “true” notion of the enterprise as defined in European Regulation No 696/93 on statistical units, by including the “group” dimension in business statistics.

As a general rule, when we base ourselves on the enterprise rather than the legal unit, a different image emerges of the productive fabric, with a twofold effect of concentration of exports among larger enterprises and reallocations between sectors, in particular from services and commercial subsidiaries to industrial and construction enterprises (J.M. Béguin, V. Hecquet, J. Lemasson 2012 and J.M. Béguin, 2014). This result is also seen in export turnover figures, as shown in the next point.

2.1 - A comparison between the traditional approach by legal unit and the approach by enterprise

For the tables in the following two parts, export turnover figures have been broken down:

- by legal unit (as has been done until now in official statistics) on the one hand (“LU” line);
- by enterprise (according to the Eurostat definition, taking account of the profiled enterprises in the place of the corresponding legal units) on the other (“enterprises”) line.

The box below presents the two different approaches using an example.
A Group G1 comprising 2 French legal units (UL1 and UL2), a subsidiary abroad (UL4, which of course is not taken into account in the French statistics) and UL3, an independent legal unit. Assuming that Group G1 is in Target 2, it therefore corresponds to a single enterprise E1, the characteristics of which are obtained simply by calculating the sum of the characteristics of the legal units (UL1 + UL2). As UL3 is an independent legal unit, it constitutes an enterprise in its own right. We therefore obtain the following results:

<table>
<thead>
<tr>
<th>Unit</th>
<th>Main activity</th>
<th>Turnover (in €K)</th>
<th>Export turnover (in €K)</th>
<th>Headcount</th>
<th>Total balance sheet (in €K)</th>
<th>Enterprise category</th>
<th>Type of enterprise</th>
<th>Taken into account for the calculation in LU</th>
<th>Taken into account for the calculation in enterprises</th>
</tr>
</thead>
<tbody>
<tr>
<td>UL1</td>
<td>Industry</td>
<td>100</td>
<td>0</td>
<td>7</td>
<td>500</td>
<td>SME-MIC</td>
<td>IND-FR</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>UL2</td>
<td>Commerce</td>
<td>150</td>
<td>50</td>
<td>9</td>
<td>300</td>
<td>SME-MIC</td>
<td>IND-FR</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>E1</td>
<td>Industry</td>
<td>250</td>
<td>50</td>
<td>16</td>
<td>800</td>
<td>SME</td>
<td>GFR-MNE</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>UL3</td>
<td>Service</td>
<td>3000</td>
<td>300</td>
<td>300</td>
<td>10000</td>
<td>ETI</td>
<td>IND-FR</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

2.1.1 – Breakdown of exports by enterprise category

Table 1: Breakdown of export turnover by unit category

<table>
<thead>
<tr>
<th>As a %</th>
<th>Large Enterprise</th>
<th>Intermediate-Sized Enterprise</th>
<th>Small and Medium-Sized Enterprises</th>
<th>Micro-Enterprises</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enterprises</td>
<td>50.5</td>
<td>33.9</td>
<td>12.8</td>
<td>2.8</td>
</tr>
<tr>
<td>LeU</td>
<td>27.8</td>
<td>47.9</td>
<td>20.9</td>
<td>3.4</td>
</tr>
</tbody>
</table>

Note: 50.5% of French exports are made by large enterprises when analysed by “enterprise”, while large enterprises represent just 27.8% of French exports when analysed by “legal unit”.

When viewed in terms of “enterprises”, exports are even more concentrated among large units. This is due to the fact that the majority of exports are made by small legal units belonging to
larger groups. These legal units are usually of intermediate or medium size, but belong to large groups. In France, contrary to what might be suggested by the view in terms of legal units, exports really are a matter for large entities.

2.1.2 - Concentration of exports

Table 2: Indicator of the concentration of export turnover according to the units on the basis of which it is calculated.

<table>
<thead>
<tr>
<th>As a %</th>
<th>Top 100</th>
<th>Top 101 to 1,000</th>
<th>Top 1,001 to 10,000</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enterprises</td>
<td>51.9</td>
<td>26.9</td>
<td>16.3</td>
<td>4.9</td>
</tr>
<tr>
<td>LeU</td>
<td>38.8</td>
<td>28.8</td>
<td>24.3</td>
<td>8.2</td>
</tr>
</tbody>
</table>

Note: The top 100 enterprises for exports represent 51.9% of French exports, while the top 100 legal units for exports represent only 39.8% of French exports.

This result illustrates once again that exports are mainly carried out by a few big players, most of which are groups of companies. It can also be deduced from these results that there would appear to be several units that export within these large groups. The weight of the top 100 exporters in enterprise terms really is much greater than in legal unit terms. Less than 100 enterprises represent over half of exports!

2.1.3 – Breakdown of exports by sector

Table 3: Breakdown of export turnover by main activity of units.

<table>
<thead>
<tr>
<th>As a %</th>
<th>Industry</th>
<th>Commerce</th>
<th>ICT</th>
<th>R&amp;D and administrative services</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enterprises</td>
<td>66.0</td>
<td>23.8</td>
<td>3.0</td>
<td>5.6</td>
<td>1.6</td>
</tr>
<tr>
<td>LeU</td>
<td>56.6</td>
<td>30.5</td>
<td>3.3</td>
<td>8.3</td>
<td>1.3</td>
</tr>
</tbody>
</table>

When groups of companies are taken into account in business statistics, the service-sector subsidiaries of industrial enterprises are reallocated to that enterprise. This explains why the weight of the goods production sectors increases to the detriment of the service sectors (services, commerce) when viewed in “enterprise” terms. The most obvious example of this is when an industrial group has a commercial subsidiary in charge of exports. When viewed in LU terms,
those exports will be classified as commerce, while in the “enterprise” view they will be counted as exports of industry.

2.2 – *Exports by type of enterprise*

The fact that SIRUS shows not only whether a unit belongs to a group or not, but also and above all to what type of group (French or foreign) it belongs, provides a particularly interesting insight into the factors that drive export strategy. The following two points are perfect illustrations of this.

2.2.1 – *Breakdown of exports by type of enterprise*

**Table 4 Breakdown of exports by type of enterprise**

<table>
<thead>
<tr>
<th>Type of enterprises</th>
<th>Number of enterprises</th>
<th>Number of exporting enterprises</th>
<th>Share of number of exporting enterprises (as a %)</th>
<th>Export turnover (in €K)</th>
<th>Export turnover (as a %)</th>
<th>Average export turnover per exporting enterprise</th>
</tr>
</thead>
<tbody>
<tr>
<td>French multinationals</td>
<td>5 637</td>
<td>4350</td>
<td>77.2</td>
<td>366 804 945</td>
<td>57.8</td>
<td>84 323</td>
</tr>
<tr>
<td>Foreign multinationals</td>
<td>15 969</td>
<td>8 408</td>
<td>52.7</td>
<td>188 704 708</td>
<td>29.7</td>
<td>22 443</td>
</tr>
<tr>
<td>Franco-French groups</td>
<td>66 500</td>
<td>21975</td>
<td>33.0</td>
<td>37 112 849</td>
<td>5.8</td>
<td>1 689</td>
</tr>
<tr>
<td>French independent</td>
<td>3 751 193</td>
<td>161299</td>
<td>4.3</td>
<td>42 062 147</td>
<td>6.6</td>
<td>261</td>
</tr>
<tr>
<td>Total</td>
<td>3 839 299</td>
<td>196032</td>
<td>5.1</td>
<td>634 684 650</td>
<td>100</td>
<td>3 238</td>
</tr>
</tbody>
</table>

This table shows the importance of French multinational enterprises when it comes to exports. They make over half of exports despite the fact that there are less than 5,000 of them that export. Flows between French companies and their subsidiaries abroad probably represent a large proportion of this, but cannot be isolated in SIRUS at present. Conversely, what is more surprising is that about one-quarter of French multinationals do not export at all! However, these
non-exporting multinationals are the smallest ones, as they represent less than 5% of the value-added and 7% of the workforce of French multinationals as a whole.

Foreign multinationals also export, but to a lesser extent. They probably do export largely to their parent company. These units that are resident in France provide multinationals with a base on the French market and most likely import more than they export.

2.2.2 – Breakdown of exports by type and category of enterprise

Figure 3: Proportion of enterprises that export by category and type of enterprise.

This graph clearly illustrates that the type of enterprise that has a larger impact on the propensity to export than the category of enterprise. Apart from SME-MIC which always export proportionally less than the others, Large Enterprises, Intermediate-Sized Enterprises and SMEs have a quite similar propensity to export for the same type of enterprise. However, the fact of being part of a French multinational group or not increases the likelihood of being an exporter.
Conclusions

This article shows the interest of being able to cross-compare information from different sources and therefore from different collection units in order to get the most comprehensive description possible of economic phenomena, as illustrated here by exports.

To do so, it is important to have a statistical business register capable of identifying the units of interest (enterprises in our case) and their links with the different (administrative or statistical) collection units to provide as much information as possible.
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